ASIAN MANAGEMENT INSIGHTS

SMU
SINGAPORE MANAGEMENT UNIVERSITY

Nation Branding

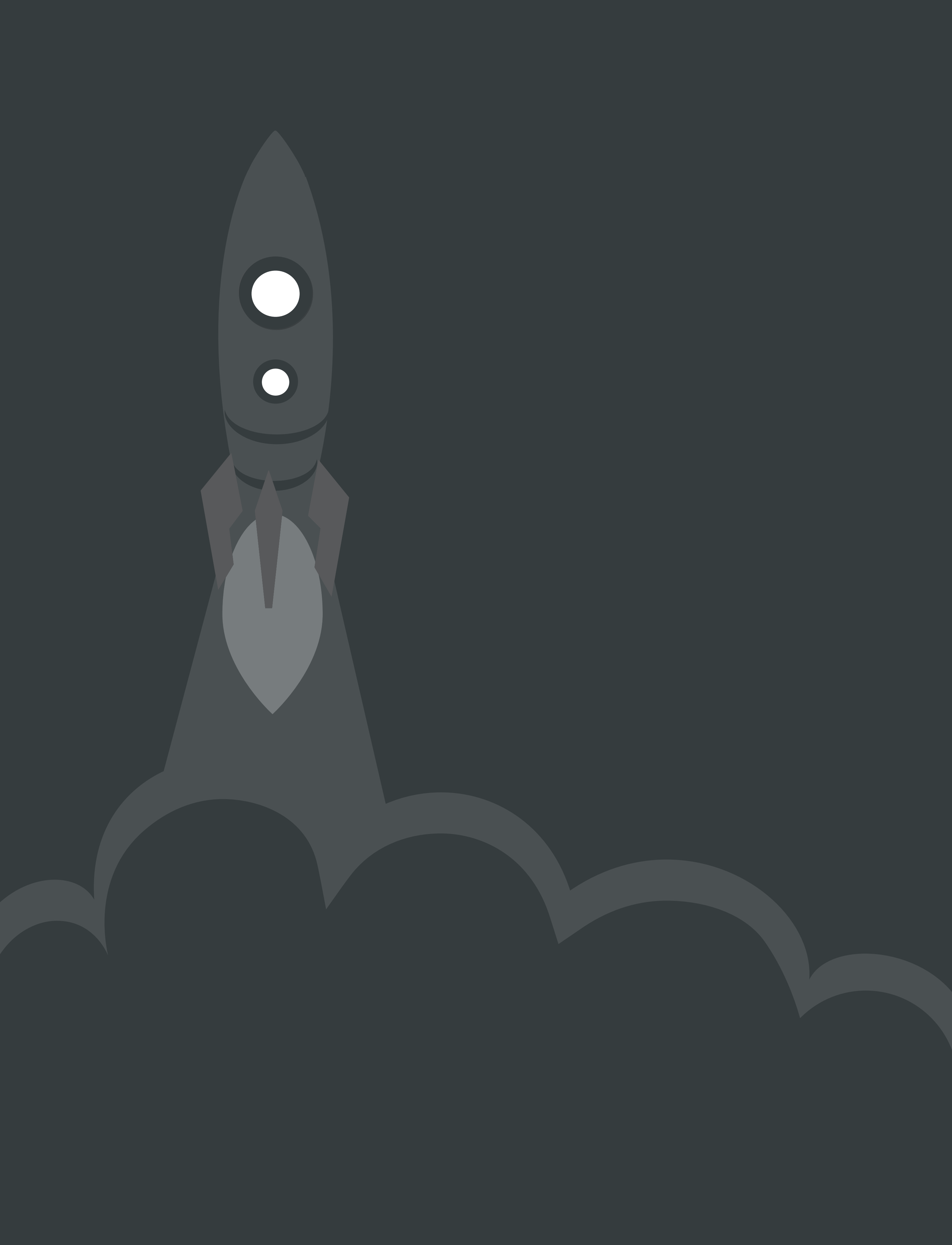
Emerging nations need national champions

Education & Leadership
An interview with Nigeria's former President Olusegun Obasanjo

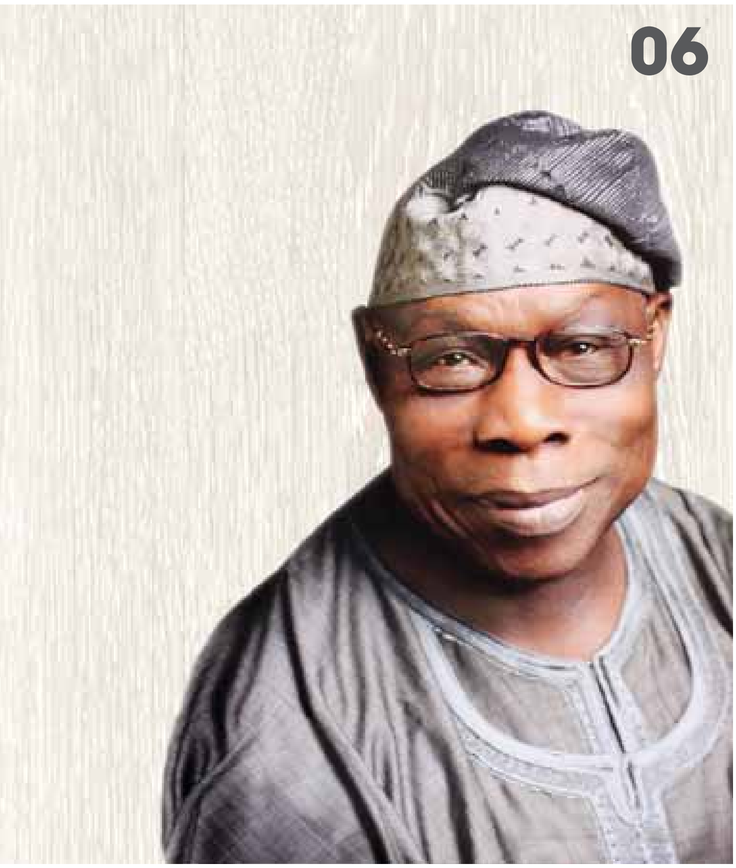
Rethinking Intellectual Property
For the 21st century

The New Dragon Dance
China's evolving growth model

VOL.3 S$16.00
ISSN 0231-5424



CONTENTS

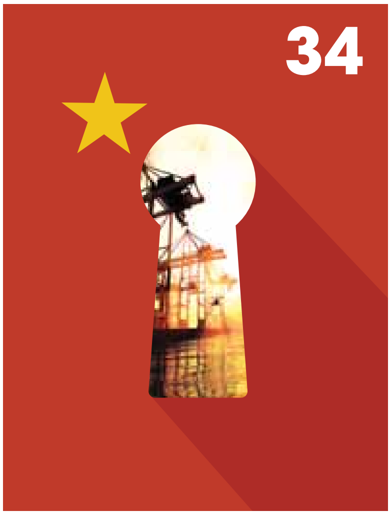


I do not think Africa is rising as much as say the Asian Tigers, but we have started waking up from our slumber.

- Olusegun Obasanjo, former President of Nigeria

AT THE HELM

VANTAGE POINT



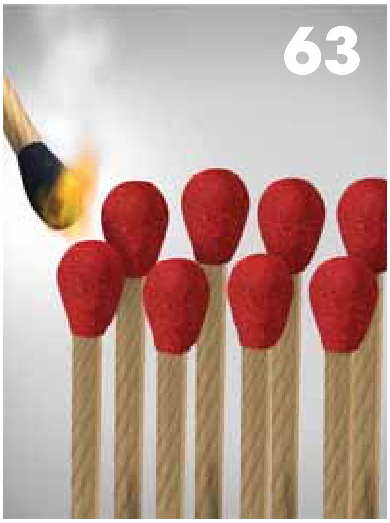
> While innovation is now ubiquitous, its evolution has been gradual.
>
> *- Philip Zerrillo, Editor-in-Chief, Asian Management Insights*

INDUSTRY WATCH

CASE IN POINT

EXECUTIVE BRIEF

PARTING SHOT



ASIAN MANAGEMENT INSIGHTS

Asian Management Insights (ISSN 2315-4284) is published biannually at a recommended retail price of S$16 by the Centre for Management Practice, Singapore Management University, 81 Victoria Street, Singapore 188065.

We welcome comments and letters to the editor should be sent with the writer's name, address, and phone number via email to editorami@smu.edu.sg. Letters may be edited for length and clarity, and may be published in any medium and at the Editor's discretion. All letters become the property of Asian Management Insights and will not be returned.

Submissions: We encourage submissions. Proposals for articles should be addressed to editorami@smu.edu.sg. Unsolicited manuscripts will be returned only if accompanied by a self-addressed stamped envelope.

Subscriptions: Please email enquiry to subscriptionsami@smu.edu.sg.

For further information, to advertise or request reprints, please contact: enquiryami@smu.edu.sg.

FROM THE EDITOR

The rustling of leaves

Earlier this month I watched Scott Kelly and Mikhail Kornienko touch down after nearly a year in space, 340 days to be precise. During their stay they managed to tweet the most spectacular photos of the earth to their followers. Who would have thought it possible to document and share their experience in this way even a few years ago? We are no longer strangers to scientific or technological innovation. While innovation is now ubiquitous, its evolution has been gradual. As Peter Drucker once observed, "Innovation opportunities do not come with the tempest but with the rustling of the breeze."

Nevertheless, few among us, with perhaps the exception of chief innovation officers and innovation units, have considered the social ramifications of innovation on business, geopolitics and the law. In this edition of *Asian Management Insights*, we explore this further.

In their article on 'Brand Breakout', authors Nirmalya Kumar and Jan-Benedict Steenkamp discuss how emerging economies are creating national brands and harnessing the country's state-owned enterprises to develop 'national champions'. Of particular interest are their insights on the acquisition of some of the world's luxury brands by Asian companies, ranging from leading couturiers and hotels, to some of the world's most fabled motoring brands. As Victor Hugo once wrote, "There is only one thing stronger than all the armies of the world: and that is an idea whose time has come." The migration eastward is clearly one of those.

Meanwhile, rumbles continue to be heard from our northern neighbour, with economists, analysts and business leaders asking whether or not China is in the throes of bracing itself for a hard landing. Our contributors think otherwise. George Hylden, for example, considers Made in China to be the new face of business model innovation. Sarita Mathur sees China's economy poised for a new normal. Its supply of unskilled labour may be diminishing, but it has a rapidly expanding educated and skilled workforce. China currently leads the world in its annual cohort of science and engineering PhDs, 30,000 in 2015. It may have declined membership in the Trans-Pacific Partnership, at least for now, but it is reinvigorating the Silk Road by continuing to develop multilateral relationships that go beyond trade in goods and services.

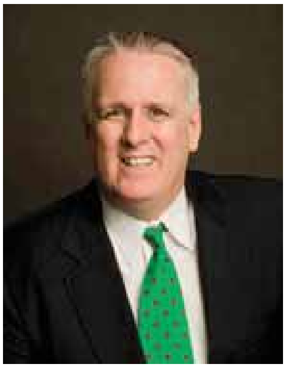
Today, innovation is intrinsically related to digital, web-based technologies that are driving the *new economy*—whose features include rapid change, hyper-competition and information sharing. As contributor Tim Jones points out in his article, these features are pushing us to re-imagine an intellectual property regime more suitable for the needs of the 21st century. Intellectual property is a significant stumbling block for Asian economies. In the case of Vietnam, its climb up the economic liberalisation ladder will not be easy, say contributors Duong Nhu Hung and Tran Quang Dang, citing industry compliance issues that include intellectual property concerns.

Suraya Sulaiman takes a deeper look at how the digital world and the ever present mobile-app have permeated our lives in more ways than we would like to admit, and queries: Will the digital advantage be solely the domain of the start-ups? No. She explains how large organisations can also leverage digital advantage for innovation. And a strategy is only as good as its implementation—says Robin Speculand as he takes us through some uncommon practices to achieve excellence in execution.

At the national level, Singapore's Smart Nation Initiative represents innovation in action. Contributors Foo See Liang and Gary Pan observe that smart city initiatives are a means to address denser, more diverse and growing urban populations. At the other end, serial entrepreneur Krating Poonpol illustrates how Thailand needs to develop an ecosystem, which, along with education, will be a springboard for successful start-ups there.

The march of innovation continues at the most basic level—and is becoming social. Charles Leadbeater analyses innovation's social function. Frugal innovation systems mobilise communities and create value through empowerment and efficiency. The lean, simple, clean and social characteristics of frugal innovation also offer a solution for the socio-economic challenges of our time, he says. Meanwhile, Ravi Chidambaram explores how one firm in Laos was able to provide affordable, off-grid renewable energy to underdeveloped rural communities through evolving business models that shy away from charity by sustainably balancing profit and social impact.

The bottom of the pyramid is now clearly on the radar screen of policymakers. This month we spoke to the former president of Nigeria, Olusegun Obasanjo, on economic and social developments in his country. The relationship between education and leadership is paramount, he says. "If you have education, but poor leadership, you won't get far. And similarly, if you have good leadership, but the people are not educated and armed with skills, you won't get far either."



DR PHILIP C ZERRILLO
Editor-in-Chief
Asian Management Insights
pzerrillo@smu.edu.sg

SMART IS THINKING BIG EVEN WHEN YOU ARE SMALL.

Investment and support for big ideas.

Singapore welcomes leaders in technology from across the globe to join us in finding solutions to some of the world's most critical challenges. In recent years, Singapore has made a name for itself as a startup haven, being ranked the most business-friendly country in 2014 by The Economist Intelligence Unit and also being listed in the Top 20 Startup Ecosystems Worldwide by the Startup Ecosystem Report. With connected infrastructure, easy access to major markets, a stable economy, a robust IT framework and large pools of investment capital, we're confident more global technology talent will see this as a great opportunity to discover new business opportunities and join us in building a Smart Nation.

Smart Nation SINGAPORE

Many Smart Ideas • One Smart Nation

www.smartnation.sg

EDUCATION AND LEADERSHIP: INDISPENSABLE FOR NIGERIA'S ECONOMIC DEVELOPMENT

The former President of Nigeria (1999 to 2007), Olusegun Obasanjo, talks about the nation's evolving transformation in this interview with Philip Zerrillo.

Africa is quite an unknown continent for many people. What are some of the historical legacies and issues that have made Africa what it is today?

Africa is a young continent that has been independent for just over five decades. To understand Africa, you need to look back at its history. Africa was colonised by four main colonial powers: Britain, France, Portugal and Spain. The flurry of independence started with Sudan in 1956; and by 1960 almost all nations, including Nigeria, were independent. Some obtained independence through protestation, some through negotiation and some through conflict. But the political, economic and social situation of all these countries at that time was about the same. The countries that were called 'moderates' were those without radical leaders, and were known as the Monrovia Group, while the more radical ones were dubbed the Casablanca Group. That was the situation until they all met in 1963 to establish a formal, continent-wide organisation known as the Organisation for African Unity (OAU).

So if I have to say what is right with Africa, I think it would be the ability of our leaders to form a continent-wide organisation, in spite of their differences, and in spite of the push and pull of our former colonial masters. The OAU helped to protect the territorial integrity of its member states and keep as sacrosanct the boundaries we inherited from the colonial masters.

So that was on the political side. In terms of economic development, these were also the heydays of the capitalists and socialists. However the radical leaders saw no reason to continue with the economic heritage they had inherited from the colonial powers, especially when they had the choice. I personally don't believe we were any better whichever way we went.

If I have to say what is right with Africa, I think it would be the ability of our leaders to form a continent-wide organisation, in spite of their differences, and in spite of the push and pull of our former colonial masters.

What has happened since those early days of independence?

We have had a spate of military coups. The feeling among the military elite was that the politicians were not doing well. And that was also our experience in Nigeria. But while the military were well meaning, they were also naïve. Moreover, their good intentions did not last too long before they too fell into the trappings of politics. But finally, whether it was a military or a one-party regime, we found out that sooner or later in countries that are very diverse in language, race, religion and economic disparity, democracy remains the best form of government to deal with inner contestations.

So when we came to the 21st century, we had four things going that were very important for Africa. One, for the first time, we were participating in a global UN-devised programme: the Millennium Development Goals, which set targets for various challenges such as the eradication of extreme poverty. Second, the African leaders came together and recognised the need to transform from the OAU to the African Union (AU). This was a markedly different constitutional act from the OAU charter, and was expected to accelerate unity and cooperation among the member states. Third, for the first time, the AU had a continental programme known as the New Partnership for Africa's Development. This was a strategic framework for pan-African socio-economic development, and something we had never had before. There was also a fourth initiative, the African Peer Review Mechanism, which was a voluntary self-assessment tool, and meant that we could decide ourselves if what we are doing is right or wrong.

Ten years into the 21st century, the *Economist* magazine came out with a banner headline, 'Africa Rising'. I do not think we are rising as much as, say, the Asian Tigers, but we have started waking up from our slumber. And what has made Africa get to where we are? The answer is the reform and transformations that have taken place in all our countries, particularly those that are related to pro-democracy and good governance. Some of our elections were disputed, but I believe a disputed election result is still better than no election at all. Social reform, healthcare reform and education reform, these are the things we are working on and have made improvements in what we do, where we are, and where we are going.

Coming specifically to Nigeria, what changes took place after independence?

At independence in 1960, we had three political regions, which were very lopsided. We did not have any industry as such. The first thing we needed to do was something about those three regions, but we didn't. As our political parties were also regionally based, it made it all the more difficult for them to come together. The 1963 census, for example, was problematic because we couldn't even agree on the size of our population! Then in 1965, riots broke out and the military was called upon to end them. The nepotism, corruption and lack of good governance at the centre led to a coup in 1966, and that was no good for us. Until then we had an ongoing national economic development plan. But the series of coups and civil disturbance issues diverted our attention from the economy to focusing on security and holding the country together.

In 1970 we ended the civil war and started thinking of a second economic development plan. What was different in the 1971 plan was that it really took our socio-economic development far more seriously than the first plan. It was the first time we had spoken of free education nationwide. Then in 1975 there was another coup, and when that ended in 1979, we established democracy. But thereafter, once again, not much attention was paid to economic and social progress. Primary education and primary health were stopped. However, during this time, 36 states were created out of the four regions, and that prevented the political administration from becoming lopsided. But from 1983 to 1999, the year I was elected president, it was like playing political musical chairs. As a result no one had the time to look at the economic and social issues, which should have been the key occupation of the government.

Your term in office was characterised by a commitment to economic and political reform. Nigeria's average economic growth rate doubled to six percent, and foreign reserves rose to US$45 billion in 2007 from US$3.7 billion in 1999. How has the country progressed since then?

During my term as President, we were able to build up enough foreign exchange reserves to pay off US$30 billion of debt, leaving the country almost debt-free. However from 2007 until the present, once again we have not progressed. Total reserves currently sits well below US$28 billion. And now the rainy day has come, and we do not have any umbrella above our head to protect us. Nevertheless we have been able to move politically from one regime to another peacefully and without any incident, and we have been able to sustain democracy and the rule of law.

What do you consider to be Nigeria's greatest concern today?

Youth unemployment. The National Youth Service Corps is an organisation set up by the government to instil values in the country's graduates, and involve them in the development of the country. Despite the shortcomings of the Nigerian government and the frailty of public confidence in its institutions, the consensus among leadership is that youth are the primary drivers of Nigeria's reliability and competitiveness given the exigencies of the global economy. In fact I personally feel very strongly that our youth are not merely our successors, but assets that we must utilise, and without whom we will not be able to progress. But today youth unemployment is more than 50 percent. That's like sitting on a gunpowder keg. And if that is bad in a country of over 180 million, try to imagine how daunting it will be if we still have over 50 percent unemployed in 2050 when we are expected to touch 400 million?

On the eve of the 21st century, the World Bank published a report noting that while the political situation in Nigeria had improved, there was a need to improve on dimensions such as equitable distribution, inclusivity, fairness, justice and state security. I have three thoughts on what is required to realise this: any policy introduced must complement youth empowerment and employment, joint security operations, as well as democratise these processes and promote governance.

What does Africa, and Nigeria in particular, need to focus on today to build a better tomorrow?

The AU needs to be stronger. We need leaders within the AU that can really stand on their own. But the AU needs to be strong, not only politically and military-wise, but also financially. Today the contributions of member states do not even cover the expenses of the head office.

We must also have economic integration in Africa, and that will result in its political integration. Africa has people and raw materials, so what it really needs for economic development are two things, education and leadership. If you have education, but poor leadership, you won't get far. And similarly, if you have good leadership, but the people are not educated and armed with skills, you won't get far either. Look at Singapore. What has made this country? It has no resources to speak of, If you have education, but poor leadership, you won't get far. And similarly, if you have good leadership, but the people are not educated and armed with skills, you won't get far either.

but it does have education and leadership, which led to its success. And that is why I say the two must go together.

Nigeria is part of the Economic Community of West African States, which is a 15-member regional group that promotes economic integration. It is a single, large trading bloc with free movement of people and goods, making it easy for businesses in Nigeria to access almost 360 million West Africans.

If I look at what Nigeria needs today, there are some key building blocks: reducing unemployment, developing health and education, advancement of women, and getting rid of religious and cultural hindrances. Providing employment opportunities is very important, but women's education is also a must, otherwise 50 percent of our population is being excluded from the mainstream. There's a great saying, "When you educate a girl, you educate the whole family." Also, the best form of family planning is women's education. So that is something we must take very seriously and it doesn't take much to do. If you give every child, male and female, nine years of basic education, you would have achieved this.

As for health, basic healthcare is the easiest way to deal with this. If that is good, how many people will require specialists? I believe the provision of free medical services to all pregnant women and children under the age of five is a must. So if you deal with this as well as education, you will have a healthy and educated population of people who are already empowered to fend reasonably well for themselves. And if then you encourage domestic and foreign investment, particularly in the area of agribusiness, your job is done.

Nigeria has at least 350 tribes and two major religions. The first point a leader must understand and accept is that diversity by itself is natural. And the second thing is that if it is natural, then you must accommodate the interests of all of the diverse complements of people you are managing. And where to start is your own office. So in my office, you will find only one or two people out of ten from my tribe. It is thus a must to make every tribe feel that they have a stake, and feel important. It's no more than that, really.

Olusegun Obasanjo
was the President of Nigeria from May 1999 to May 2007

Philip Zerrillo
is the editor-in-chief of Asian Management Insights and Dean of Post-Graduate Professional Programmes, Singapore Management University

NATION BRANDING

Emerging nations need national champions, and national champions need strong support from the state.

By Nirmalya Kumar and Jan-Benedict E.M. Steenkamp

A few years ago when we were researching the emergence of Asian brands, we decided to ask a few western friends if they could recall the Haier brand and its products. The answer was no. This surprised me, especially as the Chinese multinational is the world's number one white goods manufacturer. An indigenous Chinese brand, the Haier story reflects the westward migration of Chinese products, which is currently taking place hand in hand with the migration eastward of some of the developed world's most iconic brands.

Not so long ago, the so-called developed countries accounted for more than 80 percent of world GDP. Global brands were exclusively from the West. If, in 1990, emerging markets together accounted for 20 percent of global output, by 2010 this had doubled to 40 percent. And in 2013, it had exceeded that of the developed countries. Today emerging markets account for more than 75 percent of mobile phone subscriptions, 75 percent of steel consumption, 25 percent of financial assets worldwide and 75 percent of foreign exchange reserves, among other indicators. Little wonder then that western corporations are in hot pursuit of new business in those regions.

Emerging markets, especially China and India, have been snapping up western brands for more than 15 years.

The once hunted have now become hunters. In fact, the emerging markets, especially China and India, have been snapping up western brands for more than 15 years. Couturier Valentino was acquired by the Qatari royal family in 2012, while Aston Martin went to Kuwait in 2007. China now owns the glorious motoring brands of Saab (2011), Volvo (2010) and MG Rover (2005), just as India in 2008 acquired Jaguar and Land Rover. To say nothing of Ferretti Yachts, acquired by China's Weichai Group in 2012, or New York's Pierre Hotel, acquired by the Taj Group in 2005. Tetley Tea also went to India in 2000.

National champions

However, acquisition is only one of several means used by companies from emerging markets, not just China, as they trawl for global opportunities to expand beyond their local geographies. In our book *Brand Breakout: How Emerging Market Brands Will Go Global*, we advocate eight strategies for building brands–such as the 'Asian Tortoise' route of migrating to higher quality and brand premium; the 'Diaspora' route of following emigrants and tourists by tapping into ethnic affirmation and biculturalism segments; or then the 'Cultural Resources' route by focusing on the rituals and values a nation is renowned for.

In this article, we focus on the 'National Champions' route, as it is particularly germane to this region's emerging markets and their current state of development. As the name suggests, a national champion is a business enterprise selected by the government of a nation-state to spearhead its national effort in competing internationally in a particular industry, which could be natural resources, basic industries, intermediate goods, energy, consumer products, advanced technology, or services. The champion receives special treatment from the government, including subsidies, market protection in the form of tariffs and import restrictions, and firm-specific or industry-specific policies that foster its growth.

CREATING NATIONAL CHAMPIONS

The ***industrial policy*** rationale holds that certain sectors of the home economy are particularly valuable because they provide high-paying jobs and/or carry out high value-added business activities. Unless a country wants to remain a collection of screwdriver factories, the government must actively nurture home-grown firms. Tweaking industrial policy appeals to emerging markets that want their industries to grow in sophistication in the long term. China and India both use industrial policies to promote their national champions.

The ***strategic trade*** rationale argues that the state should maintain a home-grown presence in sectors where economies of scale are exceptionally large (often larger than the ability of any single national market to absorb output efficiently), barriers to entry are especially high, and rent-seeking behaviour is prevalent. Without state help, such sectors are subject to pre-exemption from other restrictions that would otherwise be imposed on foreign firms or rival states.

Meanwhile the ***national security*** rationale holds that countries must avoid dependence on foreign firms that might delay, deny, or constrain the provision of goods and services crucial for the proper functioning of the home economy or its security apparatus. Emerging markets do not want foreigners to control the supply and utilisation of their native resources such as energy and metals. For this reason, we find the largest national champions in extractive industrials, such as Coal India, Russia's Gazprom, the world's largest natural gas company, and Brazil's copper extraction firm, Vale. Such industries are considered to be fundamental to a country's sovereignty, wealth, security and development.

> Governments usually advocate the creation of national champions on the basis of industrial, strategic trade and national security policies.

NOT ALWAYS A CHAMPION?

National champions have their limitations. Preferential treatment may be so strong that it stifles the competitive rivalry that is necessary for continuous product improvement and the development of brands vital for survival in the global marketplace. National champions may also devour more resources than a more efficient private firm. And finally, the politically-driven process typically favours well-connected insiders over innovative outsiders.

There are also limitations on the ability of government bureaucrats to choose wisely, be it technology or staff. As a result, many national champions perform poorly. Some are more properly considered national basket cases rather than national breadwinners!

As the importance of a firm's nationality may diminish over time when it becomes multinational or globalised, the leaders of national champions may lose their ability or willingness to respond to the needs of local politicians where such a response might run contrary to corporate self-interest or sound business principles.

Building National Brands

Successful national champions need certain key characteristics to build strong consumer brands. A state can successfully incubate national champions into global brands, provided that government leaders consider three conditions—company, community, and competition (refer to Figure 1). We call this the 'C3 Framework'.

COMPANY

National champions frequently struggle to build strong brands as they lack a customer-based approach. Public policy-makers thus need to ensure that every national champion is empowered to orient its efforts to market needs, not political or product ambitions. As Ajit Singh, India's civil aviation minister charged with the turnaround of Air India, observed, "It is very difficult for the government to run any service sector business. For government employees, they are the kings; the customer is never the king." [1]

Meanwhile in the C-suite, there should be an emphasis on competence rather than political appointments, or the 'politics of patronage'. Along with business competence, national champions should be striving for worldwide learning, rather than having the 'home market knows best' attitude. The hiring of world-class global talent and leveraging integrated organisational learning processes that promote worldwide learning, rather than a home-centric view of the world, are vital preconditions for developing brand-building capabilities.

Finally, acceleration of the learning process on a worldwide scale is needed. Here various means are possible, including the acquisition of foreign companies to gain rare technological and brand-building expertise, rather than organic learning which could take many years. Another is the listing of the company on foreign exchanges, which introduces the brand to the world's most sophisticated bankers and analysts, and helps to attract foreign talent from the best business schools to influence the corporate culture and people.

In the C-suite, there should be an emphasis on competence rather than political appointments, or the 'politics of patronage'.

COMMUNITY

The state can play a positive role in the business community by helping to launch healthy national champions that are able to develop global capabilities. But public policy makers must also do their best to root out incompetence, corruption and cronyism. Competency in this context means being manned by highly educated bureaucrats who operate consistently and predictably, with openness and transparency, accountability, and honesty in decision-making and execution.

The state needs to support, rather than direct, business activities.

The state needs to support, rather than direct, business activities. This entails the setting up of economic and knowledge infrastructures in which national champions can seed and flourish. A supportive economic infrastructure is capable of protecting national champions for a short time against foreign encroachment, through subsidising R&D and financing state purchases. For national champions to be able to compete globally on quality, rather than price, the state must cultivate scientists, technologists and engineers to conduct first-rate R&D.

Ideally, the state will be restricted to a minority shareholding, which limits its ability to use national champions for rewarding clients or pursuing social policies. Pioneered in Brazil, the minority-shareholder model provides private investors with just enough power to insist on greater operational efficiency and managerial effectiveness. Further, by taking a minority stake, the state can assist more companies with the same amount of resources.

State support needs to be short-term and conditional on set market-based performance measures, rather than offering permanent and unlimited protection. Without clear limits on the duration and nature of state support, the company will never learn to compete. Market-based performance metrics force the company to focus on its customers, as well as its bureaucratic owners.

C3 FRAMEWORK OF FACTORS DETERMINING THE SUCCESS OF NATIONAL CHAMPIONS AS A GLOBAL BRAND

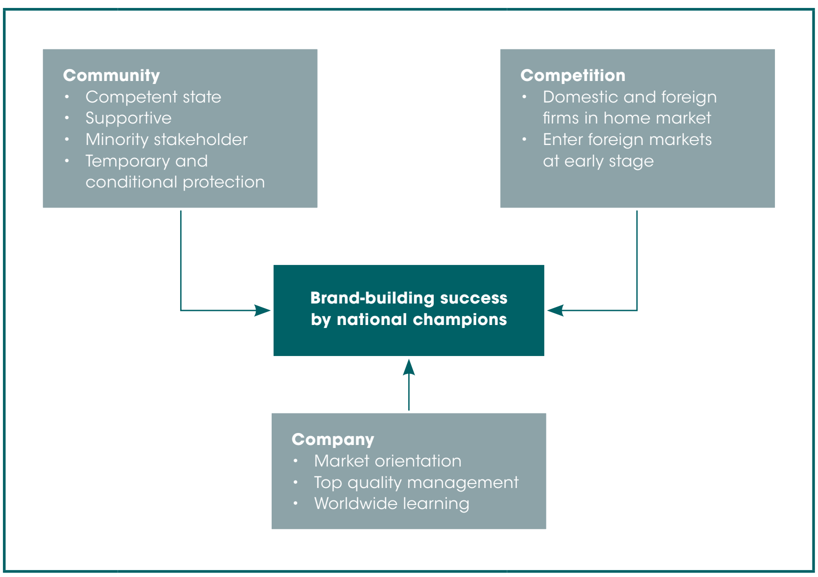


FIGURE 1 *Source: Brand Breakout: How Emerging Market Brands Will Go Global*

COMPETITION

Firms sharpen their skills by competing both in their home market and abroad. This means a focus on home market rivalry, rather than support for a quasi-monopoly. Monopolies breed complacency and stifle innovation. If a firm does not learn to stand on its merits, it has little chance of survival outside the home market.

Home market rivalry thus needs to be fostered. Industry boundaries no longer stop at national borders. Foreign market entry should be stimulated to enable national champions to improve their skills through competition. The earlier the national champion faces the rigours of global competition, the better it will adapt its operations for the market and adopt a customer-based brand-building approach.

Country-of-origin: An asset or a liability?

A nation's image is built gradually over time. Surprisingly, more than a few developed countries, including Germany, Japan and, until recently, South Korea, have had negative connotations associated with their image in the past. Centuries earlier, it took several attempts before German craftsmen were able to produce porcelain equivalent to that made in China, thereby establishing the now famous Meissen porcelain factory. Until as late as the 1970s, Japanese brands were synonymous with imitations and shoddy quality. That changed with the introduction of high quality vehicles at a competitive price. Then, as Japan moved up the quality chain, South Korea took over low-end manufacturing, and has now moved forward as a leader in electronics and cosmetics.

Historically there is no precedent of a country evolving into a developed economy without having some global

EMIRATES AIRLINES: GLOBAL BRAND AND NATIONAL CHAMPION

Emirates Airlines, a subsidiary of The Emirates Group, is the largest airline in the Middle East. Wholly owned by the government of Dubai, the carrier operates over 2,400 passenger flights per week, serving 142 cities in 80 countries across all continents. Founded in 1985, Emirates became profitable within its first year and has steadily built its network. From 2001-14, its compound annual growth rate was 17.1 percent for passengers, 21.7 percent for sales revenues, and 17.0 percent for profits—remarkable in a brutally competitive industry.

National security formed the rationale behind its founding. In the mid-1980s, Bahrain's Gulf Air began to cut back services to Dubai, which made the country less accessible, dramatically reducing its attractiveness for business and tourists, as well as threatening economic growth and development. As a result, the ruling royal family funded the founding of Emirates.

Emirates went on to make the right decisions and took the right actions in the three areas critical to a national champion's success (the C3 framework):

Community: Although the government of Dubai required the airline to operate independently of government subsidies, it supported the company in other ways. These included providing a first rate travel infrastructure, a dedicated terminal and tourist draw.

Competition: The small home market forced the airline to enter foreign markets and fly international travel routes. It was not an option. It was a necessity.

Company: The state appointed a well-credentialed industry veteran as the airline's first CEO, not a government bureaucrat. Four of the nine members in the C-suite were non-nationals. In its operations and governance, Emirates focuses on employees with business experience in general, and industry experience in particular. Its corporate philosophy emphasises openness to change, new ideas, diversity and opportunity. It views diversity as a defining strength and actively recruits the world's best and brightest. Today, Emirates' sizeable workforce hails from 161 countries.

brands emerge from it. Generally speaking, products from developed countries continue to have a high-quality image, whereas those hailing from India, China or Russia mostly decrease a brand's equity.

Yet consumer perceptions are known to lag behind reality, which means that one of the biggest challenges many emerging markets face as they globalise is the perception that their brands are inferior. So why do consumers care about a brand's country-of-origin when they can evaluate the product on its own merits and act accordingly? The answer is that, for whatever reason, most consumers are either unwilling or unable to make an assessment as they lack the capabilities to analyse the information. Instead, they rely on 'cues' that, in their perception, reveal something about the qualities of the product. These include its brand name and country of origin.

Four factors are associated with the image of a country: its economic development (which reflects its ability to manufacture), its culture and heritage, governance-related issues, and its people. In particular, lack of good governance is a key issue and negatively impacts the country-of-origin image. Many consumers, for example, still perceive China as a copyright pirate-infested zone and a supplier of poor quality, even tainted, goods.

Meanwhile the country-of-origin image can be viewed using six dimensions: quality (reliability), innovativeness, aesthetics, prestige, price/value, and social responsibility. While few developed countries score favourably on all dimensions, what differentiates developed countries from emerging markets is that the latter tend to rate low on all aspects except price.

Overcoming negative country-of-origin associations

Brands from emerging markets need to think about what is credible and what resonates with western consumers. Nation branding is also a means of countering country-of-origin concerns. For example, 'Malaysia Truly Asia' and 'Incredible India' are familiar brand slogans. When South Korea climbed out of its emerging nation status, it launched the 'Presidential Council on Nation Branding' and took the opportunity to showcase the country's economic development at the 1988 Seoul Olympics. It continues to spend billions and uses events to enhance the country's national image and brand.

> One of the biggest challenges many emerging markets face as they globalise is the perception that their brands are inferior.

We propose seven strategies to overcome negative country-of-origin associations:

1. Disguise the origin in choosing the brand name

The evidence from research is clear: using a foreign brand name is effective in overcoming bias against the country-of-origin of emerging markets. Nothing in the names Lenovo or ZTE suggests they come from China. Choose a brand name that triggers favourable cultural stereotypes and influences product perceptions and attitudes. Highlight that key components come from developed markets.

2. Confront negative associations

Where there is a lack of information, persistent media stereotypes, or an overexposure of negative media events and national figures, acknowledge existing perceptions and then challenge them.

3. Focus on favourable 'nuggets'

Consider whether there have been credible items within the broader product category where your country-of-origin has an advantage. As Zhou (Joe) Wang of China's Jahwa said, western perceptions of China revolve around words such as "old, low quality, low trustworthiness, and unsafe". In contrast, Shanghai is associated with "cosmopolitan, dynamic, fashionable, fresh looking and energetic". This saw Jahwa revive one of its famous nostalgic brands, renaming it 'Shanghai Vive' to capture the feeling of old Shanghai.

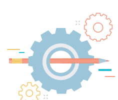
4. Offer post-sales service

Low-quality manufacturing is the biggest hurdle for emerging market brands, and extra guarantees and other types of warranties and services over and above industry norms help to reduce purchase risk. Euro NCAP, the European safety agency recently awarded China's car manufacturers Geely and SAIC four marks out of five for quality.

5. Emphasise aesthetics and invest in design

Even the most naïve consumer can readily observe and experience aesthetic qualities. Brilliance China Automotive hired Dimitri Vicedomini from the famous Italian design house Pininfarina, which designs for Ferrari, Alfa Romeo, Maserati and Peugeot (coincidentally acquired by India's Mahindra in December 2015).

6. Utilise reverse manufacturing



China Garments is a state-controlled company that went on to create a luxury menswear brand using Chinese design with European manufacturing quality. Its CEO, Zhan Yingjie, said, "We want to turn around the old thinking that we can only do processing. China has the ability to create its own luxury brand...China isn't just a global manufacturing centre and Italy a global design centre. These roles can be mixed."

7. Invest heavily in marketing

This helps to raise brand awareness and to create positive brand associations. For example, next to innovation, the second key component of Samsung's rise to global esteem was prolonged heavy spending on advertising and other marketing efforts. Thai Beverage, one of the leading beverage producers in the world, invested heavily in sports sponsorship (as did Emirates) including football teams (Real Madrid and Barcelona).

Carpe diem

In contrast to a quasi-monopoly brand that consumers buy because they lack any other option, the principles of developing a strong national brand do not differ from those followed by any other company. The national champion must seize the moment, define its target segment, develop a brand promise or position, and determine a marketing mix to fulfil the brand promise.

Brands are always a work in progress. Although hurdles remain for national champions from emerging countries before they can break free and reach their full potential, this is nothing new in the life of a global brand. Both the U.S. and Japan faced similar issues in their pre-global powerhouse days. But rather than balk at the prospect of this latest leap forward, firms need to improve their transparency, enhance the profitability and integrity of financial statements, move from imitation to innovation, accept management diversity, and strive for a global mindset. The evolving global market place is definitely no country for old men (or women).

Nirmalya Kumar
is a member of the Group Executive Council, Tata Sons, India

Jan-Benedict E.M. Steenkamp
is the Knox Massey Distinguished Professor of Marketing at Kenan-Flagler Business School, University of North Carolina, USA

The material for this article is derived from the authors' published book *Brand Breakout: How Emerging Market Brands Will Go Global.*

Reference

1 Business World, "Ajit in Conversation with Anjuli Bhargava", July 9, 2012.

SMU MASTER OF IT IN BUSINESS

Stay ahead in the world of business

FINANCIAL SERVICES TRACK

The MITB (FS) programme equips and prepares graduates and professionals to lead and shape Technology & Operations in the Financial Services industry. Courses are designed with relevance and applicability as the top priority, and are constantly reviewed to stay up-to-date with the latest trends and technologies.

ANALYTICS TRACK

The MITB (AT) programme grooms talents for Analytics job roles. Providing students with a comprehensive understanding and in-depth knowledge of business methods and management concepts necessary to assume senior Technology & Operations and analytics roles in various sectors, including healthcare, hospitality, retail, supply chain, transportation, real estate and leisure.

FINANCIAL SERVICES ANALYTICS TRACK NEW! Commencing August 2016

Technology is pushing the envelope for financial institutions in many fronts. The need to transform data into actionable insights require analytics and talents who are knowledgeable in both the business and analytics domains. The MITB (FA) program draws from both the Financial Services Track and Analytics Track to equip and prepare graduates and professionals with the ability and intelligence to translate data into actionable insights that drive growth in the financial services industry.

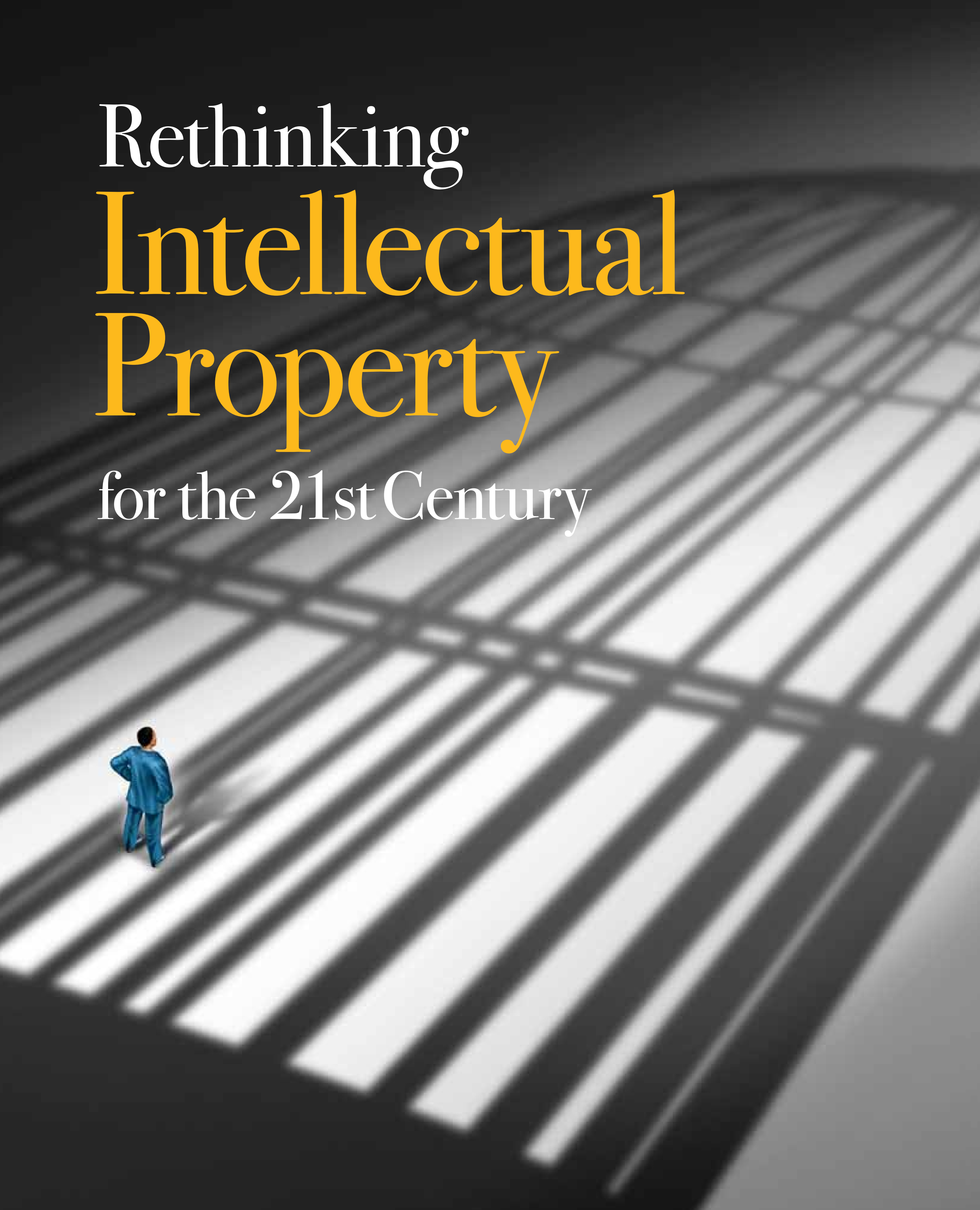
www.smu.edu.sg/mitb

mitb@smu.edu.sg

(65) 6828 0939 / (65) 6808 5108

Scan to find out more

Rethinking Intellectual Property for the 21st Century



New models are undermining the traditional views of intellectual property.

By Tim Jones

We are facing a potential point of inflection for intellectual property (IP). With the rise of technologies such as 3D printing, the expansion of multiple authorships and an increasing democratisation of information, many see the systems designed in the 19th century, and refined in the 20th century, as not fit for purpose in the 21st century. Whether we should disregard IP, or reinvent it for the more collaborative world ahead, is open to question. What is becoming increasingly apparent is the need to change our perspectives on know-how, its sharing and trading, and consider how IP can support this.

Traditional intellectual property regimes are often seen as an inhibitor to innovation, protecting incumbent business models where the firm's value is measured in terms of profit and loss. The emphasis is on creating shareholder value, and not necessarily on contribution to society. The accounting of such a system relies on tangible assets, and thus, the intangible aspects around innovation and brand value are accounted for as IP assets. This approach is defensive: perhaps a more holistic, open and collaborative attitude towards intellectual property is needed to embrace disruption.

Perfect digital copies and peer-to-peer (P2P) file sharing started disrupting the media industry nearly two decades ago, beginning with Napster in 1999. The record labels never recovered and new business models have since emerged and continue to evolve. Industries today face greater disruption as more goods and services become digitised. An inherent characteristic of digital products is that whether there are five consumers, or five billion, the marginal cost for each additional person consuming it approaches zero. Moreover, the foundational technologies and protocols that make the Internet work also make these products, in all practical terms, non-excludable. In a competitive market, this means that digital goods and services are abundant, available and free. Where then, is the incentive to innovate and create new products that can have intrinsic value? And, if we are to believe that innovation arises through collaboration, is the current regime then too restrictive?

Traditional intellectual property regimes are often seen as an inhibitor of innovation, protecting incumbent business models where the firm's value is measured in terms of profit and loss. The emphasis is on creating shareholder value, and not necessarily on contribution to society.

The problem is that the barriers exist in legal terms and only manifest under the threat of coercion. This can be expensive, and since litigation takes place through public courts, a substantial burden of these costs is often passed on to the public. In addition, those with deeper pockets are better positioned to take action and are thus more likely to profit from settlement. As more products and services become digitised, governments and firms may find it increasingly expensive to chase down offenders. Clearly something is wrong when more time and money is spent on litigation than on R&D. This is increasingly the case in multiple sectors as strict intellectual property regimes not only increase the costs for new players to enter the market, but also open the door for copyright and patent trolls who aggressively pursue litigation as a means to make money.

We need to sort this out but the answer should not be to impose even more restrictions. IP should not be implemented as a market barrier, but rather a means to incentivise and promote progress through new knowledge and invention, in short, innovation. There is intrinsic social value in the sharing of insight and know-how. The best policy would be to make the most of this, but in a way that maybe allows for new robust business models to flourish in the digital age.

Lessons from the past and present

COPYRIGHT AND DESIGN RIGHTS

The more freely and openly information is shared, the more value society can create through collaboration and innovation. By restricting access, we impede progress. Indeed, the origins of copyright date back to the emergence of the printing press. The printed word spread information cheaply amongst the masses. Governments and the church reacted by restricting the right to print in order to contain infectious ideas, which threatened to upend traditional power structures. The ensuing freedom of thought at the end of the 15th century brought Europe the Protestant Reformation and the Enlightenment, which swept away the medieval world-view and ushered in modernity. Some 500 years later we potentially find ourselves in a similar revolutionary time.

Modern copyrights have evolved to be more about balancing the rights of creators and the rights of the public. Nonetheless, such restrictive rights inevitably protect the incumbent. This is perhaps now changing. Today we can see some evidence of organisations ignoring copyright, and the courts supporting them in this. The recent case of Magmatic, the maker of the Trunki children's ride-on suitcase, is a case in point.[1] The U.K. Supreme Court unanimously dismissed an appeal and allowed a ruling that PMS International, the copycat, did not infringe copyright even though the judge acknowledged that PMS conceived the idea of making their version after seeing the original. The implications of this are significant, and could effectively end the protection of designers from design rights and copyrights in their current form.

PATENTS

Back in the 1920s, auto-manufacturers were still quite new to the game. In order to speed advancements within their industry (and avoid reinventing the wheel), Ford, Chrysler and GM, amongst others, put their collective knowledge into patent pools. The same was done with sewing machine makers in the 1850s. And in World War I, aircraft development in the U.S. was severely stunted by the two largest patent holders, the Wright Company and Curtis Company, which ended in 1917 when the U.S. government pressured the industry to form an open patent pool. These collaborative mechanisms accelerated the development of multiple game-changing technologies.

In another example, Ericsson, the Swedish communications technology company and creator of Bluetooth technology, released its Bluetooth related patents into an open depository that anyone could access via a special interest group. In doing so, Ericsson relinquished any rights to royalties, but in the process, also established a standard.

Similar to Ericsson, the electric car company Tesla Motors has made all its patents publicly available for use. According to Elon Musk, CEO of Tesla, "When I started out with my first company, Zip2, I thought patents were a good thing and worked hard to obtain them. And maybe they were good long ago, but too often these days they serve merely to stifle progress, entrench the positions of giant corporations and enrich those in the legal profession, rather than the actual inventors. After Zip2, when I realized that receiving a patent really just meant that you bought a lottery ticket to a lawsuit, I avoided them whenever possible."[2]

Lawsuits aside, there is a shrewd business strategy behind Tesla's patent policy. Policies like these help to create ecosystems, which have made products and services such as the Internet and numerous other information-communications technologies possible.

New business models

As access to the Internet becomes ubiquitous, digital goods and services

As access to the Internet becomes ubiquitous, digital goods and services will increasingly resemble global public goods, which are non-rival and non-excludable. This potentially could result in a market failure, where profit-seeking behaviour is incapable of satisfying demand.

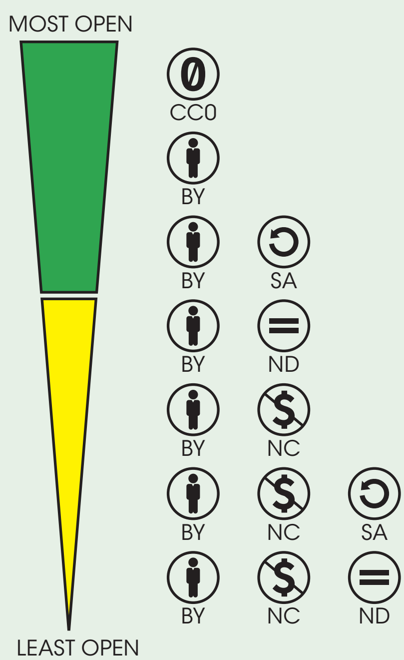
will increasingly resemble global public goods, which are non-rival and non-excludable. This could result in a market failure, where profit-seeking behaviour is incapable of satisfying demand. Original creators are not incentivised to produce because the positive externalities of the goods are not remunerated as innovation, and progress in this domain arises through collaboration and open access. The IP law that protects proprietary knowledge through restricted access and use may therefore be inefficient. Thankfully, there are alternative regimes that attempt to reconcile social benefit and individual compensation, Creative Commons and copyleft licencing being prime examples.

Creating and sharing music, stories and art is innate to human beings. To think that new creative content would not be produced because there is no monetary payoff is, according to some, misguided. Jeremy Rifkin writes in his 2014 *Huffington Post* article, “The end of the capitalist era, and what comes next”, that “today, more than 40 percent of the human race is producing its own music, videos, news, and knowledge on relatively cheap cell phones and computers, and sharing it at near zero marginal cost in a collaborative networked world.”[3]

Although marginal costs are zero, fixed costs and overhead are not. It takes a lot of time and effort to produce high quality content. People who create value through digital works still have material needs. How then, can they trade their digital work for food or to keep the lights on?

As one option gaining popularity over recent years, Creative Commons licencing provides an avenue for creators to monetise their work, either directly or indirectly, through copyright recognition and the option to control the commercialisation of their work while providing a framework for free distribution and space for open collaboration (refer to Figure 1).

CREATIVE COMMONS



ICON	Description	Acronym	Free/Libre
PUBLIC DOMAIN	Freeing content globally without restrictions	CC0	YES
BY	Attribution alone	BY	YES
BY SA	Attribution + ShareAlike	BY-SA	YES
BY NC	Attribution + Noncommercial	BY-NC	NO
BY ND	Attribution + NoDerivatives	BY-ND	NO
BY NC SA	Attribution + Noncommercial + ShareAlike	BY-NC-SA	NO
BY NC ND	Attribution + Noncommercial + NoDerivatives	BY-NC-ND	NO

FIGURE 1

Source: Creative Commons Attribution 4.0 International license

For instance, work can be commissioned through crowdsourcing or commercialised through freemium models that have an added-value physical component, such as live concerts, movie theatre experiences, speaking engagements, workshops, merchandise and prints which are sold at a premium above the basic free content. A good example of this is the heavy metal band, Iron Maiden, that used BitTorrent analytics to plot a successful concert tour around the cities where their music was most downloaded from P2P networks.

Success today in music is also about broadening access. As a streaming service, Spotify's value proposition is built around easy and convenient access to essentially unlimited genres and quantities of music. Artists benefit by the sheer volume going through Spotify, and the exposure they get, as well as opportunities to be discovered through discussion forums, playlists and recommendations from the user community. While Spotify is nowhere near as lucrative as the record labels once were, it does provide a mechanism for artists to reach a large audience. Spotify gives them not only scale, but also provides access to niche pockets. People use Spotify for convenience, access, and the community. Traditional record labels rely on mass consumption and hence communication through radio and television. Spotify and its peers provide a way to democratise music, getting content out there and reaching the audience, while still getting paid for it. And something like a Creative Commons license prevents Spotify from becoming too dominant in the distribution process. Artists' music need not be exclusive but can be available on P2P networks or competing streaming networks.

YouTube, Spotify and other similar services bring in revenues from advertisements, subscriptions, or some combination of both. Artists are paid based on the number of listeners/viewers they attract. Five years ago, the *New York Times*, in response to digital disruption, experimented with their contributors' pay structure. They asked their writers if they would rather be paid by number of words or number of views. Many chose views, but of course it changes the type of things they were incentivised to write about.

MIT gives a considerable amount of their content and services away for free through Massive Online Open Courses, as well as a plethora of other online resources. What MIT saw, ahead of the curve, was that the value was not in the content or the lecture, but in the discussion and interaction around the content, which enhances the university's brand, reputation and thought leadership. MIT is not alone in this endeavour; this has become common practice for hundreds of universities around the world.

All these examples show that change is in the air. They may be mutually exclusive but collectively they show a potential future direction. The core point is, intellectual property is important as it provides authors and inventors with essential recognition and sets the rules of the game. The Creative Commons approach does this by creating a legal framework between the extremes of traditional copyrights and the public domain.

Collaborations among users, government and private enterprise

Creative Commons licencing certainly offers a solution for more traditional forms of authorship, such as music, images and literature–but what about work that is constantly evolving with multiple authors, such as software? This may, it has been argued, require a more liberal 'copyleft' solution.

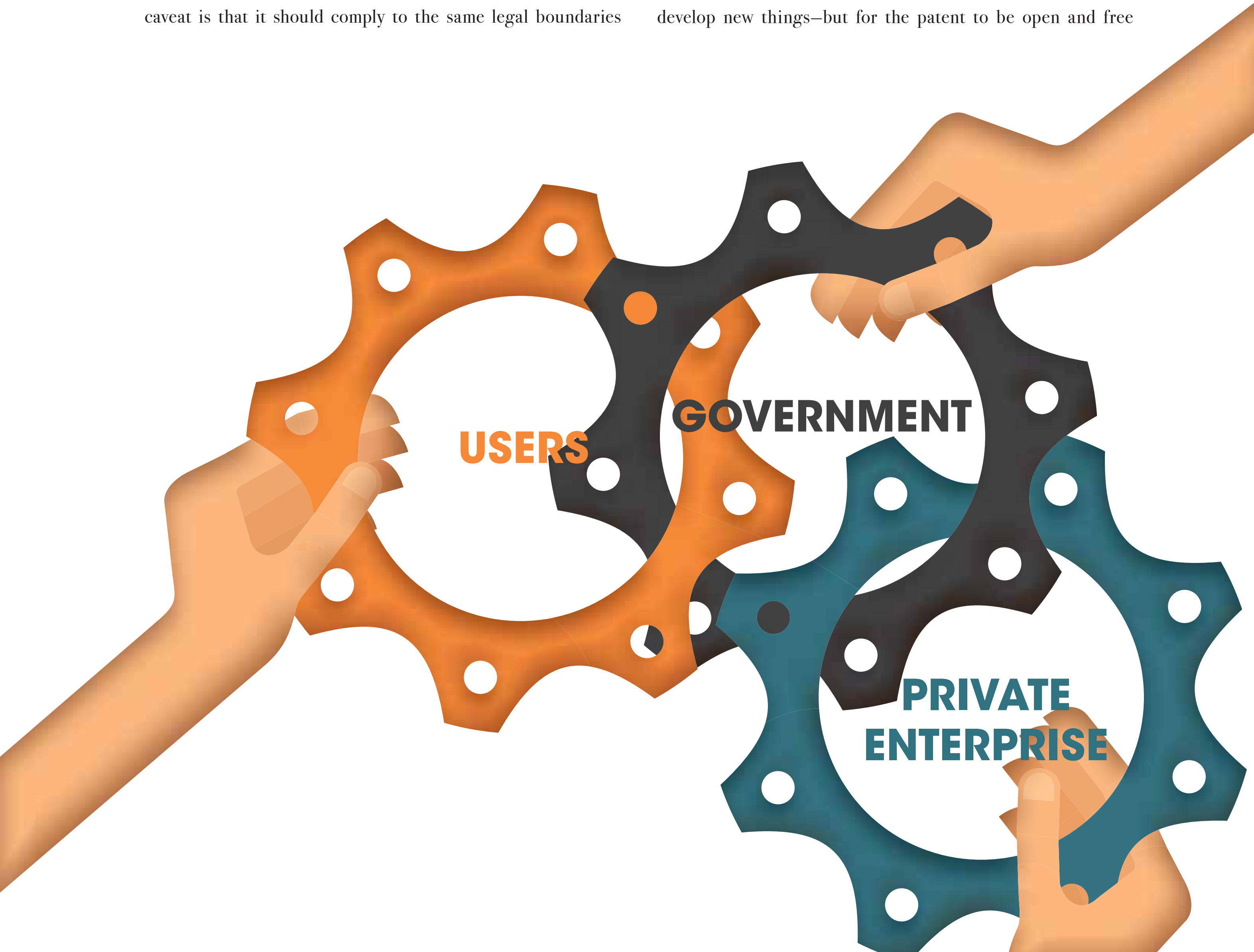
Copyleft licenses are a form of copyright that grew out of the Free Software Movement (FSM), which was born out of the initial 1970s hacker culture. A major component of this was the rejection of proprietary software. This culminated in the GNU Project in 1983, led by the pioneering work of Richard Stallman, founder of FSM and the GNU Public License. The GNU Project sought to develop an alternative operating system (OS) to Unix, the leading proprietary OS at the time.

Another example is the Free Software license that gives users the freedom to run, copy, distribute, study, change and improve the software–and even sell it–regardless of how they obtained the software to begin with.[4] An important clarification here is that free does not mean free of price, but rather, freedom of use. Commercialising free software is fair game, the only caveat is that it should comply to the same legal boundaries and that modified versions are identifiable and distinct from other versions (e.g. changing the version name or logo), which allows for trademarks, for example, to be protected.

This form of licencing has been hugely successful. It established a framework for open collaboration and iterative improvement. Indeed, the architecture of the Internet itself is built on free and open source technologies. The most common type of operating system used for web servers, Linux, originated from the GNU Project.

But would a regime such as this work for something like the pharmaceutical industry? Perhaps, but not yet. Food and drug regulation aside, the main difference between software R&D and pharmaceutical R&D is money. It's cheaper to develop software than it is to develop drugs. This may change over time though, as technological advancement may bring down even drug development costs.

In the future, it may be more efficient to compensate pharmaceutical firms on completing a task to discover and develop new things–but for the patent to be open and free



to use. In this way, pharmaceuticals could compete on public grants or contracts. Some pharmaceutical companies, like Pfizer and GSK, are already starting to put selected patents on drugs that did not make it through clinical trials into a public depository or giving them to academia. Looking further ahead at the escalating costs of healthcare generally, and drug development specifically, some see a world where drug discovery could become an increasingly state-led and state-funded activity with the associated intellectual property made available to all.

Besides being able to incentivise invention and innovation, patents also protect the public by assigning liability. For example, companies can get sued for developing dangerous products. While investment in new product development has its return, it is not without liability. Counterfeiters, however, escape this liability; they are often hard to find and operate outside of a legal jurisdiction. Legal and ethical restrictions clearly do not bother them, and so alternative models must be explored to protect customers and society more broadly. Counterfeiters must be disincentivised economically.

Liabilities and ethics

Tim O'Reilly, populariser of the terms 'open-source' and 'web 2.0', offers an interesting and controversial statement on the point of piracy, that is, "piracy is progressive taxation". The statement draws our attention to those who benefit from intellectual property laws, and by how much. When intellectual property creates barriers, it is those who control the distribution channel that profit—often disproportionally more than the author or creator of the work.

However, perfect digital copies along with replication and distribution at zero marginal cost through P2P networks disintegrates any centralised control of the channel. For instance, as technology matures, 3D printing will drastically reduce the barriers to production. Anything that can be 3D printed will essentially become digital, and so potentially can be shared in the same way as music. Royalties on a digital file are increasingly unlikely, despite the attempts of many in the industry to enforce digital rights.

The new enlightenment

Reconciling twentieth century capitalism with twenty-first century technology will become increasingly difficult. Emerging technologies like the Internet of Things, Big Data, 3D printing, genetic engineering, Artificial Intelligence and robotics will allow digitisation, perfect copying and manipulation of almost anything. The distinction between patent and copyright will blur, as will the difference between public and private goods. Many people still have a pre-Internet mindset when it comes to thinking about IP, and might be resistant to reimagining intellectual property for the new economy—whose features include rapid change, hyper-competition and information sharing. Most importantly, it is the transition from ownership to access.

Erecting barriers to protect us from change would be a step backwards, and could have repercussions that hinder progress. It is increasingly believed that IP regimes designed to support old-school profit and loss statements are currently based on an incomplete model of our socio-economic system. As a shift forward, many see that Integrated Reporting, which accounts for a firm's financial, social and environmental impact, goes some way to address this. The Five Capitals model, which supports environmental boundaries,

Many people still have a pre-Internet mindset when it comes to thinking about intellectual property, and might be resistant to reimagining IP for the new economy—whose features include rapid change, hyper-competition and information. Most importantly, it is the transition from ownership to access.

THE FIVE CAPITALS MODEL

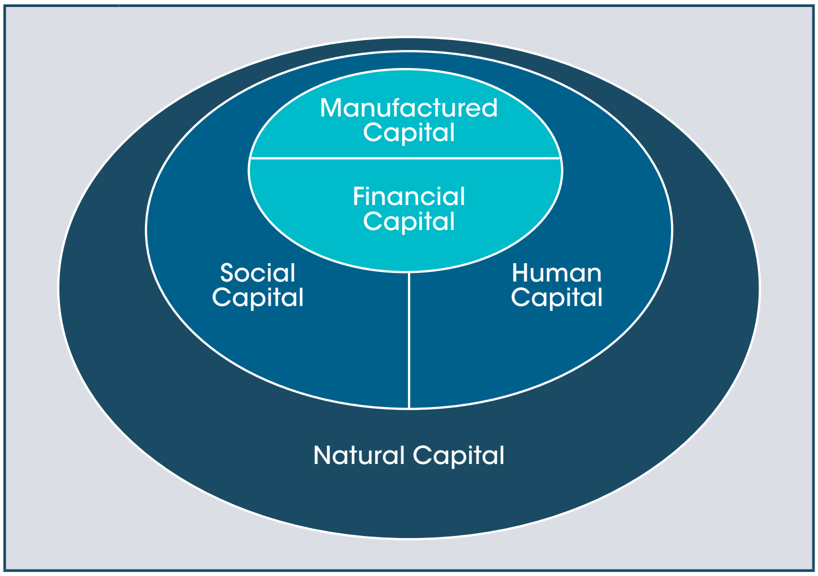


FIGURE 2 *Source: Forum for the Future, "The Five Capitals"*

social conditions and characteristics of the economy, is an even more complete approach (refer to Figure 2). A holistic legal construct would thus be able to account for the multidimensional value of intellectual property beyond the short-sighted ambitions of profit.

As with any significant change, the journey is complex and the ride is often bumpy. New models are undermining the traditional views of IP in some sectors and testing the boundaries of traditional models. Whether by 2030, 2050 or later, what we can be confident about is that significant change will come within the 21st century–not just around technology but also on how value is created–and with it a different view of IP will emerge. This will be less focused on protection and defence against imitation, and will instead support wider and more democratic sharing, greater collaboration and new business models focused on value creation defined in a much broader sense. While some may fear this change, others will embrace it and many will see that it will both enable and reflect a positive shift for the role of the firm in an ever more connected and global society.

Tim Jones, PhD.
is Programme Director of the Future Agenda global open foresight programme. He is also a founder of the Growth Agenda network and leads the Innovation Leaders research project

References

1 Lauren Davidson, "Suitcase maker Trunki loses Supreme Court battle against copycat brand", The Telegraph, March 9, 2016.
2 Elon Musk, Tesla Motors, Blog, "All Our Patent Are Belong to You", June 12, 2014.
3 Jeremy Rifkin, "The End of the Capitalist Era, and What Comes Next", Huffington Post, June 1, 2014.
4 GNU Operating System, "What is Free Software".

The New Dragon Dance

China's evolving growth model

Is China moving to a new normal?

By Sarita Mathur

In recent years, there have been concerns about the slowing down of the Chinese economy. One question frequently asked by economists, analysts and business leaders is whether or not China is bracing itself for a hard landing. Or is the dragon settling into a new normal after nearly four decades of exponential growth?

The engine sputters

At the end of the Marxist era, economic reform and trade liberalisation initiated by Deng Xiaoping in 1978 gave the Chinese economy the impetus for growth and laid the seeds for a strong export-led manufacturing base. Combined with low-cost labour and heavy investment in infrastructure and basic industry, the economy rapidly gained momentum on the strength of a low-cost, low-tech manufacturing sector. Between 1980 and 2000, the country averaged an annual growth rate of 9.8 percent.[1]

With China's subsequent accession to the World Trade Organization in 2001, exports further propelled growth in manufacturing, bestowing upon the country the status of 'factory of the world'. GDP growth too picked up, averaging 9.9 percent between 1995 and 2011, and peaking at 14.2 percent in 2007, just prior to the subprime crisis (refer to Figure 1).

In fact, the growth in manufacturing was nothing short of spectacular. While in 1980, China was the seventh largest manufacturing nation, by 2011, it had overtaken the U.S. to become the world's leading manufacturer. Today, China accounts for a quarter of the world's manufacturing output. Together, with strictly enforced one-child and *hukou* policies, China emerged as a nation with a hardworking, yet unskilled or semi-skilled, workforce.

CHINA'S GDP GROWTH: 1995 TO 2014

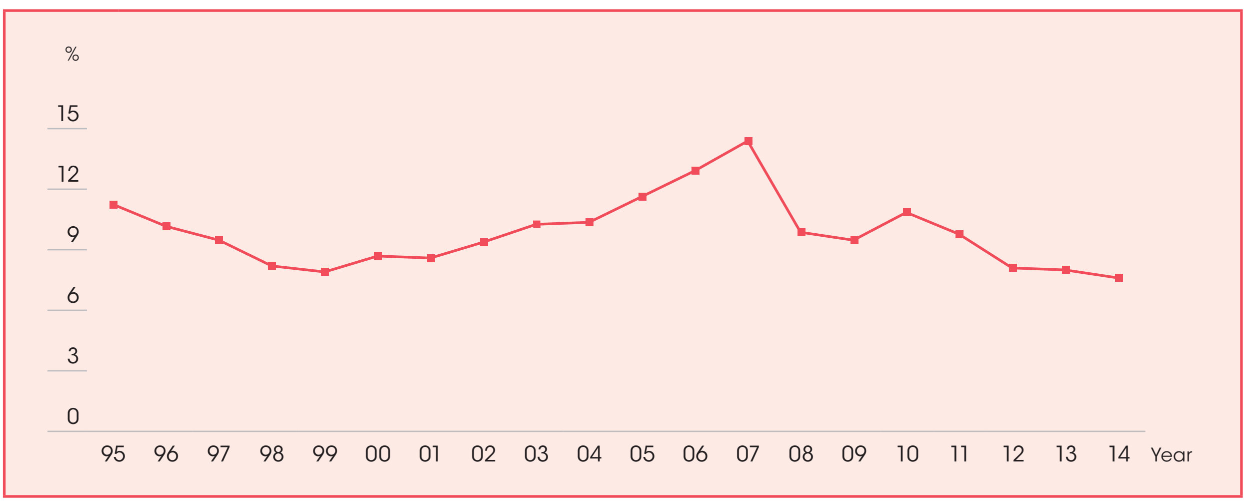


FIGURE 1

Source: The World Bank

However, China's investment-led, labour-intensive, manufacturing-focused growth has recently shown signs of weakening. Since 2012, the growth rates have been hovering around 7 percent, and analysts forecast further declines in the next five years.

Growth rates by themselves are not so much a cause for alarm–with an economy the size of US$11 trillion, even conservative growth estimates of six to six and a half percent mean that China will leave its impression on the global economy. However, other factors such as rising labour costs, declining productivity (albeit still higher than say, India), overcapacity in manufacturing, obsolete technology and environmental issues are signs that need to be understood in the light of the evolving growth model. As the world's own consciousness grows, China has to work hard to shrug off the image of being the world's sweatshop–manufacturing low-quality goods or knock-offs with little heed to intellectual property (IP), labour laws and the environment.

Shifting gears

China today is a nation of two economies, the old and the new. As it transitions, the old socio-economic structures and policies that supported the growth model over the past 30 years will need revisiting. New trends are emerging that point to a rebalancing of the economy in favour of an innovative, high-end manufacturing and service-oriented economy, one that leverages skilled labour and technology with an eye to sustainable development.

For the new paradigm to be realised, policy makers will have to make an honest assessment of where the nation is faltering, take some bold initiatives to improve the legal and regulatory structures, as well as focus on upgrading industry to allow for a freer flow of labour within the country. China's geopolitical positioning is yet another consideration as global business becomes even more integrated through technology, and the new growth model will force China to rethink its trade partnerships.

Although many steps have already been taken in this direction, the question is whether or not China will be successful in creating a new growth engine and a cleaner global image, and if so, how will it arrive at a new normal?

Demographic dividend–from 'quantity' to 'quality'

China's economic boom relied on an abundant, cheap, unskilled, yet productive labour force, and a low dependency ratio resulting from a young population. High fertility rates in the 1960s and 1970s provided a vast pool of labour well through to the 21st century, with the impact of the one-child policy felt only recently.

> China has to work hard to shrug off the image of being the world's sweatshop—manufacturing low-quality goods or knock-offs with little heed to intellectual property, labour laws and the environment.

In 1978, wages in China were three percent of those in the United States.[2] However, wages have been rising steadily in recent years, eroding company profit margins and resulting in Chinese manufacturers losing out to countries offering cheaper labour, such as Vietnam and Indonesia. Today, the average factory worker in China earns US$27.50 per day, compared to US$8.60 in Indonesia and US$6.70 in Vietnam.[3]

Meanwhile foreign investors are voting with their feet. In 2001, Chinese factories produced 40 percent of Nike's shoes while Vietnam only produced 13 percent. By 2013, China's share had dropped to 30 percent with Vietnam winning the contracts and raising its share of Nike's production to 42 percent.[4]

A Boston Consulting Group survey revealed that, in 2012, 37 percent of U.S.-based manufacturing companies with annual sales greater than US$1 billion were, "...planning or actively considering moving their production facilities from China to America."[5] In 2015, Nokia production lines were shut down in Dongguan and moved to Vietnam, with 9,000 workers retrenched. Japanese electronics majors such as Panasonic, Sharp and TDK are also moving their factories back to Japan; while clothing retailers Gap and H&M have decided to take their business to Myanmar; and Uniqlo and Samsung are actively looking at India and ASEAN to expand their operations.

But while the supply of unskilled labour is diminishing, leading to a loss in competitive advantage in the traditional manufacturing sectors, China today has a rapidly expanding educated and skilled workforce that is capable and keen to work. Between 2000 and 2015, the number of college graduates rose from one million to seven million and China currently leads the world in its annual cohort of science and engineering PhDs–30,000 in 2015 (refer to Figure 2).[6] And more Chinese students are going abroad to get their first degree.

China's new demographic dividend is based on quality, not quantity. And industry is reinforcing this trend. As the nation weans itself from the reliance on traditional manufacturing, new jobs

POPULATION, LABOUR FORCE AND COLLEGE GRADUATES

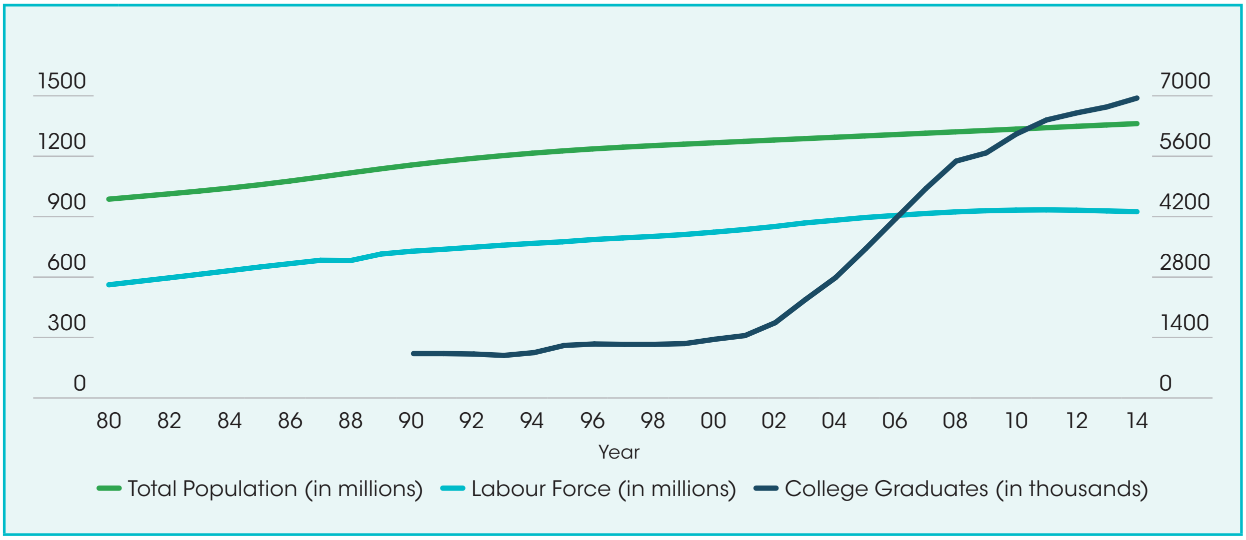


FIGURE 2

Source: Standard Chartered Bank

will be created, complementing high-tech industries. The rapidly expanding services sector is poised to become the main driver of economic growth and employment in the near future, and it will need a well-educated, globally-aware, management-savvy workforce. Sub-sectors such as transportation and logistics, and wholesale and retail trade are already leading the way.

Labour mobility is a key factor in developing an efficient and motivated labour force, and China's current *hukou* system needs to be revisited to facilitate freer movement of workers and faster urbanisation. The social benefits of the *hukou* presently do not extend to migrants, and this has strongly disincentivised rural-urban migration. With the exception of major cities like Beijing, Shanghai, Guangzhou and Shenzhen, the next tier of cities is unable to provide opportunities for the new crop of graduates. Seamless movement of labour would thus be an important step in facilitating the establishment of the new growth model.

From 'innovation sponge' to 'global innovation leader'

China today invests US$200 billion annually in R&D, more than any other nation in the world.[7] A total of 4,854 million new start-ups were registered between March 2014 and May 2015, averaging seven companies per minute![8] Half of these were technology companies. Understandably, not all will turn into multi-million dollar businesses and it is a fact that most will perish within the first 12 months. However, the trend is clear: the Chinese are no longer waiting to mimic western businesses, but are becoming entrepreneurial themselves, and developing new technologies and business models to forge ahead as innovation leaders.

Silicon Valley may be better at technical innovation, but Chinese companies have certainly learnt to innovate on the factory floor. The 'innovation sponge' has undoubtedly created several global leaders like Alibaba, Baidu and Tencent. While these companies may have taken their business ideas and innovations from the West, they have however judiciously adapted their business models to fit their customers' needs, as Alibaba did when it promised 24-hour deliveries to its customers in any part of China. Many of these companies have also proven to be more successful than their western counterparts.

China today invests US$200 billion annually in R&D, more than any other nation in the world. A total of 4,854 million new start-ups were registered between March 2014 and May 2015, averaging seven companies per minute.

The strength of Chinese companies is further evidenced by the fact that now, more and more venture capital exits are via mergers and acquisitions, while ten years ago, the only way to cash out from an investment in a Chinese start-up was to wait for it to go public on an international stock exchange.

Although IP fraud continues to be a concern for MNCs operating in China, Chinese companies are becoming much more IP conscious because their own innovations are at stake. A total of 820,000 patent applications were filed in 2013.[9] And if the industry itself has become more conscientious, then regulations can't be far behind.

From 'Made *in* China' to 'Made *by* China'

In the 1980s and 1990s, most factories set up in China were owned by firms from Taiwan or western countries. But now, China is looking to design its own products rather than manufacturing for someone else.[10] Kirk Yang of Barclay's bank articulates this new trend as moving from 'Made in China' to 'Made by China'.[11]

To secure this significant move, China has to tap into new sources of growth that will help the nation move up the global value chain. In May 2015, premier Li Keqiang unveiled 'Made in China 2025', a ten-year national plan to transform China from a manufacturing giant to an innovative global manufacturing power. The plan, inspired by Germany's 2011 'Industry 4.0' initiative but much broader in scope, aims for a comprehensive upgrade in the quality, productivity and digitisation of Chinese manufacturing. It also calls for a strengthening of IP protection and building a strong national image and national brand recognition. Early signs are already visible. According to a report by the Asian Development Bank, between 2000 and 2014, China's share in Asia's exports of high-tech products exceeded that of Japan–while China's share rose from 9.4 percent to 25.5 percent, Japan's cascaded down from 25.5 percent to 7.7 percent (refer to Figure 3).[12]

So what does this mean for MNCs operating in China? In some ways, if the goals of the plan are achieved, China will come in direct competition with advanced manufacturing nations like the U.S., Germany and Japan. And given the growing interdependence of global production and consumption, all economies will likely benefit from the ability to collaborate digitally with Chinese manufacturers. It will also lead to greater business transparency and high-quality production at lower costs.

From 'supply-led' to 'demand-led' growth

A key challenge in China today is excess capacity, an outcome of its long-standing investment-led growth model. This took a particularly ominous stance after the 2008 global financial crisis, when the government doled out a ¥4 trillion (US$586 billion) economic stimulus plan, which saw its way primarily into fixed assets and construction. Combined with flagging international

SHARE IN ASIA'S HIGH-TECH EXPORTS: 2000 TO 2014

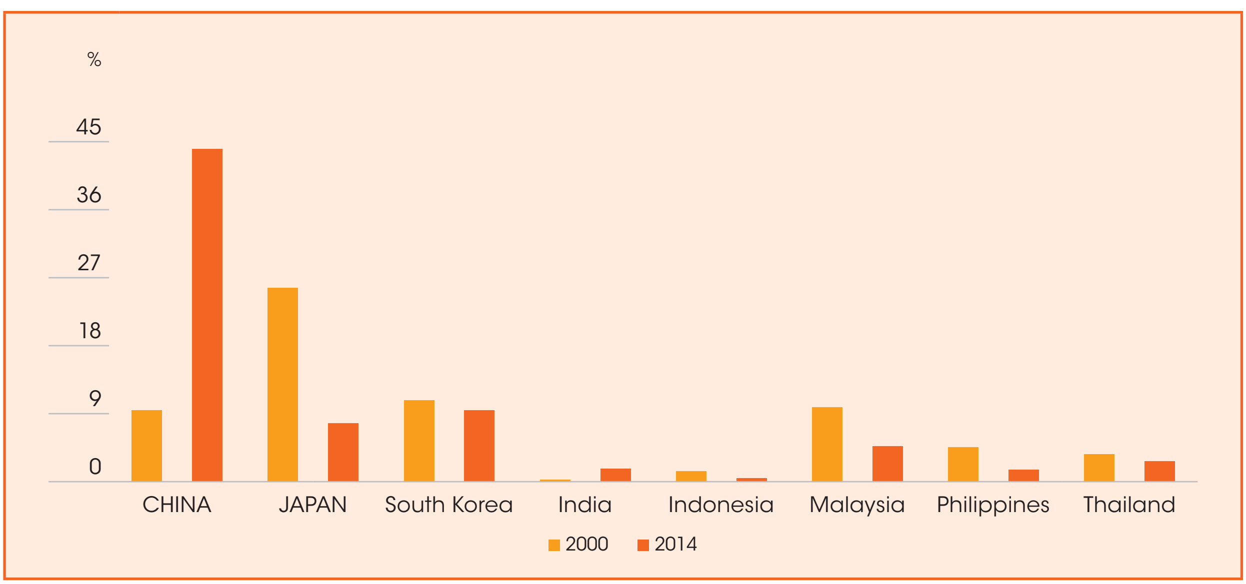


FIGURE 3

Source: Bloomberg Business

demand for exports and falling domestic demand for real estate, average capacity utilisation nosedived from 80 percent pre-crisis to 60 percent in 2011.[13] The steel industry has been particularly badly hit, causing factories to shut down and retrench workers.

Policy makers must balance cutting capacity while maintaining growth. The solution lies in boosting demand, and taking a leaf from lessons learnt from western companies that have often faced disappointments in their attempts to 'go global', Chinese companies have prudently invested their time and resources in first understanding and catering to its increasingly affluent domestic market.

Chinese tech entrepreneurs, in particular, need not look beyond the border to achieve scale and grow their businesses. By June 2015, China's Internet penetration had reached 48.8 percent, with 668 million users. Mobile netizens accounted for almost 89 percent of the total netizen population, with 28 percent of Chinese Internet users located in rural areas. Mobile payments, mobile shopping and mobile travel bookings have witnessed phenomenal volume growth in the last year or so (refer to Figure 4).[14]

Consumer-oriented Internet growth has already created a thriving e-commerce industry in China. Alibaba's revenues from Singles Day, for example, touched US$14.3 billion in 2015, compared to US$6 billion the year before.[15] With a total e-commerce spend of US$672 billion, online sales accounted for almost 16 percent of retail sales in China, compared to the U.S., which spent US$347.3 billion, accounting for just 7 percent of its total retail sales in 2015.

Companies are leveraging web technologies for more than just selling their wares. Xiaomi, the low-cost smartphone manufacturer, is relying on crowdsourcing to gain customer feedback, which in turn is fed into the company's product development. Similarly, car manufacturers are leveraging web-based collaborative tools to cut costs, reduce design times and mitigate political risks.

Reinvigorating the Silk Road

However, despite its robust home market, Chinese companies cannot afford to turn their attention away from the opportunities of international trade and foreign investment. Together with manufacturing, trade has been a key pillar of China's growth. In 2014, exports accounted for 22.6 percent of GDP while imports accounted for 18.9 percent of GDP.[16] Over the years, China has negotiated bilateral trading positions with many nations, including Chile, Pakistan, New Zealand, Singapore, Peru, Costa Rica, Iceland, Switzerland, South Korea and Australia. In addition, codes of trading have been established between China and ASEAN member nations, and China is also showing active interest in the negotiation of the Regional Comprehensive Economic Partnership (RCEP) within the ASEAN+6 framework, which includes ASEAN, Australia,

MOBILE GROWTH IN CHINA (JAN-JUN 2015)

Note: Numbers refer to transaction volumes

FIGURE 4

Source: China Internet Network Information Center

China, India, Japan, New Zealand and South Korea.[17]

With the growing number of trading blocs the world over, China is looking to reinvigorate the original Silk Road by developing multilateral relationships that go beyond trade in goods and services. Chinese foreign policy initiatives, such as the Asian Infrastructure Investment Bank (AIIB), the BRICS bank and the One Belt, One Road (OBOR) plan, support private investment projects outside China. Involving over 60 nations, OBOR is geographically the most expansive, stretching along the historical Silk Route from China to Central Asia on the one hand, and a maritime road via Southeast Asia into South Asia, Africa and Europe on the other. The grouping represents countries which together account for a third of the world's total economy and more than half the global population.

Some opine that the AIIB and OBOR initiatives are a response to the Trans-Pacific Partnership (TPP), a trade agreement among 12 Pacific Rim countries spearheaded by the U.S., and that China is following an aggressive policy of forging bilateral and regional trade agreements to counter the trade impact of the TPP. The reasons though are probably both economic and geopolitical, the two being intrinsically related. China certainly has a lot to gain from joining the TPP in terms of tariff reduction and preferential market access–yet, so far, it has shown no inclination to join the TPP.

Will China lose out by not joining the TPP? The answer depends on the time horizon under consideration. In the immediate to short term, China has consciously chosen not to join the TPP as it will find it difficult to comply with some of rules of the treaty. Chief among these are those related to human rights, the environment, IP protection and regulatory and legal frameworks. For instance, the investor-state dispute settlement (ISDS) clause of the TPP gives foreign companies the right to international arbitration and opportunity of a fair trial in the event of a dispute with a local government. Currently, the corporate laws in China make it difficult to accept these terms. However, over the longer time period, we may find China taking conscious steps towards strengthening its regulatory and governance systems.

David Dollar of the Brookings Institution argues that initiatives such as OBOR and the TPP are complementary, not substitutable, "The kind of infrastructure financed by the Chinese initiatives [like AIIB and OBOR] is the "hardware" of trade and investment, necessary but not sufficient to deepen integration. TPP, on the other hand, represents the "software" of integration, reducing trade barriers, opening up services for trade and investment, and harmonizing various regulatory barriers to trade."[18]

Settling into a new normal: from 'growth' to 'development'

A new development model is now emerging in China that focuses more on the quality of growth, taking into account the nation's changing demographics,

> China's industry is gravitating toward skill-based, technology-intensive, high-end manufacturing that is socially conscious and globally integrated.

technological progress, social and environmental consciousness, and geopolitical trade relationships. China's industry is gravitating towards skill-based, technology-intensive, high-end manufacturing that is socially conscious and globally integrated. Stakeholders should not only watch this space but be prepared to seize the opportunities within.

China's traditional manufacturers need to adapt their products and processes to leverage the new skills and technologies that have become available. This will help them make better use of available resources, improve factor productivity, and move their product offerings higher up the value chain. Innovation is the new, most valuable factor of production today. China's entrepreneurs are blazing new trails not only in tech innovation but also in breakthrough business models, where they are showing the world better ways of making and selling.

The aging yet better-educated workforce will look for opportunities that are concomitant with their skills and qualifications in China and abroad, as well as add to the global consumer base that has deep pockets and demands quality and service. MNCs investing and operating in China can also benefit from this trend if they acquiesce to the economic laws of comparative advantage and see the country's industrial upgrade as an opportunity to collaborate rather than a threat to their national industries.

Regional trading blocs seem to be creating borders around otherwise borderless markets. Rather than see them as antagonistic, China should use its strong trading position to build upon its existing bilateral and multilateral trade relationships such that all participating nations are able to gain from the benefits of free trade and the seamless movement of labour and capital.

And finally, policy makers must acknowledge that the new order can survive only if it is backed by a strong legal and regulatory architecture that supports the development track.

A lot is at stake. The world is watching with trepidation, as the dragon is poised for its new dance.

Sarita Mathur

is the Deputy Editor of Asian Management Insights and a senior case writer at the Centre for Management Practice, Singapore Management University

References

1 The World Bank, "GDP growth (annual %)".

2 "China's demographic dividend–Shift to quality", Global Research, Standard Chartered Bank, January 22, 2016.

3 "The future of Factory Asia: A tightening grip", The Economist, March 14, 2015.

4 Emmanuelle Ganne, "Could Vietnam become both the world's next factory and business frontier?", www.tradeready.ca., November 5, 2015.

5 Brad Plumer, "Is U.S. manufacturing making a comeback–or is it just hype?", The Washington Post, May 1, 2013.

6 "Gauging the Strength of Chinese Innovation", McKinsey Global Institute, October 22, 2015.

7 Ibid.

8 Zhang Lulu, "China's startup boom: 7 new firms every minute", China.org.cn, June 9, 2015.

9 "Gauging the Strength of Chinese Innovation", McKinsey Global Institute, October 22, 2015.

10 David Wertime, "It's Official: China Is Becoming a New Innovation Powerhouse", FP, foreignpolicy.com, February 7, 2014.

11 "Still Made in China: Chinese Manufacturing Remains Second to None", The Economist, September 12, 2015.

12 Karl Lester M Yap, "China Surpasses Japan as Asia's Top High-tech Exporter, ADB Says", Bloomberg Business, December 8, 2015.

13 Mamta Badkar, "China Stimulated Its Economy Like Crazy After The Financial Crisis...And Now The Nightmare Is Beginning", Business Insider, June 17, 2013.

14 China Internet Network Information Center, "The 36th Statistical Report on Internet Development in China", July 2015.

15 Steven Millward, "China's ecommerce spending to blast past $1 trillion in 2017", techinasia.com, November 2, 2015.

16 The World Bank, "Exports of goods and services (% of GDP)", and "Imports of goods and services (% of GDP)".

17 Peter K Yu, "How China's exclusion from the TPP could hurt its economic growth", Fortune, October 19, 2015.

18 David Dollar, "China's Rise as a Regional and Global Power", Horizons, Summer 2015, Issue No. 4.

The Trans-Pacific Partnership and Vietnam

Opening up a bold new world for Vietnam's trade and industry may not be so easy.

By Duong Nhu Hung and Tran Quang Dang

Vietnam began its journey towards economic reform in 1986 when the government initiated the Doi Moi policy with the intent of establishing a socialist-market oriented economy. Since then, the country has engaged in 15 free trade agreements (most of them bilateral) along with numerous policy changes that have led to the gradual opening up of the economy. The results are evident: Vietnam's trade increased ten-fold from US$30 billion in 2000 to almost US$300 billion in 2014. The fact that Vietnam moved up from a ranking of 148 to 131 on the Index of Economic Freedom[1] in just one year (between 2015 and 2016) illustrates that the nation is poised to push further up the economic liberalisation ladder. Yet, the climb will not be easy.

The Trans-Pacific Partnership (TPP), a trade agreement among 12 Pacific Rim countries—Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the U.S. and Vietnam—is Vietnam's most ambitious free trade deal to date. Collectively, TPP member countries represent 40 percent of global GDP and one-third of global trade; and their combined population of 800 million makes the TPP the largest regional trade agreement to date.[2]

Should it come into effect, the TPP will offer a huge opportunity for Vietnam to increase its access to these markets as well as benefit from the seamless flow of trade and investments across the 12 nation states. On the flip side, Vietnam will be subject to extraordinary competitive pressures and policy reform measures—even more so than when it joined the World Trade Organization (WTO) in 2007, or in its preparations for 2018 when the ASEAN Free Trade Agreement is scheduled to remove all import duties for the ten members in the Southeast Asian bloc. Compliance with WTO membership is more achievable than meeting the obligations set by either the ASEAN agreement or the TPP, despite the WTO being a much larger, complex group of countries.

In this article, we discuss the potential opportunities and challenges posed by the TPP for Vietnamese industry and business.

Compliance with WTO membership is more achievable than meeting the obligations set by either the ASEAN agreement or the TPP.

Free trade: Does everyone benefit?

In 1817, David Ricardo first propounded the Theory of Comparative Advantage and explained why a country can benefit from trade even when its labour productivity is higher for all goods produced (that is, it has a higher absolute advantage) than that of other countries. Admittedly, we don't operate in perfect markets that offer perfect solutions

> As the member with the lowest labour cost among TPP countries, Vietnam can potentially attract a lot of foreign investment.

from economic theory. However, the benefits of free trade have been illustrated, time and again, by researchers, policy makers, and multilateral aid organisations. For instance, according to one study by the International Monetary Fund, a one percent increase in a country's trade openness (measured as merchandise trade as a share of GDP) can result in an increase in GDP per capita in the range of 0.7 to 1.2 percent.[3]

With a ratio of trade to GDP of 161 percent, the fifth highest in the world in 2014,[4] Vietnam's economy has already reaped a lot of benefit from trade liberalisation (refer to Figure 1). The country's per capita GDP has increased from US$239.4 in 1985 (pre-Doi Moi) to US$2,052.3 in 2014.[5] For the past 15 years, its annual GDP growth has hovered between 5.5 and 7.5 percent.[6] Taking into account purchasing power parity, Vietnam's GNI per capita has more than doubled between 2001 and 2014, from US$2,220 to US$5,350.[7]

It is hoped that Vietnam will get even more benefits if the TPP agreement comes into effect. Overall, improved trade and investment will result in higher economic growth. As the member with the lowest labour cost among TPP countries, Vietnam can potentially attract a lot of foreign investment. With MNCs setting up manufacturing operations in Vietnam, consumers will also have better access to cheaper high-quality branded products.

Nonetheless, there are several factors that make the TPP particularly challenging for Vietnam. The first of course, is that the agreement is among 12 countries with vastly different levels of development and types of government. The contrast between the U.S., Japan and Australia on the one side, and Brunei, Peru, Malaysia or Vietnam on the other, is a case in point.

COMPETITION

Under the TPP, tariffs on most goods and services will be reduced (in the case of Singapore, tariffs on goods will be completely removed), and Vietnam's market will be gradually opened to foreign competition. Since the TPP contains member countries that are home to powerful MNCs, Vietnamese firms will find themselves exposed to competition they had never encountered before. ASEAN-based firms, with perhaps the exception of a few Singaporean companies, do not have the same level of global competency as large American and Japanese firms. This is a frightening prospect for many Vietnamese firms and small business owners, particularly in the animal husbandry and agricultural sectors, whose scales of operation and automation levels are much lower than those of their peers in North America, Australia and New Zealand. And competition will only grow as more countries join the TPP. For example, Thailand and South Korea have already signalled their intent and interest to apply for TPP membership in the near future.

Regardless, the TPP offers great opportunity for Vietnamese companies. It will provide access to lucrative foreign markets, even though entering these markets will require greater managerial skills and investments in human capital and technology to make higher quality low-cost products.

CAPITAL FLOWS

Foreign investment will also flow unhindered under the TPP. This is

TRADE OPENNESS (MERCHANDISE TRADE AS A PERCENTAGE OF GDP)

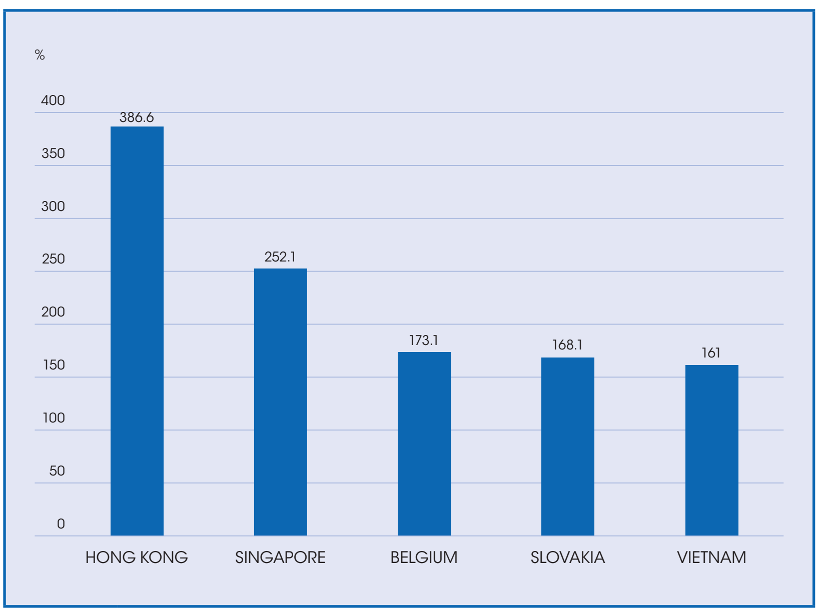


FIGURE 1

Source: The World Bank

another key aspect where the TPP differs from the WTO and ASEAN structures. When the TPP goes into effect, Vietnamese firms will gain access to credit from foreign banks and financial institutions. However, foreign firms will also have the opportunity to invest in local companies, including banks. Thus, although there will be enormous financial benefit for Vietnam, it will however expose the country to the global financial system, and increase its vulnerability to higher risk of capital flight in the event of an economic downturn.

REGULATORY COMPLIANCE

Vietnamese firms must comply with a number of international trade norms and standards relating to intellectual property, labour and the environment in order to participate in the reduced tariff schedule of the TPP. This includes compliance with criteria set by the World Intellectual Property Organization and adherence to child labour and workers' rights laws, as well as certain guidelines on environmental pollution.

There are two key challenges here. The first is regulatory reform at the government level, which requires political resolve and will be a major force for pushing economic reform. Currently, Vietnam maintains strict laws on information disclosure in the name of national security, meaning that the government's policies are still quite opaque. Once the TPP goes into effect, Vietnam must openly disclose policy information to investors. This will be a significant culture change for policymakers.

The second is industry compliance–which is the more difficult challenge–as it will require educating the businesses and bringing about cultural and organisational change across a large number of players that are accustomed

Once the TPP goes into effect, Vietnam must openly disclose policy information to investors. This will be a significant culture change for policy makers.

to 'business as usual'. This will be a significant transformation for Vietnamese companies, and will materially add to the complexity of business operations, especially with regard to cross-border input protocols involved in entrepôt trade.

For example, if a Vietnamese company imports a production input from a company in ASEAN that is not a member of the TPP, say yarn from Indonesia, and then uses that yarn to produce T-shirts that are sold in Canada, then those T-shirts would not qualify for the TPP tariff schedule. To be included in the tariff schedule, a product must be completely sourced from, and manufactured in, TPP member countries. This is, in part, beneficial for Vietnam because it can better compete on price against other low-cost manufacturing countries like China (which has not signalled its intention to join the TPP so far).

But there are downsides to the input protocols too. Take the example of pharmaceuticals. Presently, Vietnam is able to supply cheap drugs by manufacturing generics or importing such drugs from India. However, if these drugs are in violation of the intellectual property (IP) rights of TPP member countries, then Vietnam will no longer be allowed to sell generics, thereby substantially increasing the cost of pharmaceuticals. This is a big issue since many generic drugs from both India and Vietnam are currently reverse engineered, which is in violation of the TPP IP regime. If Vietnam is found to be peddling these drugs, the country could face punitive action, such as fines and trade sanctions, from TPP member countries.

IP infringement has been a problem for Vietnam in the past, especially in terms of counterfeit trafficking with China. However, the government has begun cracking down on IP violations and enforcing penalties. This can include up to ten years in prison for severe infractions, such as trafficking, but can also include more minor forms of criminal prosecution and fines.

BUDGETARY IMPACT

Once businesses are compliant with the TPP regime, they will be able to take part in the new tariff structure. While this applies to both importers and exporters, Vietnam exporters will gain more than the importers. For instance, in 2014, Vietnamese exports were subject to US$2.6 billion in tariffs compared to only US$892 million levied on the country's imports. At zero tariffs, this amounts to an immediate US$1.7 billion in tax savings, which is equivalent to 0.91 percent of Vietnam's GDP. If the tariff rate is gradually reduced, the country can expect to see a net total tax savings of 4.5 percent of GDP over the next 10 years.[8]

Of course, this also means that the Vietnamese government will be collecting less in tariffs. Currently, the government earns 9.4 percent of its revenue from tariffs. However, imports from TPP member countries only constitute 2.7 percent of total revenue, which the government will likely offset with increased consumption tax on products like tobacco, alcohol, gasoline and automobiles.

Rebalancing trade partners

The trade weight of Vietnam's trading partners will also be impacted by the TPP. Today, China is Vietnam's largest trading partner, accounting for 30 percent of total imports into Vietnam and 10 percent of Vietnamese exports. While trade between Vietnam and China accounts for 20 percent of Vietnam's total trade, it adds up to a mere two percent of China's total trade. This creates an issue of economic security for Vietnam—if there are any disruptions to trade due to the territorial disputes in the South China Sea, for example, Vietnam's economy will suffer disproportionately more from the setback.

In addition to an unfavourable trade balance, the trade structure also puts Vietnam at a disadvantage. Most of Vietnam's exports to China are low value-added products (raw materials like crude oil, rice, shrimp, and cashew) while its imports from China consist of higher value-added products such as intermediate and capital goods. In 2014, Vietnam was a net exporter of US$4 billion in raw materials to China, but a net importer of US$16.4 billion in capital goods, US$13.6 billion in intermediate goods, and US$2.5 billion in consumer goods (refer to Figure 2). For example, Vietnam exporters use intermediate goods like fabrics from China as an input for the local textile industry, and export ready-made garments to other countries.

Our further investigation reveals that while Chinese imports are able to easily penetrate the Vietnamese market, Vietnamese exports struggle to establish a footprint in China, despite lower tariffs. In 2014, Vietnam exported only US$3.3 billion of consumer goods to China compared to US$32 billion to the TPP countries, even though the average tax rate is 5.71 percent in China compared to 7.36 percent in the TPP countries. China enjoys favourable access to the ASEAN markets in general and Vietnam, in particular, because of the ASEAN-China Free Trade Area agreement, which is one of the main reasons for Vietnam's high trade deficit of US$28.4 billion (in 2014) with China. Vietnamese exports to China face direct competition with comparable products produced in China itself, which have the

VIETNAM'S TRADE PARTNERS IN 2014 (US$ BILLION)

Partner	Trade Flow	Raw Materials	Intermediate Goods	Consumer Goods	Capital Goods	Total	% Total Exports (Imports)
WORLD	Export	23.74	19.72	60.81	44.52	148.80	100%
	Import	11.85	54.38	25.86	53.77	145.86	100%
	Net Export	11.88	(34.66)	34.96	(9.25)	2.93	
ASEAN	Export	3.18	5.04	5.14	5.61	18.98	13%
	Import	1.68	6.91	7.24	6.70	22.54	15%
	Net Export	1.50	(1.87)	(2.10)	(1.09)	(3.56)	
CHINA	Export	4.59	3.25	3.28	3.74	14.87	10%
	Import	0.55	16.82	5.80	20.13	43.30	30%
	Net Export	4.04	(13.57)	(2.52)	(16.38)	(28.43)	
EU27	Export	3.17	1.10	11.78	11.80	27.85	19%
	Import	0.48	2.50	2.40	3.39	8.76	6%
	Net Export	2.69	(1.40)	9.39	8.41	19.09	
TPP	Export	10.24	4.79	32.09	11.09	58.21	39%
	Import	4.03	9.85	7.31	12.23	33.43	23%
	Net Export	6.21	(5.06)	24.78	(1.15)	24.78	
OTHERS	Export	4.57	6.50	10.20	14.48	35.75	24%
	Import	5.37	20.69	7.40	15.22	48.69	33%
	Net Export	(0.80)	(14.19)	2.80	(0.75)	(12.94)	

FIGURE 2

Source: UN Comtrade, International Trade Statistics Database advantage of scale. Furthermore, only five out of Vietnam's top 20 export products could penetrate the Chinese market compared to 14 that could penetrate well into the TPP markets.

If the TPP comes into effect, imports from China will be impacted on two levels: first, the goods imported from TPP countries will become more affordable for Vietnamese consumers; and second, Vietnam producers are more likely to replace intermediate goods from China with those from TPP markets.

The TPP also gives Vietnam the opportunity to diversify its portfolio of trading partners and enter into potentially more lucrative markets. The trade flows are more advantageous with exports from Vietnam to TPP countries accounting for 39 percent of Vietnamese exports, while imports from TPP countries to Vietnam formed only 23 percent of Vietnam's total imports. In addition, Vietnam maintains a net export position with the TPP in both consumer and capital goods, industries that are large employers in Vietnam. This rebalancing is supported by Vietnam's comparative advantage in the production of textiles, shoes, suitcases, and seafood–all of which have high penetration into TPP member countries but do not do well in China and most ASEAN countries. Vietnamese exporters of these products will gain the most by selling to the U.S., Malaysia and Canada.

So, who will benefit?

Producers of consumer and capital goods, particularly from Singapore, Japan and the U.S., will certainly receive more orders from Vietnam when tariffs are significantly reduced on gasoline, machine and equipment, cars, poultry, milk, wine and tobacco. Similarly, Vietnamese producers of textiles, shoes, suitcases, rice, seafood, rubbers, etc. will witness a jump in sales to the American, Malaysian, and Canadian markets.

Some local industries will also have the opportunity to turn around their competitive positions if they can leverage Vietnam's low labour costs. For instance, the car manufacturing industry in Vietnam had traditionally found it difficult to attract foreign investments, and is deemed to be in a disadvantageous position when Vietnam eliminates automobile tariffs for the ASEAN countries starting 2018. However, if car manufacturers in Vietnam successfully take advantage of having the lowest labour costs among the TPP countries, they will be able to attract foreign investments and become production bases to export to other countries in Asia, or even other TPP countries.

MNCs will be the biggest winners because they will benefit from tax savings on the sides of both imports and exports. It is obvious that the TPP agreement will help these global distributors save tax and increase sales and profits on the products imported from the TPP countries to Vietnam. However, they will also capture most of the tax savings from the products exported from Vietnam to the other TPP countries.

Vietnamese manufacturers will certainly benefit in terms of expanding sales volumes; however, whether the MNCs will pass on the tax savings to Vietnamese manufacturers depends on the negotiation between the two parties. It is highly unlikely that Vietnamese manufacturers will be able to negotiate a significantly favourable price, mainly because of fierce competition among Vietnamese firms. Some Vietnamese businesses will receive a windfall of orders, but order prices are unlikely to increase significantly and workers will likely not experience much, if any, change in their standard of living. Vietnam needs to avoid the trap of being seen only as a labour-abundant country that produces low-quality, cheap products. It must use its preferential relations with TPP countries as a means of climbing up the value chain.

No gain without pain

Of the 12 countries signing the TPP, Vietnam is perhaps the most profoundly impacted. There are both positive and negative aspects to any free trade deal, with some winners and some losers, but what matters most is the net effect on the welfare of society as a whole, and that of the average Vietnamese.

If Vietnam is to become more internationally competitive and enjoy a higher standard of living, like Japan or South Korea, then the country must commit to substantial change at both the government and business levels in order to adapt to the new environment. The rewards are high and there is a strong willingness among the people of Vietnam to step up to these challenges.

The country has certainly already overcome much graver and more difficult challenges in the last 40 years. Yet there is still scope for Vietnam to improve its governance and economy, and in that respect, the TPP should be examined in the context of Vietnam's history of reform. This will no doubt be a rocky transition.

But consider the alternative of not joining, which is also a risk; the risk of maintaining the status quo. The TPP represents an opportunity to drive Vietnam forward and position itself for longer-term growth. By entering the TPP, Vietnam will be forced to become more competitive, which in turn (hopefully) will lead to greater economic, social and regulatory reform. It will have to be a delicately balanced transition, and smart investments will be needed to guide the country towards greater prosperity. Cautious optimism is needed.

Duong Nhu Hung

is Vice Rector of the University of Economics and Law, Vietnam National University - Ho Chi Minh City (VNU-HCM)

Tran Quang Dang

is Chief Executive Officer and Senior International Law Expert at Brighton & Lighton International

References

1 The Heritage Foundation (in partnership with The Wall Street Journal), "2016 Index of Economic Freedom".

2 Government of Singapore, Ministry of Trade and Industry, "Trans Pacific Partnership Free Trade Agreement (TPP): 7 Things You Should Know".

3 Allan D. Brunner, "The Long-run Effects of Trade on Income and Income Growth", 2003, IMF Working Paper WP/03/37.

4 The World Bank, "Merchandise Trade (as % of GDP)".

5 The World Bank, "GDP per capita (current US$)".

6 The World Bank, "GDP Growth (annual %)".

7 The World Bank, "GNI per capita, PPP (current international $)".

8 Authors' own estimates.

2016 WORLD CITIES SUMMIT

LIVEABLE & SUSTAINABLE CITIES:
INNOVATIVE CITIES OF OPPORTUNITY

WORLD CITIES SUMMIT

10 – 14 JULY 2016

SANDS EXPO & CONVENTION CENTRE
MARINA BAY SANDS, SINGAPORE

The World Cities Summit (WCS) is the exclusive platform for government leaders and industry experts to address liveable and sustainable city challenges, share integrated urban solutions and forge new partnerships.

The 5th edition of this biennial event will be held in conjunction with the Singapore International Water Week and CleanEnviro Summit Singapore.

HIGHLIGHTS

- World Cities Summit Mayors Forum
- World Cities Summit Young Leaders Symposium
- Lee Kuan Yew World City Prize Lecture and Forum
- Plenary sessions and WCS Thematic Tracks
- Thematic Forums and Business Forums
- Networking events and site visits

In 2016, WCS will explore how cities can plan and govern better to serve their residents and build up resilience through policy, technology and social innovations. Active engagement will produce more opportunities for the public, private and people sectors to co-create innovative and integrated solutions for a more liveable and sustainable future.

CONFIRMED SPEAKERS AT WORLD CITIES SUMMIT 2016

- Tharman Shanmugaratnam, Deputy Prime Minister and Coordinating Minister for Economic and Social Policies, Singapore
- Dr Han Seung-soo, Special Envoy of the UN Secretary-General on Disaster Risk Reduction and Water
- Mayor Dr Ko Wen-je, Taipei
- Mayor Len Brown, Auckland
- Mayor Park Won Soon, Seoul
- Charles O. Holliday, Chairman, Royal Dutch Shell
- John Macomber, Professor, Harvard Business School
- Luis Bettencourt, Professor of Complex Systems, Santa Fe Institute
- Mayor Ahmed Aboutaleb, Rotterdam
- Mayor Donald J Atchison, Saskatoon
- Patrick L. Philips, Global CEO, Urban Land Institute
- Peter Brabeck-Letmathe, Chairman, Nestlé

REGISTER EARLY TO ENJOY SAVINGS & START CONNECTING

Registration for the World Cities Summit 2016 is now open! Register today at www.worldcitiessummit.com.sg before the Early Bird discount ends in April 2016.

More importantly, register early to get on board the Connect@WCS platform where you will be able to make appointments to meet other participants, including Summit speakers, mayors, senior policy makers and industry leaders.

For Registration Enquiries, please email to
registration@worldcities.com.sg

LEE KUAN YEW WORLD CITY PRIZE SPONSOR:
Keppel Corporation

PATRON SPONSORS:
Cisco | Hewlett Packard Enterprise | SJ building cities shaping lives

ORGANISED BY:
Centre for Liveable Cities Singapore | Urban Redevelopment Authority

PLATINUM SPONSORS:
3M | Ascendas Singbridge | ENGIE | Microsoft | ncs | Shell | UOL

HELD IN:
YourSingapore

SUPPORTED BY:
Singapore Exhibition & Convention Bureau

EVENT ORGANISER:
experia events that influence

The new face of business model innovation

Are Chinese Internet companies eclipsing American inventiveness?

By George Hylden

Chinese business models are often described as western transplants that innovate or adapt to fit their local market, whereas western innovativeness is typically seen as being more inventive. But is this actually the case? A comparative analysis of pioneer Internet business models in the U.S. with those in China, as the follower market, reveals systematic differences in both the incidence and type of business model innovation. Adopting an inventive versus a copy-paste and adapt approach, for example, can have a strong impact on corporate performance.

Meanwhile, it is also worthwhile to ask whether the inventive approach has worked well in the home markets where it originated. Consider the disappointing financial performance of U.S. Internet pioneers Amazon, Yahoo, and Facebook. Not only have their overall business strategies been called into question, but their respective business models too have come under intense scrutiny from managers and investors alike. Long-term considerations such as strategies aimed at gaining market share, or short-term operational fixes like elaborate cost-cutting schemes, have so far yielded little in the way of desired financial profitability.

The well-documented success of Chinese Internet giants Alibaba, Baidu and Tencent, on the other hand, indicates that the performance of Internet business models can be exceedingly lucrative, far beyond what American narratives portray. In fact, Chinese companies have succeeded in what their U.S. counterparts have failed to achieve–systematically seizing upon business model innovation to turn value-added propositions into profitable businesses.

Resolving the performance paradox

Contrary to expectation, Internet companies in China, the follower market, exhibit both a higher incidence and a superior type of business model innovation that translates into superior performance as compared to their counterparts in the pioneer Internet market in the U.S., and the West in general, as an extension of that market. It is forgivable to think that a first-mover advantage in a pioneer market would result in greater financial success, but a closer examination of the companies emerging in the follower market reveals the underlying logic behind successful business model innovation that is 'Made in China'.

Empirical evidence suggests that the West largely relies on business model invention through technology leadership. China, in contrast, is predominantly characterised by business model innovation, which is achieved through integrated solutions platforms. This may imply that technology leadership and business model invention are secondary to business model innovation and integrated solutions when it comes to realising financial profitability.

To illustrate this point, I look at American and Chinese companies in three market segments: online sales platforms; online search engine and information service platforms; and online social media and communications platforms. In each segment, I compare and contrast the business models and performance in the pioneer and the follower market. The stories of China's online giants—Alibaba, Baidu and Tencent—in their respective market segments show how each of these companies have used business model innovation in the follower market. Alibaba, for instance, is an example of ***cementing*** a first-mover advantage, with the leader fending off the challenger. The case of Baidu is an example of ***inverting*** a first-mover advantage with the challenger upstaging the leader, while that of Tencent illustrates ***neutralising*** a first-mover advantage with the leader and challenger, preserving the status quo by engineering a stalemate situation.

It is forgivable to think that a first-mover advantage in a pioneer market would result in greater financial success, but a closer examination of the companies emerging in the follower market reveals the underlying logic behind successful business model innovation that is 'Made in China'.

Online sales: Alibaba fends off the challenger

PIONEER MARKET: AMAZON, EBAY AND PAYPAL

Amazon.com, the direct online seller that was launched in 1995, eBay, the third-party online sales platform (1998) and PayPal, the online payment platform (1998), all emerged as dominant players in the U.S. online sales market. From the point of value creation and delivery, all three start-ups initially served their respective market segments and operated stand-alone business models. Amazon's initial focus was on business-to-consumer (B2C) direct selling enabled by a vast supplier network and its own warehouses. In contrast, eBay focused on B2C and consumer-to-consumer (C2C) third-party transactions, with PayPal facilitating online sales transactions through its online payment system.

In terms of value appropriation, Amazon's revenue model was built upon charging transaction fees to sellers, as well as fee-based advertising, and thus relied on a high turnover of stock. Its cost model though was built on managing working capital-intensive inventory as a variable cost, which relied on a high turnover of stock in addition to indefinite platform scalability as an initial fixed cost with subsequent near-zero marginal costs.

Over time, Amazon effectively sought to rebalance its revenue-cost-profit architecture away from B2C direct selling towards operating a third-party transaction platform. In addition to entrenching itself as the incumbent in the high volume, low profit B2C direct selling segment, it practised horizontal post-hoc integration and consolidation through the launch of Amazon Marketplace in an effort to rival eBay in the profitable C2C market segment. In time, Amazon Marketplace, a B2C and

> Not only does Alibaba Group's business model differ from Amazon's in that it engages in no capital-intensive direct selling, it is also much broader in focus.

C2C third-party transaction platform, overtook Amazon's traditional direct-selling platform in both revenue and profitability. However, overall operating profits still did not come close to the lofty stock market valuations that were expected following its Initial Public Offering (IPO) in 1997.

By contrast, eBay's acquisition of the moderately profitable PayPal in 2002 constituted a step toward vertical post-hoc integration. But due to a lack of sustainable functional and operational integration, eBay eventually yielded to shareholder pressure and spun off PayPal in 2012, thereby effectively undoing previous post-hoc integration and consolidation.

Amazon seized the first-mover advantage to entrench itself in the less profitable B2C market segment, while eBay established itself as the incumbent in the more profitable C2C market segment. Thus eBay fended off Amazon Marketplace, its closest challenger, by way of vertical post-hoc integration and consolidation through the acquisition of PayPal.

FOLLOWER MARKET: ALIBABA

The Alibaba Group emerged as the dominant player in the Chinese online sales platform market. In addition to its eponymous business-to-business (B2B) third-party transaction platform launched in 1999, Alibaba comprises Taobao, a C2C sales platform that launched in 2003, AliPay, an online payment transaction platform (2004), Tmall, a domestic B2C sales platform (2008), and AliExpress, an international B2C sales platform (2010).

From the point of view of value creation and value delivery, not only does the Alibaba Group's business model differ from Amazon's in that it engages in no capital-intensive direct selling, it is also much broader in focus, spanning B2B, B2C, and C2C activities both domestically and, to an increasing degree, internationally.

In terms of value appropriation, rather than charging sellers a transaction fee, Alibaba Group's revenue model focuses on cross-platform referrals with monetisation on the basis of fee-based advertising by sellers, and an incentive structure that has made it more independent of transaction volumes. Its cost model is based on non-capital intensive cost innovation that accommodates both volume and differentiation strategies, with indefinite cross-platform scalability as an initial fixed cost that benefits from subsequent near-zero marginal costs.

In time, Taobao's C2C third-party transaction platform overtook Alibaba's traditional B2B and B2C third-party transaction platforms in both revenue and profitability, and established itself as the unchallenged leader of Chinese online sales platforms. This was very much in line with a shift in Alibaba's dominant business models from B2B and B2C to C2C third-party transactions.

Alibaba's horizontally and vertically integrated solutions, ranging from its B2B and B2C platforms to Taobao's C2C third-party platform, as well as novel revenue and cost models, yielded superior operating profitability. This was in addition to the capital gains realised at its IPO in 2014. Alibaba's internal business model innovation in the profitable third-party transaction market segment pre-empted competition such that potential challengers like JD.com and Amazon.cn were limited to the less profitable B2C direct selling market segment.

Like Amazon, Alibaba created and seized the window of opportunity to establish its first-mover advantage in the market. However, unlike Amazon, it has been able to entrench itself and cement its position as the incumbent in the more profitable B2B and B2C to C2C third-party transactions segment while deterring and fending off potential challengers. In doing so, Alibaba employed business model innovation so as to ***cement*** a first-mover advantage.

Online search engines: Baidu upstages the incumbent

PIONEER MARKET: GOOGLE AND YAHOO

Google launched its search engine in 1998, and followed up with a host of ancillary offerings, thereby upstaging Yahoo!. By 2005, Google had emerged as the dominant player in the U.S. online search engine market. While Yahoo! took advantage of the window of opportunity for a first-mover advantage that propelled it to the top of the online information service market segment, Google took advantage of the late-mover advantage that subsequently helped it to supplant Yahoo! as the leader.

From the point of view of value creation and value delivery, Google invested in the broad strategic development of its online search engine and information services platform. For instance, Google's in-house R&D department produced the web map service Google Maps, and its multilingual translation service Google Translate. These complemented its purchase of video sharing platform YouTube, and led to horizontally and vertical integrated solutions in the form of integrated user and content platforms respectively.

In terms of value appropriation, Google's pioneering revenue model relied on monetisation through personalised ads, allowing customisation on the basis of search engine usage profiling. Its cost model relied on a search algorithm that was self-improving as a function of usage. The model carried the potential of realising even negative marginal costs through economies of scope and scale, rather than merely decreasing or near-zero marginal costs.

Google has since transformed itself into one of the two most valuable technology companies alongside Apple, and has repositioned itself by launching inventions and innovations such as Google Glass and Google self-driving cars, in an effort to integrate hardware and software solutions to leverage its online offerings.

However, there have been limitations in commercialising the online information service platforms in the pioneer market. For instance, Wikipedia, a not-for-profit online encyclopaedia that acts as a user-generated content provider platform, emerged as the dominant and unchallenged leader in the online encyclopaedia platform market.

FOLLOWER MARKET: BAIDU

Baidu Inc. emerged as the dominant player in the Chinese online search engine and information services platform market, with Sohu's Sogou.com a distant second. Other domestic online search engines such as Qihoo 360 hold a negligible market share along with niche search engine platforms such as Alibaba's Alicloud, and Tencent's Soso.com. Chinese operations of U.S.-based online search giants–Google China and China Yahoo!–although initially strong competitors, eventually exited the Chinese market.

From the perspective of value creation and value delivery, Baidu's business model was similar to Google's in that it redefined its market as a combined online search engine and information service platform market. In addition, it was also much broader in focus in that it linked vertically integrated solutions (user-generated content provider and distributor platforms) to horizontally integrated solutions (user access service platforms).

In terms of value appropriation, Baidu's revenue model relied on a combination of pay-for-placement (P4P) and pay-per-click advertising, which hedged risks in the company's revenue stream and provided an incentive structure for increasing site traffic at the same time. The cost model though, relied on the immense scalability of platform development as an initial fixed cost for subsequent near-zero marginal costs.

Baidu realised the potential for horizontally and vertically integrated solutions by initiating the shift from searching third-party encyclopaedic content only, to using its search engine to power searches of its own commercial online encyclopaedia. At the same time, it capitalised on the exclusive right to access, distribute and commercially exploit third-party content. Baidu's Baike thus became the largest Chinese online encyclopaedia by all monetisation-relevant measures: end-user count, page views and web traffic, after having upstaged Hudong's Baike, which remained the largest Chinese online encyclopaedia by article count.

Like Google, Baidu emerged as the market leader by pursuing business model innovation that merged the search engine market segment with the online information services market segment. However, Baidu succeeded in what Google failed to do: By upstaging the incumbent and acceding to the market leadership in the online encyclopaedia market segment, it turned the not-for-profit online encyclopaedia market segment, which relied on voluntary funding, into a for-profit model. In doing so, Baidu employed business model innovation so as to invert a first-mover advantage.

Online social media and communications: Tencent preserves the status quo

PIONEER MARKET: FACEBOOK, TWITTER AND WHATSAPP

Facebook, launched in 2004, Twitter (2006) and WhatsApp (2010) all emerged as dominant players in the U.S. online social media and communications platform market. From the point of view of value creation and value delivery, the firms operated stand-alone business models, and thereby created new market segments within the overall online entertainment and communications platforms market on the basis of proprietary platforms. This, however, led to fragmented market segments—Facebook's social networking platform, Twitter's social networking and microblogging communications platform, and WhatsApp's instant messaging services platform for smartphones.

From the perspective of value appropriation, subtle differences in the revenue-cost-profit architecture account for the relative performance differential of these companies—all three act as platform providers for third-party social network and communication and, as such, only provide the software infrastructure for user-generated publicly accessible content or user-generated private communication.

Facebook's business model focused on a third-party advertisement-driven revenue model with freemium services, while its cost model benefitted from the vast scalability of social networking and perpetual user-generated content. Twitter's business model operated on the basis of third-party advertisement-driven retweeting (i.e. promoting commercial tweets), while its cost model relied on the one-off nature of software and infrastructure investment, and perpetual user-generated publicly accessible communication. WhatsApp relied on a subscription-based revenue model by virtue of acting as a substitute for chargeable mobile messaging services, with a cost model similar to that of Twitter.

While Facebook realised substantial capital gains prior to its IPO in 2012 (in addition to relatively modest operating profit mainly through third-party monetisation), Twitter remained largely unprofitable, with only WhatsApp exhibiting superior profitability through direct monetisation. Facebook's subsequent takeover of WhatsApp in a landmark cash and stock deal in 2014 then constituted an instance of post-hoc consolidation, with an aim to reap the benefits of horizontal and/or vertical integration required for an integrated solutions platform.

Baidu succeeded in what Google failed to do: By upstaging the incumbent and acceding to the market leadership in the online encyclopaedia market segment, it turned the not-for-profit online encyclopaedia market segment which relied on voluntary funding into a for-profit model.

FOLLOWER MARKET: TENCENT, RENREN AND SINA WEIBO

Tencent Holdings–comprising QQ, its social networking platform that was launched in 1999 as OICQ; Tencent Weibo, its online micro-blogging platform (2010) and WeChat, its online instant messaging platform for smartphones (2011)–emerged as the dominant player in a delicately balanced stalemate, with Sina Corp as a close second, in the Chinese online social media and communications platform market.

Tencent succeeded in becoming the market leader by developing its powerful QQ web portal, a web community and instant messaging service, and transforming it into an online social networking platform. Its judicious use of horizontally integrated solution platforms helped Tencent to successfully overcome the modest first-mover advantage of RenRen in the social networking platform segment and, more importantly, offset the substantial first-mover advantage of Sina Weibo in the micro-blogging platform market segment.

From the perspective of value creation and value delivery, Tencent redefined the Chinese online social media communications platform market by gaining a foothold in all three market segments–online social networks, micro-blogging and instant messaging for smartphones. In addition, the company anticipated, well ahead of time, that these market segments would all merge into one. So through cross-referrals and compatible user interfaces, it successfully leveraged the network effect across its platforms and user devices.

In terms of value appropriation, Tencent's revenue model converged around advertising and freemium services, while the cost model benefitted from standardised software infrastructure synergies across platforms and user-generated content, as well as infinite scalability at near-zero marginal costs.

Like Facebook, Tencent sought to gain a foothold in the social networking, micro-blogging and mobile instant messaging services market segments. However, unlike Facebook, it seized upon momentum dynamics to merge the market segments, thereby creating options for the future, preserving the status quo and engineering a delicately balanced stalemate situation. In doing so, Tencent employed business model innovation to neutralise a first-mover advantage.

> Tencent redefined the Chinese online social media communications platform market by gaining a foothold in all three market segments—online social networks, micro-blogging and instant messaging for smartphones.

Made in China does differ

The examples I mention above illustrate that the Made in China business model innovation has features that systematically differ from those of business model innovation in the West. The Made in America business model innovation, as the pioneer market, is characterised by forward innovation and backward integration. While forward innovation creates stand-alone quasi-monopolies and stifles competition, backward integration focuses on ex-post consolidation aimed at exploiting economies of scale and scope at the expense of integrated solutions. This results in a lower incidence and inferior type of business model innovation, which, in combination with an excessive focus on IPO valuations and subsequent capital gains, yields inferior performance.

In contrast, the Made in China business model innovation, as the follower market, is characterised by forward integration and backward innovation. While forward integration proceeds on a level playing field where firms compete on the basis of ex-ante integrated solutions, backward innovation proceeds on the basis of organic development of more advanced integrated solutions, This results in a higher incidence and superior type of business model innovation (refer to Figure 1), which, in combination with a focus on operating profits and capital gains, yields a superior performance.

The irony of my findings lies in the fact that the two business model innovations–Made in America and Made in China–are reverse sides of the same coin in many respects. While the Made in America technological innovation is superior to that in the follower market, the Made in China model exhibits a higher incidence and superior performance of business model innovation.

Future implications

There are significant implications for both business practitioners and policy-makers around the world. The Made in China business model innovation is incremental in that it does not rely heavily on radical technological innovation and business model invention, but on integrated solution platforms through novel combinations of readily available existing technologies and business models.

The distinctive nature of the Made in China business model innovation offers unique opportunities and challenges to business practitioners and policy-makers in Asia. First, the relative lack of legacy technology, and corporate and market structures in Asia allows for integrated solution-focused value propositions, while the absolute size of the Asian market allows for the easy scalability of integrated solutions platforms to be readily exploited. Second, Asia's gradual arrival at the technology frontier necessitates a switch to simultaneous forward integration and forward innovation which is reflected in Chinese Internet companies advancing their R&D pioneering efforts, for example, in Alibaba's growing patent portfolio since its IPO in September 2014.

As other Asian nations, along with emerging markets in Latin America and Africa, look to learn from business model innovations of global leaders, they will be faced with two distinct approaches from China and the United States. Which one will they follow? Or will the next generation of followers supersede today's leaders in both innovation and performance?

MADE IN CHINA VS. MADE IN AMERICA

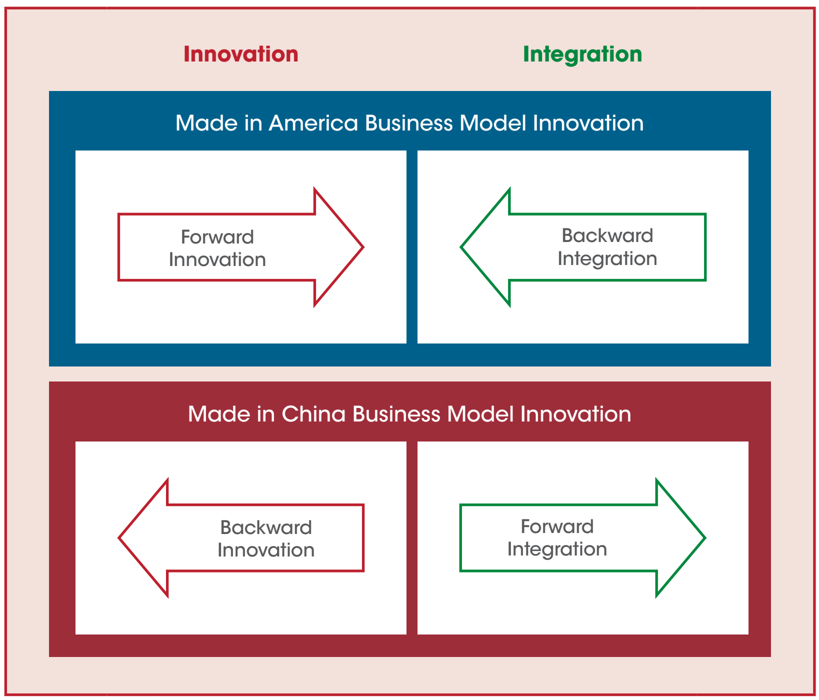


FIGURE 1

George Hylden
is a Ph.D. from the University of Cambridge, U.K., and has held visiting positions at Princeton University, Singapore Management University and the University of Nottingham's China campus

From lights out to lights on

By Ravi Chidambaram

How Sunlabob went from providing affordable, sustainable energy in rural Laos to becoming an international turnkey operator and co-developer.

Progress is inherently iterative, and solving difficult problems usually requires multiple attempts. This is even more so when looking to alleviate unmet human needs in underdeveloped countries, where corruption, poverty, low-levels of human capital and inadequate infrastructure make providing the essentials a herculean endeavour. Often the challenges are so great that it takes multiple attempts–with partners working in concert–to develop an effective solution.

When German Andy Schroeter arrived in northern Laos to work on a food security programme in 1995, he realised there was a huge unmet demand for electricity. Only about

30 percent of the country, mostly along the populated Mekong Valley, had access to grid electricity. The rest of Laos was basically dark, save for villages that ran diesel generators which provided limited power.

"These could only run for a few hours at a time," said Schroeter, an electrical engineer by training. "After that it was lights out. So I realised there's a huge potential for rural energy, and specifically, renewable energy."

In 2000, Schroeter relocated to Vientiane, the capital of Laos, to found Sunlabob Renewable Energy, which was officially established the following year as a foreign-owned commercial enterprise with the goal of providing affordable energy solutions to disadvantaged communities in rural Laos.

Learning on the job, adjusting to reality

As rural areas are often remote, they lack the necessary infrastructure to effectively and affordably extend electric-grid coverage. Modular solar photovoltaics (PV), more commonly known as solar electric panels, are the perfect solution: it is the cheapest option to generate power even after taking into consideration diesel generators, and can be set up to provide clean power to a single home or an entire village.

PV is also more affordable than wind or hydroelectric power (hydro) as the latter two have higher capital costs and depend on the availability of consistent wind or flowing water, respectively.

The first obstacle Schroeter faced was the location of customers: a population of six million people living in an area the size of the U.K. (which has a population of 64.1 million[1]), but with very little infrastructure. Most of Schroeter's potential customers lived in remote and rural areas, far away from Vientiane. Although many NGOs and international donor agencies operated in Laos to reach these communities, Schroeter was leery of copying their working models, as he thought they focused too much on one-off PV projects. "Some of these donor-funded projects may electrify 20,000 households here and 50,000 households there," Schroeter explained. "But there isn't enough focus on long-term sustainability. [PV] technology should run for 20 years, but a lot of these systems are failing after two to three years–it's quite sad."

Instead, he opted for a more sustainable approach that used a private sector model: a countrywide franchise network that started with 70 people from various ethnic groups who came to Vientiane to receive technical and business operations training. Upon completion of training, these franchisees opened an account with Sunlabob and returned home to set up energy-focused micro-enterprises. Sunlabob supplied the franchisees with everything they needed regardless of the project size, from a small solar lantern to entire village grids.

However, this sales and installation model proved too costly for poor, rural communities that could not afford the upfront capital to develop such off-grid capabilities. Schroeter had to adjust; and Sunlabob switched to a 'fee for service' financing model where the company paid the upfront capital investment for rural electrification and essentially rented out the equipment. The franchisees then handled maintenance and payment collection from end users.

While it addressed the issue of upfront investment, such off-grid electricity was much more expensive than grid electricity, as the latter was subsidised by the government. That posed a problem. Schroeter elaborated, "We had an arrangement with the village and the provincial authorities for them to pay US 24 cents per kilowatt-hour. This was the best we could do to make such off-grid rural electrification commercially viable. In Europe they pay about US 30 cents. But here in Laos, the government subsidises grid users, so they only pay US 6 cents. So it's in operation for a couple of months and then people realise that their cousin, grandfather, nephew or whoever is paying six cents in the electrified area. All of a sudden they start manipulating the metres and eventually stop paying. I ended up burning US$1.5 million and still haven't recovered the investment."

> "Some of these donor-funded projects may electrify 20,000 households here and 50,000 households there…But there isn't enough focus on long-term sustainability. PV [Photovoltaics] technology should run for 20 years, but a lot of these systems are failing after two to three years—it's quite sad."
> - Andy Schroeter, founder of Sunlabob Renewable Energy.

Doing good and doing (not so) well

Sunlabob's model was due for an overhaul. As Schroeter discovered, "The return on investment is too low, it's absolutely too low! We made a big mistake when we saw the people, the beneficiaries, in these remote areas as our paying clients. Rural end-users' return on investment is too low, and they have to carry a financial burden for too long. With regard to the poorest of the poor, such as much of the population in rural Laos, they're oftentimes better off making investments in agriculture, in cash crops and productive use…not energy. Energy is a basic need, and public donors need to play a role to help ensure that these models are truly commercially viable and sustainable for a long time."

One of the many lessons in the evolution of Sunlabob's business model was that third-party capital was needed to fill the investment gap. This could be in the form of grants from corporate sponsors or international donors, with Sunlabob, as the private partner, taking on the responsibility to make rural electrification sustainable.

Schroeter also realised the importance of securing a reliable revenue stream to anchor the business. To this end, Sunlabob operated as an independent renewable power producer and sold electricity back to the Laotian utility agency through a purchasing power agreement.

After overcoming the initial steep learning curve, Sunlabob understood clearly the needs of the developing world when it came to providing access to energy and clean water in remote locations. It developed expertise in end-user training, engineering, and project implementation and management. It maintained a high quality supplier base for procurement, and had the know-how and ability to effectively transport equipment like solar panels and batteries to remote, rural locations.

The company also recognised that each community it served had unique needs, and to meet those needs it provided a flexible, customisable approach toward designing solutions–even employing energy sources beyond solar. "Some of our projects that electrify 100 homes, 200 homes, 300 hundred homes, need different energy sources," said Schroeter. "One is just PV, hydro is another. We also have hybrid grids with a combination of energy sources depending on the location of the project and services required to improve energy efficiency."

As Sunlabob gained invaluable experience and built expertise, it started to better reach its designated rural customers and was publicly recognised for providing social good. But even though the company was doing good, it was not doing well. As Laos approached full electrification, the domestic market for new business started to shrink, which further eroded profitability.

Sunlabob had mastered a unique set of skills as an on- and off-grid, rural renewable energy developer, but now faced a limited market in which to monetise that expertise. Schroeter's solution was to go beyond Laos.

More money, more problems

In 2010, Sunlabob had won its first International Competitive Bidding[2] project, and by 2014 it had won 19 more bids in Cambodia, Micronesia and the Marshall Islands. It had also worked on projects and consulted in many other countries like Uganda, Afghanistan and Bhutan, and revenues had gone up tenfold.

But where there is money to be made, there will be competition. Sometimes the desire to win a bid comes at the expense of the project's quality. Schroeter added, "We are highly recognised and have a good reputation, but we are still very small. We're competing for smaller projects against other small, often local, companies. Many of our competitors aren't as focused on sustainability. They'll undercut us on a bid, and too often these donor agencies place too much emphasis on low cost when considering a bid. The result is energy systems that are in pretty bad shape after a few years."

He was also worried about the risk that corruption played. Operating in countries with known corruption issues could place Sunlabob at higher reputational risk. Sunlabob was committed to transparency, and voluntarily submitted

One of the many lessons in the evolution of Sunlabob's business model was that third-party capital was needed to fill the investment gap.

itself to international auditing by PricewaterhouseCoopers or KPMG once a year at significant expense.

Even when Sunlabob did convince international donors to choose it over other competitors, the funds were not handed over directly. The money was given to local governments, who then paid the contractors. For Schroeter, this arrangement had the potential to interrupt the company's cash flow, making it difficult for it to operate and grow. Schroeter explained, "It has not been possible for us to attract capital through investment or acquire it through loans. Because Sunlabob is registered in Laos and is foreign-owned, we have to put up 130 percent collateral to receive a loan from a Laotian bank if we're headquartered in Vientiane...We just can't get access to finance, and foreign investors simply aren't coming to Laos and investing in us."

The Myanmar project

While Laos was no longer as attractive to investors, neighbouring Myanmar was a different story. In 2015, the World Bank estimated that only about 30 percent of the population in Myanmar was connected to the electricity grid, and that "average annual per capita electricity consumption is 160 kilowatt-hours, one-twentieth the world average... (and) in the countryside, the situation is even worse. As of 2014, only 16 percent of rural households had a connection."[3]

With the country finally opening up, 70 percent of the 55 million population were ready-made customers for Sunlabob. But Schroeter felt it made little sense to install PV solutions because Myanmar was much bigger than Laos (676,578 square km versus 236,800 square km). Bigger projects–with bigger potential for profit–were the order of the day, but Sunlabob was too small to take advantage. "We can handle an [electrification] project of, say, US$5 million," says Schroeter, "but Myanmar is so big. The global donor agencies aren't even looking at anything less than US$20 million. And even with all our great ideas and approaches, it's hardly possible for us to absorb the costs of a US$20 million project."

One solution was for Sunlabob to become a turnkey operator and co-developer in a private-private partnership (refer to Figure 1).

If successful, this model would be rolled out to other markets where Sunlabob could apply renewable energy and clean water solutions. To gain the necessary expertise, Sunlabob held talks with its partner Relitec, a Yangon-based company that specialised in engineering, installation, and maintenance of solar technology. Schroeter believed the partnership would help both companies deliver high-quality, renewable, reliable and affordable energy to off-grid communities, while providing the means to support clean water solutions as well.

One matter remained unresolved: How would this project be financed? Schroeter's idea was to provide off-grid electricity to telecoms; 10,000 to 15,000 telecom base stations had to be built off-grid to meet the country's demand for wireless communication, and these stations needed power. Instead of

SUNLABOB'S FINANCING STRUCTURE FOR TURNKEY OPERATOR AND CO-DEVELOPER BUSINESS MODEL USING BUILD-OPERATE-TRANSFER MODEL

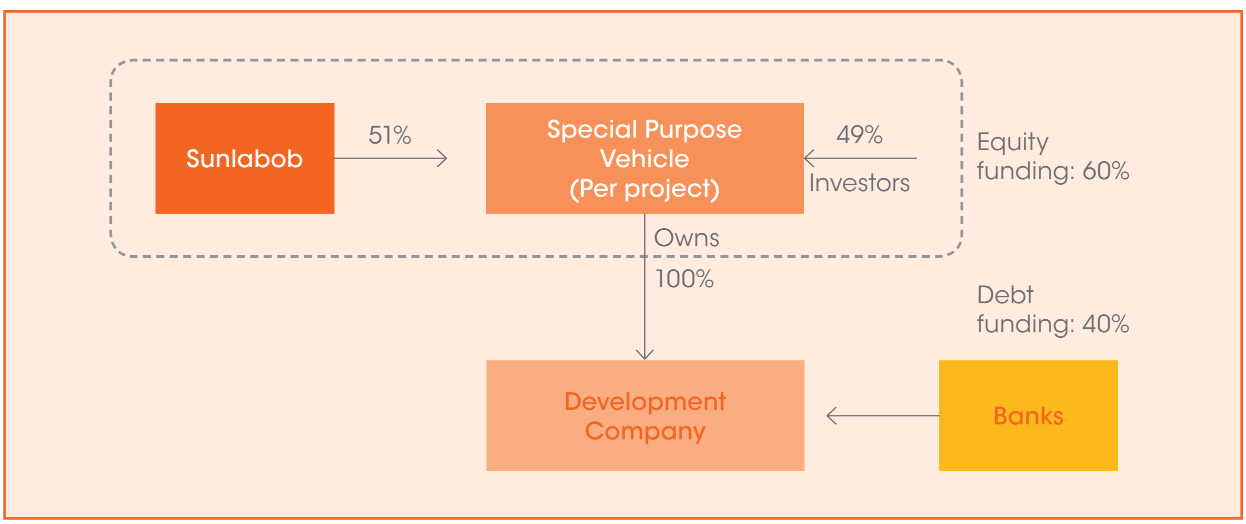


FIGURE 1

Source: Sunlabob

The market-based model of building village mini-grids and off-grid rural telecom towers in Myanmar offers huge potential for growth.

the traditional method that used diesel generators, Sunlabob's managing director in Myanmar, Evan Scandling, proposed going solar with diesel as backup.

"You size the system appropriately so, yes we're supplying viable electricity to that anchor client [the telecom], but we also provide excess energy to the surrounding community," Scandling explained. "Now these communities have energy access and they can charge their mobile phones, they can buy more phones, which in turn creates more customer demand on the telecoms side. There are other models too for anchor clients, say, a mining camp somewhere that is often off-grid. They're also going to bring in some off-grid electricity–the idea of this anchor client is that you can get stable revenue streams coming through an established business and that 'de-risks' your cash flows. So that's just on the topic of partnerships when we are looking at how to make rural electrification financially viable."

Sunlabob's strategy for continued international expansion rested mainly on its tried and tested method of winning international competitive bids and donor projects. However, the market-based model of building village mini-grids and off-grid rural telecom towers in Myanmar offered huge potential for growth. If implemented properly, it could improve the well-being and socio-economic status of rural communities not only in Myanmar, but around the world.

New models, new opportunities

Social enterprises such as Sunlabob understand that tackling poverty requires cautious optimism and perseverance. The solutions must be sustainable, and cannot rely solely on charity. That said, business alone is not the answer either. Partnerships must be deployed in order to spread risk while leveraging expertise and resources. Moreover, it should be kept in mind that such capital investment has to have a long-term horizon. It is also more than likely that any investments into economic infrastructure may not yield direct dividends to financiers.

Sunlabob has successfully overcome challenges faced by social enterprises such as the lack of financial support, a lack of skills among the locals, and mistrust by the community. It managed to secure donations from corporate sponsors and international donors, and succeeded in providing electrical coverage to 75 percent of Laos, aiming to reach 90 percent by 2020.

The company has also adapted to market conditions to scale up and venture into other countries. It decided to restructure its business model to include greater flexibility in funding sources; a base in Hong Kong to attract foreign investors; partnerships with companies that had strong local knowledge and expertise; and a move toward a market-based pricing model.

Sunlabob's experience in Laos and Myanmar, and its agility and willingness to learn and adapt, will go a long way in its pursuit for international expansion and profitability.

Ravi Chidambaram
is the President and Co-founder of TC Capital Pte. Ltd.

References

1 The National Archives, Office for National Statistics, "Population & Migration".

2 The World Bank guidelines states that the objective of International Competitive Bidding is to provide all eligible prospective bidders with timely and adequate notification of a borrower's requirements and an equal opportunity to bid for the required goods and works.

3 The World Bank, "Electricity to Transform Rural Myanmar", September 16, 2015.

Achieving Excellence in STRATEGY EXECUTION through Some Uncommon Practices

When good strategies fail in execution, it's time to consider some uncommon practices.

By Robin Speculand

Strategy execution is a relatively new management subject that started to gain traction as a unique field in 1999 following the seminal article in *Fortune* magazine on why CEOs fail. Authors Charan and Colvin stated that strategy fails not because of bad strategy, but because of bad execution.[1] The good news is that most leaders today appreciate the need to have a balance between strategy and execution. The question they are asking is: how do we achieve it?

For the last 15 years, my company, Bridges Business Consultancy Int., has been researching leaders' insights and thoughts toward strategy implementation (I use 'execution' and 'implementation' interchangeably). In 2002, our research showed that nine out of ten implementations were failing.[2] At that time, it was a wake-up call for leaders who supported the global movement towards a greater understanding on what it takes to implement strategy successfully. In our latest research we have identified that nowadays only two-thirds of implementations are failing. Although this is an improvement from 90 percent to 67 percent over the last 14 years, it still begs the questions: Why are we continuing to fail more often than we are succeeding, and what do leaders need to do differently?

We have identified some uncommon practices used by those who succeed. These practices are practical and focus on making things happen, rather than merely explaining *why* execution is important.

Less is more

When leaders have too many objectives on their agenda, they typically end up doing less, not more. They can become overwhelmed by the multiple actions they need to undertake. Thus more work ends up with less being done. Organisations that are dexterous in execution recognise this and limit the number of strategy objectives they focus on each year. According to Kathleen Eisenhardt of Stanford University, "There must be a certain balance to the number and type of goals and objectives: too many goals and objectives are paralysing; too few, confusing."[3] In 2015, Steve Easterbrook, the CEO of McDonald's, explained why revenues were declining and what had to change, "Our existing organisation is inefficient and lacks clear accountability. We need to execute fewer things better."[4]

Research has demonstrated that an excess of choices often leads us to do less. Sheena Iyengar and Mark Lepper, from Columbia and Stanford University respectively, conducted the 'jam experiment'[5] that involved an upscale grocery store displaying 24 types of jam for customers to view and purchase on one occasion, and only six varieties on the other occasion. It was found that only three percent of customers purchased jams from the selection of 24, while 30 percent of customers–that is, ten times more–bought jam from the selection of six. The same experiment was also tested for choices of chocolate and, once again the group that was offered six choices had a higher level of satisfaction than that offering 24.

Too many choices in execution lead to lower engagement and performance. The question arises thus: How many strategic objectives should a leader focus on each year? I recommend having five. This ensures everyone knows what is important and the actions to take. It also allows for better resource allocation and creates a focused organisation with a critical mass of effort. The other strategic objectives–those not included in the year's focus–should still stay in view and be addressed in regular 12-month cycles.

The magic of 90 days

There's something magical about a 90-day period in business. Actionable tasks should not take more than 90 days to complete. If an action has not been completed within that timeframe, then it was either too complicated to complete within that period, or might not have been important enough. If a task requires more than 90 days to complete it is advisable to break it down into smaller tasks.

The aim is to 'boil the pot' and not to try and 'boil the ocean'. By consciously ensuring that tasks can be completed within 90 days, leaders make actions manageable and they start to gain traction. Small, bite-size tasks are easier to achieve; it is also easier to monitor progress. Taking action in 90-day blocks also makes the long-term strategy realistic to the people responsible for execution, enables each team player to see how their work contributes to the wider strategy, and creates quick wins that are visible to all.

Adopt a framework

Leaders often return to their office after crafting the strategy without identifying a framework to guide them and their managers through the implementation journey. This leaves managers unsure of where to start, and can also result in them executing the strategy differently across business units and/or geographies. Time and resources are wasted in finding solutions, and even replicating research and methodology.

In contrast to crafting strategy, there are only a handful of tools and techniques available for executing it. Leaders should identify a framework for strategy execution that can be applied throughout the organisation. Some common frameworks include the Implementation Compass™ by Bridges Business Consultancy Int. and Kaplan and Norton's Execution Premium. For instance, the Implementation Compass is a framework that allows the leader to identify the right actions to take, and assess the organisation's implementation capabilities based on eight areas required for implementing strategy: engaging the people, sharing the biz case, constantly communicating, putting in place the right measures, aligning execution and culture, changing and innovating processes, reinforcing, and reviewing.[6]

> The aim is to 'boil the pot' and not to try and 'boil the ocean'.

Constantly communicate

After the strategy kick-off, leaders often err by reverting their focus to day-to-day operations (disregarding discussing strategy implementation), as they are held more accountable for short-term performance, which dominates their agenda. So discussion on the implementation of strategy dissipates with alarming speed.

When employees attend meetings, there is often no mention of the new strategy, no updates are provided, and no questions are asked. When discussion on the implementation dissipates, so does the interest among people. They resort to focusing on what is being addressed– the operational issues. Their execution intentions and actions fall by the wayside and, ultimately, the strategy fails.

A balance is required between discussing operations and strategy execution, and employees need to know that execution is constantly on the management's radar screen. We have identified that applying the discipline of constant communication has become a best practice among organisations that achieve excellence in execution. Leaders provide updates on various issues such as progress against the objectives, what is working and what is not, customer feedback, best practices, lessons learned, milestones achieved, and strategy deviations.

> In contrast to crafting strategy, there are only a handful of tools and techniques available for executing it. Leaders should identify a framework for strategy execution that can be applied throughout the organisation.

Abandon yesterday

In today's dynamic business environment, leaders can no longer plan the future as an extension of yesterday. They must design new strategies and execute them more frequently than ever before.

The fact is that, in the 1950s, the average tenure of an organisation in the S&P500 was 61 years, a figure that dropped to 18 years by 2013. In 1985, 35 percent of companies listed on the S&P were considered high risk (risk being based on the ability to achieve long-term stable earnings growth). This number rose to a whopping 73 percent in 2006, even prior to the Global Financial Crisis. By 2006, only 13 percent were considered low risk, compared to 41 percent in 1985. As agonisingly difficult as it is, we must be prepared to release the past and seize the future. This calls for a resilient operating model that can be adapted, modified, radically changed or abandoned, in response to a change in strategy.

ENCYCLOPAEDIA BRITANNICA: SEIZING MARKET OPPORTUNITY THROUGH CONTINUOUS STRATEGY EVOLUTION

Founded in 1768 in Edinburgh, Scotland, Encyclopaedia Britannica's first edition took three years to create. The company maintained market leadership for over two centuries with little change in its business model. Business peaked in 1990. Yet in the last 25 years, Britannica has had to reinvent itself several times and execute new strategies to survive.

In 1991, people started owning PCs and could buy CD-ROMs. Encyclopaedia Britannica responded to this change by creating its first CD-ROM in 1995 for US$1,200. Soon after, Microsoft fought back with its loss leader pricing strategy by launching Encarta, its digital multimedia encyclopaedia available in CD-ROM and later, in DVD format.

Britannica once again found its strategy obsolete. The company responded by launching Britannica Online in 1995–and then, Wikipedia arrived in 2001. Britannica was forced to redesign its business model yet again. Instead of competing with Wikipedia in terms of content, Britannica decided to focus on the editorial quality of its online encyclopaedia. Scholars around the world were engaged to review, revise and refresh content. The company developed a loyal customer base that was looking for reliable, quality information–and were willing to pay for it. Today, 500,000 households subscribe to Britannica Online, and the digital edition is updated every 20 minutes. Over the past five years, the company has seen 17 percent compound annual growth in its digital education services business and a 95 per cent renewal rate.[7]

Britannica has been successful not only because it responded rapidly to market changes and reinvented itself, but also because it successfully executed the changes in a fluid culture, and abandoned yesterday's business model.

To Do or Not to Do

Peter Drucker coined the term 'purposeful abandonment' in which he proposed, "The first step in a growth policy is not to decide where and how to grow...it is to decide what to abandon. In order to grow, a business must have a systematic policy to get rid of the outgrown, the obsolete and the unproductive."[8]

Part of achieving excellence in execution is telling people what to stop doing and empowering them to decide when it is appropriate to kill a project or task. Everyone has a 'to do' list; but one should also be aware of the need for a 'to stop' list of the actions that don't contribute to the new strategy. When Piyush Gupta launched the DBS strategy in 2011 he not only explained what had to be done, but also talked about the businesses that the bank was exiting because they were not aligned with the new strategy. As CEO of Procter & Gamble, Alan Lafley also turned around the company by narrowing down its focus to just four core businesses, and simultaneously creating, "a 'not-to-do' list including projects that were driven by technology rather than customer needs".[9]

Creating a 'to stop' list involves empowering employees to identify and eliminate work that has become obsolete or is not adding value. To make this happen, employees should be encouraged to present the work they want to kill off to their immediate supervisor and the leader of the specific business. When you empower your people to stop doing non-value adding work, they become more engaged, they are able to accomplish more in less time, and you are able to create the right conditions for achieving excellence in execution.

Everyone has a 'to do' list; but one should also be aware of the need for a 'to stop' list of the actions that don't contribute to the new strategy.

APPLE'S 'STOP LIST'

When Steve Jobs retuned to Apple as its CEO in 1997, he made a dramatic decision that shocked everyone from the frontline to Board members. He announced he was devoting all company resources to just four products and was stopping over 70 percent of hardware and software product development. This involved cancelling over 300 projects. He explained, "We believe in saying 'no' to thousands of projects so that we can really focus on the few that are truly important and meaningful to us."[10]

At the time, Apple was manufacturing dozens of Macintosh desktops, laptops and servers in a range of variations. The company was also designing and manufacturing lines of printers, digital cameras and other ancillary items. Very few of these products were making money. Jobs' decision focused the company's resources on developing only two consumer desktops and two portables. As a result, there were over 3,000 layoffs and profits sunk.

Explained Jobs, "We are shepherding some of the great assets in the computer industry. If we want to move forward and see Apple healthy and prospering again, we have to let go of a few things."[11]

The change in strategy was a stroke of brilliance, resulting in Apple's turnaround as it allowed the engineers time to design what would sell.

Review rhythm

Tracking and monitoring progress is an integral part of execution. The frequency of execution reviews is a key step in achieving excellence in execution and, unbelievably, most leaders don't spend enough time reviewing the execution. Our research reveals that 85 percent of organisations spend less than 10 hours a month discussing execution.[12]

Conducting regular reviews creates the review rhythm–a pattern and expectation that progress is checked. Coupled with the 90-day window to complete a task, this becomes the momentum behind the execution. It tells people that they are going to be asked on how they are progressing against the actions they have identified to take every 90 days, and allows for support and coaching. Organisations that excel in execution tend to broadly adopt the review rhythm outlined below (refer to Figure 1):

Weekly reviews, where leaders need to be asking their direct reports every week on what they are doing to contribute to execution.

Bi-weekly reviews across every business vertical to ensure the organisation has the discipline and is taking the right actions. It allows for immediate corrective action, support such as resource allocation, and reinforcement of the right actions.

FIGURE 1 Source: Bridges Business Consultancy Int.

Quarterly strategic execution reviews that involve top leaders and invited employees. It encapsulates the discussions and actions from the bi-weekly reviews across all the business verticals and provides a summary of the progress being made across the whole organisation. It may also identify flaws in the strategy that need to be corrected, and collectively examines the feedback from the bi-weekly reviews.

Annual leadership reviews are a learning opportunity to reflect on performance, share best practices and lessons learned, and embed changes. They bring the key players in the execution together and is leveraged to celebrate and share successes.

Make execution planning part of strategy planning

Leaders are responsible for decoding the execution challenge by pre-empting and outlining what needs to be achieved, and then guiding the organisation through the entire implementation journey. This means that the leaders need to know what is involved and required even before execution begins. Roger Martin, former dean of the Rotman School of Management at the University of Toronto, states, "It's impossible to have a good strategy poorly executed. That's because execution actually is strategy. Trying to separate the two only leads to confusion."[13]

Yet, leaders often exclude the execution plan in their strategy planning because they've been taught how to *plan*, not how to *execute*, and because they sometimes misjudge what is involved and required. It is advisable to postpone the launch of a strategy until one has developed a solid execution plan. Otherwise leaders find themselves struggling after the launch: What do they do first? Where should they allocate resources? Should they focus on communicating the new strategy? Do they need to provide new skills training? Should they put in place new measures? The uncertainty in being unable to answer these typical questions breeds discontent and lack of motivation. That in turn undermines any opportunity for the new strategy to gain traction.

Former CEO of GE, Jack Welch, put it succinctly when he said, "In real life, strategy is actually very straightforward. You pick a general direction and implement like hell."[14] Yet leaders need to know *how* to implement like hell.

A good strategy well executed transforms challenging, confusing and complicated tasks to engaging, enjoyable and achievable ones.

Achieving excellence in execution

Taking time to develop your execution plan doesn't dilute from strategy planning, as some leaders think, in fact it adds tremendous long-term value. The enriched conversation among the leadership results in:

- Further defining and refining the strategy for all leaders
- Stating what needs to be done in more detail to achieve excellence in execution
- Detailing the expected timeline of execution
- Clearly articulating the strategy outcomes
- Specifying individual responsibilities
- Starting the implementation journey with the right resources and capabilities
- Building buy-in and confidence across the organisation.

A good strategy that is well executed transforms challenging, confusing and complicated tasks to engaging, enjoyable and achievable ones. It decodes the ambiguity of execution, gives everyone focus, and dramatically increases the odds for success, especially when it is developed with the same intensity and energy as the strategy itself. It also helps to demonstrate progress: as tasks are accomplished and the to-do list shortens, teams begin to energise as they witness the realisation of long-term goals. Thus excellence in execution can be a differentiator in business—and the payoff can be tremendous.

Robin Speculand

is Chief Executive of Bridges Business Consultancy Int. and founder of the 'Implementation HUB' portal

The material for this article is extracted from his book 'Excellence in Execution–How to Implement Strategy', due for release in September 2016.

References

1 Ram Charan and Geoffrey Colvin, "Why CEOs Fail. It's rarely for lack of smarts or vision. Most unsuccessful CEOs stumble because of one simple, fatal shortcoming", Fortune, June 21, 1999.

2 Bridges Business Consultancy Int., "Bridges 10 Years Implementation Survey Results".

3 Kathleen M. Eisenhardt and Donald Sull, "Strategy as simple rules", Harvard Business Review, January 2001.

4 Hayley Peterson, "7 mistakes that led to McDonald's downfall", Business Insider, May 5, 2015.

5 Sheena S. Iyengar and Mark R. Lepper, "When Choice is Demotivating: Can One Desire Too Much of a Good Thing?", Journal of Personality and Social Psychology, 2000, Vol. 79, No. 6, 995-1006.

6 Robin Speculand, "Bricks to Bridges–Make Your Strategy Come Alive Paperback", Litt Lindden Design Associates, 2005.

7 Robin Speculand, "Innovation and Implementation Must Go Hand-in-Hand", 4Hoteliers.com, May 16, 2014.

8 Jeffrey A. Krames, "Inside Drucker's Brain", Portfolio Hardcover, 2008.

9 Scott Keller and Colin Price, "Five Questions That Should Shape Any Change Program", Harvard Business Review, December 2, 2011.

10 Adam Lashinsky, "The Cook Doctrine at Apple", Fortune, January 22, 2009.

11 Brad Stone, "Steve Jobs: The Return, 1997-2011", Bloomberg Business, October 7, 2011.

12 Bridges Business Consultancy Int., "Strategy Implementation 2016 Survey Results".

13 Roger L. Martin, "Stop Distinguishing Between Execution and Strategy", Harvard Business Review, March 13, 2015.

14 Gordon Pearson, "The Rise and Fall of Management: A Brief History of Practice, Theory and Context", Gower Publishing Ltd., 2012.

新加坡金字品牌奖
Singapore Prestige Brand Award 09
Winner, SPBA - Established Brands

The Moodie Report
DREAM 2015 STORE
Category: Confectionery
Winner: FNA International (Singapore Changi Airport)

THE COCOA TREES®

The World's **Premier Chocolates...** For Every Heart & Home

CHANGI AIRPORT T3, DEPARTURE SOUTH

CHANGI AIRPORT T1, DEPARTURE EAST

SUNTEC CITY

RAFFLES CITY

SINGAPORE • MALAYSIA • CHINA • HONG KONG • INDIA • TAIWAN • MALDIVES

FOCUS NETWORK AGENCIES (S) PTE LTD
103 Defu Lane 10 #06-01 FNA Group Building Singapore 539223
Tel: (65) 6858 1800 Fax: (65) 6858 1808 Email: enquiries@thecocoatrees.com

CHANGI AIRPORT • T1 #02-62 • T3 #02-27
DOWNTOWN • Raffles City #B1-43 • Suntec City Mall #02-383 • Harbourfront Center #01-16
• VivoCity #02-143 • Tanglin Mall #B1-19 • Jurong Point #B1-32

www.thecocoatrees.com • www.fnagroup.com.sg

A MEMBER OF
FNA GROUP INTERNATIONAL

Inspiring Innovation

How large organisations can leverage the digital advantage for innovation.

By Suraya Sulaiman and Azim Pawanchik

The digital world has permeated our lives in more ways than we would like to admit. Every day we hear of new apps that promise to make our life better, ranging from delegation of personal tasks to guiding us through downtown peak-hour traffic snarls and managing our personal budgets. Companies like Airbnb, Uber and GrabCar have creatively and radically changed how the service industry operates. We read using Amazon Kindle and Google Books, listen to music streamed from Spotify, and subscribe to Netflix or iflix to watch our favourite television programmes and movies. And these only begin to scratch the surface of what's available out there.

In their book *Exponential Organisations*, Salim Ismail, Yuri van Geest and Mike Malone discuss the rapid change in technological capabilities and computing. They focus on how much new software has built-in intelligent processes to create constant improvements through continuous feedback, how the Internet of Things is creating an information-connected nervous system of the world and how everything and anything can now be tracked, measured and act as a catalyst for change.[1]

Meanwhile, a recent article in *Forbes* talks about how digital technology is bringing search and information costs crashing down. Quoting Ronald Coase's paper on 'The Nature of the Firm' (1937), it argues that the purpose of a firm is to minimise transaction costs, especially search and information costs.[2] Therefore, combined with the ability to easily scale up operations, reach a much larger market segment and work with greater transparency, trust and empowerment, the digital economy has the potential to transform business landscapes and make new businesses feasible and lucrative.

> Combined with the ability to easily scale up operations, reach a much larger market segment, and work with greater transparency, trust and empowerment, the digital economy has the potential to transform business landscapes and make new businesses feasible and lucrative.

As we delve deeper into the who's who of the players in the digital economy, we realise that many of the oft-quoted companies in the digital space began life as start-ups. Hardly ever, or never, do we hear of this genre of companies emerging from a resource-rich, or high market cap, publicly listed company. The levels of investment and valuation that these companies are receiving have outpaced many of their competitors and industry incumbents. But should the digital advantage be solely the domain of the start-ups and unicorns? And what are the implications of this for large corporations and institutions? While not being ones to espouse that large organisations should behave like start-ups, we consider how they can benefit from inculcating the dynamism and agility of start-ups to spur innovation and re-invigorate themselves through embedding digital elements and paradigms in their strategy.

The digital economy: Evolution or revolution?

Former CEO of Barclays, Antony Jenkins, recently discussed how a series of Uber-style disruptions could impact the banking industry: "The incumbents risk becoming merely capital-providing utilities that operate in a highly regulated, less profitable environment and is a situation unlikely to be tolerated by shareholders."[3] He was elaborating that the new wave of tech-savvy start-ups that can do things better, faster and cheaper than the big banks will disrupt traditional businesses like lending, payments and wealth management. He warned of the impending pressure incumbent banks face to implement new technologies at the same pace as their new set of rivals. Similar thoughts have also surfaced in many articles about the 'Uberisation' of the economy and the 'Uberisation' of everything, where very few sectors or industries appear safe from disruption.[4]

Asian organisations appear to be well poised to adopt a digital approach to engaging their employees, considering that

Asia has the largest population of Internet users in the world.[5] The Digital Evolution Index published in the *Harvard Business Review* categorises Singapore, Hong Kong and South Korea as 'Stand Out' countries as they have displayed high levels of digital development in the past and are pegged to continue on an upward trajectory.[6] Following the 'Stand Out' countries are the 'Break Out' countries, which have the potential to develop strong digital economies. Asian countries in this category include Malaysia, Thailand, Vietnam and China.

As the digital tsunami is embraced in the personal space, organisations, however, seem to lag behind in creating a similar ecosystem. While a few organisations may have the Internet of Things in place, the Internet of Talents is clearly absent from many. Silos–divisional or functional–are as strong as ever. Hierarchy and power distance still prevail and real-time performance tracking remains obscure.

Considering the rapid change in market dynamics, organisations need to constantly ensure that their businesses are agile enough to proactively innovate on all fronts. Gone are the days when the strategy team or top management had all the answers. The digitally empowered organisation of today leverages the collective intelligence within the entire company to identify key areas of focus and seeks out fresh solutions to the challenges faced. But are our companies not leveraging the masses of talent they have at their disposal?

Socially styled tools, which systematically harness insights and ideas from within the four walls, should be provided to digital-ready employees to contribute and be heard. Innovation management software, such as those offered by Hype and Spigit, function to simultaneously democratise decision making and increase transparency, both of which ultimately impact cultural issues such as hierarchy and silos within the organisation. More importantly, digital platforms become crucial to enhance employee engagement, attract talent and ultimately, increase employee retention.

> As the digital tsunami is embraced in the personal space, organisations, however, seem to lag behind in creating a similar ecosystem.

Innovating innovation

Should organisations wait to be 'Uberised' before they start looking for new sources of growth and value creation, or should they be starting now? Further delays could mean a loss of opportunities and first-mover advantage. We believe that organisations don't have to abandon everything that they are currently doing. Instead, they need to explore how they could harvest the current digital paradigm to find better ways to innovate–in short, innovate innovation itself. Organisations need to rethink why they are innovating, who is responsible and accountable for innovation, where and how they should innovate, and how the innovation budget should be allocated and managed.

WHY IS THE ORGANISATION INNOVATING?

It is a given that an organisation needs to innovate to ensure sustainable growth, profitability and high performance. How it achieves this depends on the organisation's overall goal, operating paradigm and long-term vision. The rationale for innovating can range from maintaining market position, entering a new market, gaining access to unique resources or materials, meeting regulatory requirements, acquiring talent, and enhancing brand value to simply meeting the expectations of diverse stakeholders.

WHO IS RESPONSIBLE AND ACCOUNTABLE FOR INNOVATION?

Innovation can't be left to a few within the company. In the past, innovation was assumed to be the role of R&D, engineering or marketing. Recent years have witnessed the rise of the Chief Innovation Officer and the setting up of innovation units. This is seen in Singaporean and Malaysian banks such as DBS Bank and Maybank, respectively, as a means of dealing with the threat of Fintech start-ups and the rise of competition from current tech giants such as Alibaba's Alipay, Tencent's WeBank

> Innovation management software, such as those offered by Hype and Spigit, function to simultaneously democratise decision making and increase transparency, both of which ultimately impact cultural issues such as hierarchy and silos within the organisation. More importantly, digital platforms become crucial to enhance employee engagement, attract talent and ultimately, increase employee retention.

and Apple Pay. While organisations benefit from having champions who have the presence and power to help drive and integrate their innovation strategy, innovation process and innovation culture–they alone cannot be responsible for driving the entire revitalisation.

One of the core objectives of these champions is to get as many employees as possible to contribute to innovation. In our HR InnovAsian Report 2014, a study of innovation practices within Asia, we reveal that only 10 percent of respondents from IT and Finance and Accounting, and 20 percent of respondents from HR strongly agree that they are involved in innovation within their organisation.[7] Meanwhile a lack of leadership and clear direction on where to innovate are seen as the biggest barriers to innovation.

We believe that many employees do want to be involved in helping their companies innovate. However, the challenge lies in getting everyone involved in the innovation process in a cost effective and productive manner. This is where organisations can tap the digital readiness of employees by providing them with a digital innovation platform to capture competitive threats and innovation opportunities from across all levels, functions and divisions. Silos and hierarchies can be broken down and innovative performance can be tracked and rewarded. Analytics can be applied to predict which area the organisation should be focusing on. Meanwhile, gamification elements can be applied to engage users of the digital platform. Employees are typically already familiar with these tools as they are conversant with the various social media platforms.

WHERE SHOULD THE ORGANISATION INNOVATE?

In many organisations the typical focus of innovation efforts is in the creation of new services, products or technology. We believe that the rise of the digital economy opens up new areas for innovation, ranging from innovation in leadership and management, HR, IT, procurement, legal, and even finance.

Leadership and management

The digital economy is not about technology alone, but relies on trust and empowerment between the service provider and its customers. Airbnb works because of the trust that exists between the property owner and the person staying in the property. In an organisation too, management needs to build the necessary tools and communication channels to develop trust and empower employees. Leadership support and trust are collectively deemed the most important element for employees to be innovative in the workplace.[8] At Logica, a U.K.-based IT and management consultancy company, CEO Andy Green launched a

> While organisations benefit from having champions who have the presence and power to help drive and integrate their innovation strategy, innovation process and innovation culture—they alone cannot be responsible for driving the entire revitalisation.

GETTING A LARGER POOL OF INDIVIDUALS INVOLVED IN INNOVATION

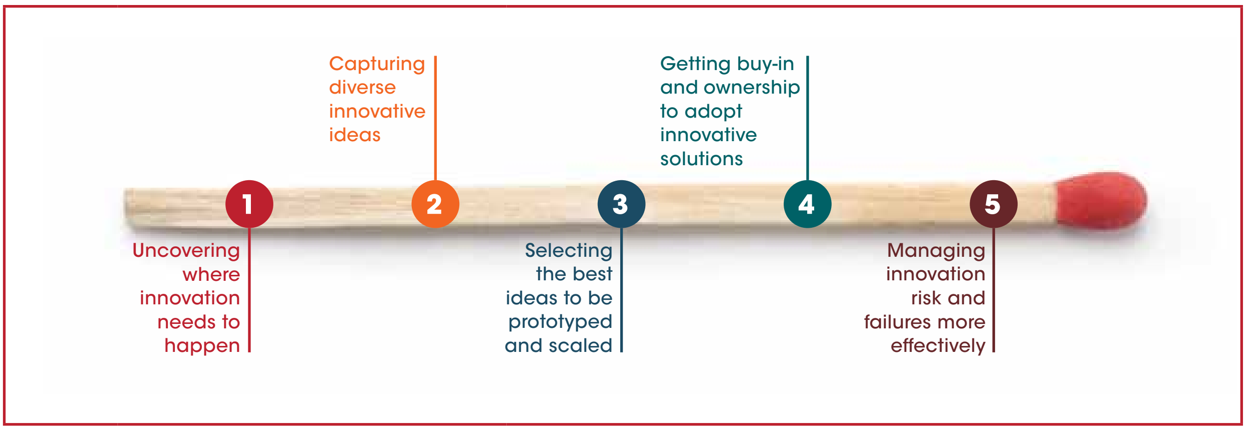


FIGURE 1

company-wide initiative assigning one person from each department (finance, HR, and so on) to be an 'innovation catalyst', documenting new ideas discussed at meetings and following up on them.

Human resources

HR plays a critical role in making innovation happen and driving company growth. According to a report released by the World Economic Forum, "Talent, not capital, will be the key factor linking innovation, competitiveness and growth in the 21st century."[9] It is easy to understand why HR is instrumental in helping to unleash innovation in an organisation. Talent runs an organisation–it is essentially the gears and brains of the organisation. In the InnovAsian study mentioned earlier, 550 human capital practitioners in three countries (Singapore, Malaysia and Indonesia) disclosed that the areas they found needed the most urgent innovation are employer branding, performance management and career progression/succession planning. HR thus needs to move away from focusing on an administrative role to transitioning to a more strategic role of driving innovation within the organisation.

Supply chain and procurement

Supply chain and procurement can be involved in exploring new suppliers that can significantly expand the capability of the organisation's technologies or reach, or help source new value chain partners and ways to develop new solutions. Procurement should not be focused purely on procedures or streamlining processes. With the advent of open innovation and crowdsourcing, procurement should play a leading role in ensuring that processes are in place to manage these external collaborations.

Thomson Reuters, for instance, wanted to improve its Web of Knowledge online tool through customer-driven product insights. For this, it turned to Innocentive, a company that crowdsources innovation solutions, to create an open call for ideas, followed by a challenge to develop the winning solution. The challenge garnered over 900 participants with almost 200 submissions. The winning solution, which involved improvements in data visualisation and an elegant app, was tested, scaled and implemented quickly without a heavy demand on in-house resources. The breadth of this project would not have been possible had Reuters undertaken the traditional process of procuring solutions.

Legal

While the legal department plays an important role in protecting the organisation's internal intellectual property (IP), it should also look into devising guidelines that would make it feasible and easy to collaborate with external parties. Ogilvy & Mather, one of the largest international advertising, marketing and public relations agencies in the world, set up innovation units in Singapore and Beijing in 2014. Known as K1ND (OneKind), each innovation unit works more closely with external parties, co-invests with its clients on product development, and shares IP that has been created.[10] Hence, legal needs to find ways to make such collaboration easier, faster and more efficient.

Finance

The finance department allocates budgets for innovation projects to take-off, or ideas to be prototyped. Traditionally, employees view finance, the purse strings of the organisation, as more of a hindrance to innovation. Oftentimes, finance's focus on compliance, risk reduction, and maximising shorter term returns seems to limit an organisation's ability to explore and innovate.

Professional global accounting bodies have begun to outline and educate on a range of accounting approaches that incorporate a wider range of financial measures that are pertinent to innovation by way of measuring and recognising intangibles. Integrated Reporting (IR), for example, aims to improve the quality of information that companies provide to investors, making it more holistic and meaningful.[11] With IR, there is an incorporation of intangibles and various kinds of capital (intellectual capital, human capital, etc.), in addition to just traditional financial capital (such as profits), in the company accounts.

An expansion of the responsibility of the finance department would help the company manage and take on risks in innovation. This would see it set aside funds for prototyping and innovation experiments, as well as outline reasonable criteria for an exploratory, innovative project to obtain progressive funding. It would also aid staff leading innovation projects to build a clearer and more convincing case for boards/investors, with an impartial but not risk-averse view in providing risk projections and accounting of the various forms of return on investment in innovation, and not just direct traditional financial metrics.

Information technology

IT now forms the basic infrastructure for the lines of communication within any organisation in the same way a country designs and lengthens the reach and efficiency of its roads and highways. A powerful function, IT can facilitate innovation in many ways. The role that IT can take on includes development, acquisition and deployment of platforms to make innovation happen better within and outside the organisation, by enabling more productive and focused internal and/or external collaboration.

This would include providing mobility solutions and platforms that work across various types of devices such as smartphones and laptops, by recognising that talent is increasingly in disparate locations. On-the-go 24/7 cloud-based services can now also be employed to manage risks and costs, while ensuring adequate reliability in piloting new digital innovation tools or services. In addition, IT plays a crucial role in harnessing the tech community in developing new solutions as well as spearheading manageable, lower risk pilot projects for prototyping.

HOW SHOULD THE ORGANISATION INNOVATE?

The familiar approach for large organisations to innovate is to build proprietary capabilities within the organisation. However, with the advent of platforms and tools, innovation can be opened to the outside world to allow a fresh injection of ideas from a varied cohort. Open innovation and collaborative innovation are new practices that can be adopted by organisations. The key is to prepare the structure (procurement policies, legal frameworks, etc.) and mindset of the people, to be able to assimilate such innovation, and then launch it quickly.

Of late, the banking sector has adopted this in a big way. Barclays has begun sponsoring start-ups and working with blockchain technology–the technology that underpins Bitcoin–to try and improve payments services to customers. Closer to home, Singtel, through its wholly-owned subsidiary, Innov8, has set aside an initial fund of S$200 million to focus on investments in technologies and solutions that could potentially lead to quantum changes in network capabilities, next generation devices, digital content services and enablers to enhance the customer experience. Innov8 works closely with innovators, developers, government agencies, R&D labs, and capital providers to bring these technologies and solutions to the various markets where the Singtel Group operates. Across the causeway in Malaysia, Maybank Group embarked, just last year, on a search for 20 start-ups from the ASEAN region. The successful start-ups will undergo a three-month on-boarding and pilot testing phase within the Group that is intended to validate the feasibility of adoption and implementation of their ideas.

The destination, not the journey

We are not so sure if disruptive technology allows businesses the luxury of enjoying the journey rather than the destination, to quote Ralph Waldo Emerson. It's probably more of a 'fasten your seat belts' moment. The digital economy continues to grow rapidly in tandem with the economic landscape in which businesses operate; and in many cases, it is indeed shaping the economic landscape. Many organisations run the risk of being disrupted and losing their competitive edge should they maintain existing traditional methods of conducting business. This challenge should thus be seen as an opportunity to explore new areas of growth. Adopting the digital paradigm and the 'Uberisation' concept will enable organisations to expand their engagement with all stakeholders, empowering them to tap into a vast number of ideas that are relevant to both, business growth and sustainability.

Suraya Sulaiman
is Executive Director of Innovation Culture and Capability at Alpha Catalyst Consulting

Azim Pawanchik
is Managing Director of Alpha Catalyst Consulting

References

1 Salim Ismail, Yuri van Geest, and Mike Malone, "Exponential Organisations: Why new organisations are ten times better, faster, and cheaper than yours (and what to do about it)", Diversion Books, 2014.
2 Greg Sattel, "The One Thing that Marketers don't seem to Get About the Digital Economy", Forbes, January 15, 2016.
3 Oscar Williams-Grut, "Ex-Barclays CEO: Banks are about to have an 'Uber moment'–and it's going to be painful", Business Insider, November 26, 2015.
4 Sunny Freeman, "'Uberization' Of Everything Is Happening, But Not Every 'Uber' Will Succeed", Huffington Post (Canada), April 1, 2015.
5 Internet World Stats, "World Internet Usage and Population Statistics".
6 Bhaskar Chakravorti, Christopher Tunnard, Ravi Shankar Chaturvedi, "Where the Digital Economy Is Moving the Fastest", Harvard Business Review, February 19, 2014.
7 Suraya Sulaiman, Azim Pawanchik and Aina Zahari, "The HR InnovAsian Report 2014", Alpha Catalyst Consulting, June, 2015.
8 Ibid.
9 World Economic Forum, "The Human Capital Report 2015", 2015.
10 Elizabeth Low, "Can you really institutionalise innovation?", Marketing, April 30, 2015.
11 Martin Brassell and Benjamin Reid, "Innovation, intangibles and integrated reporting: a pilot study of Malaysian SMEs", Association of Chartered Certified Accountants, June 2015.

The Frugal Innovator

Creating Change on a Shoestring Budget

By Charles Leadbeater

The world needs innovation that is lean, simple, clean and social.

When we think of innovation, Apple Inc. is one company that immediately comes to mind. Its products are viewed as the epitome of Silicon Valley design-led innovation. When I look at an iPhone, it talks to me, "You may be balding, middle-aged and old-fashioned, but if you buy me, you *will* look cool!" Companies like Apple look at innovation as a competitive undertaking, using new technologies and unfettered original ideas to open up new needs and markets, and realise their limitless market possibilities. While this is certainly a powerful way to innovate, innovation doesn't always come from pure freedom and blue ocean opportunities.

New, powerful solutions can arise out of limitations, tensions and conflicts. Frugal innovation is one such model that thrives on constraints, creating timely and relevant solutions for socio-economic challenges that plague the world today. These solutions make optimal use of limited resources to create better, more successful and sustainable ways to live. Be it the provision of clean water, energy, affordable housing, healthcare or basic education, resource scarcity and rising costs give frugal innovators the opportunity to think radically and challenge conventional wisdom in providing socially beneficial solutions.

This article provides an insight into what promises to become a worldwide movement as large companies in developed economies start attuning themselves to learn from entrepreneurs in the developing world, who are coming up with uncommon solutions to common challenges.

Impetus to frugal innovation

This kind of bottom-of-the-pyramid innovation is seen more in developing countries, where teeming millions are looking to fulfil their most basic amenities, and find a livelihood to make ends meet. The combination of rising aspirations and tight constraints leads to frustration, which in turn is the motivation for innovation.

Frugal innovation creates better outcomes for more people, while using fewer resources, by developing out-of-the-box solutions for social and economic problems. One of the key characteristics of frugal innovators whom I have worked with is their ability to use the constraints

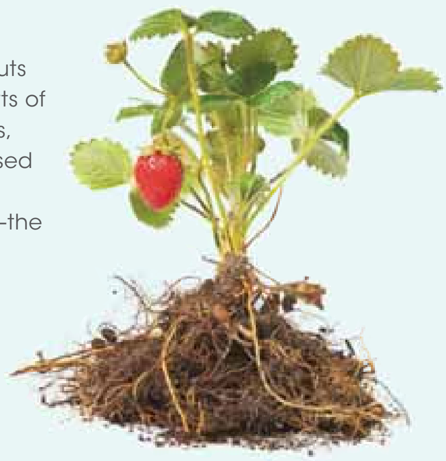
The combination of rising aspirations and tight constraints leads to frustration, which in turn is the motivation for innovation.

THE STRAWBERRY EFFECT

In 1995, Madhav Chavan started a movement called Pratham (which means 'first' in Hindi), an NGO that provides pre-school education to children living in the slums in India. Chavan tackled two major constraints of *space* and *talent* by creatively drawing on community resources. Under Pratham's Balwadi (pre-school) programme, groups of children gather in a local temple, under a tree, or in the home of an instructor, and engage in basic skills-building such as numbers, shapes, colours, stories, poems and songs. There is no rent expense, the location is conveniently situated in the neighbourhood, and learning materials are provided by Pratham.

The teachers also come from the community—young local women who have completed their secondary education are trained in 12 half-day sessions (not too lengthy or expensive) to set up and run the Balwadis. The women are eager to work as teaching is seen as a vital route to independence and social mobility. They recruit the children and charge a nominal fee of about 7 to 15 cents to cover their costs, which is affordable and agreeable to the families.

The simplicity and localisation of Chavan's model makes it easy to replicate and widen its reach. Much like the strawberry plant that puts down its roots as its grows and draws its resources from different parts of the soil, Pratham's Balwadis also draw resources (teachers, materials, location) from where they are, rather than depending on a centralised resource point. In effect, the Balwadi system taps into the lean principles of decentralisation and embraces efficient resource use—the idea being to make do with whatever resources are available.



An evaluation of Pratham's work shows that the model has had a remarkable effect on improving continued education and achievement than, say, the presence of computers and technology.

that they face as a means for advancement, rather than seeing them as hurdles and hindrances. 'Re'-thinking doesn't always mean coming up with a brand new idea or invention that is resource-intensive and costly. It can be achieved through modest systems that recycle, reuse, repurpose and remediate. Frugal innovators follow four common design principles to create these solutions: lean, simple, clean and social.

Lean: Minimising waste

Frugal solutions tend to be lean in the traditional sense. Toyota is a classic example of a company that had to reinvent its production model in the face of tight constraints. In 1949, Toyota was a fledgling and fragile company producing a few thousand cars a year, compared to Ford and General Motors in Detroit, that were rolling out millions off the production lines. As one of the smallest car makers in the world, Toyota had to find a way of working in small batches, which led it to pioneer lean techniques that relied on a skilled yet flexible workforce, just-in-time inventory management and flexible machinery.

Today, some of the most interesting and innovative solutions to emerging market healthcare needs are derived from lean manufacturing solutions. The Narayana Health (NH) hospitals in India are a case in point. Launched in 2000 by cardiac surgeon Devi Shetty, NH's mission was 'to provide high quality, affordable healthcare services to the broader population in India',[1] NH today spans a network of 57 facilities with 5,600 operational beds, where doctors perform cardiac surgeries (among other procedures) at a fraction of the cost available in India or elsewhere in the world. A heart operation at NH costs between US$2,000 and US$5,000, as compared to US$20,000 to US$100,000 in the United States.

NH applies the disciplines of lean manufacturing and total quality management to drive continual, incremental improvements in performance. While the quality of care is maintained, It takes a lot of good design thinking and saying "no" to come up with a simple, yet effective and innovative, solution.

costs are kept low by cutting out expensive and cumbersome procedures, relying on digital X-rays rather than the more high-priced films and maximising usage of laboratory machines, X-rays and scanners.

Much like a Japanese car factory, NH is modelled on a continuous flow process. About 24 open-heart surgeries and 35 bypass operations are conducted daily, more than eight times the Indian average. Efficiency levels are maintained as patients are seamlessly streamed in and out of operation theatres with surgeons focusing only on the surgery and leaving other staff to complete the paperwork and prepare patients for pre- and post-operative care.

The social mission helps to motivate doctors who do a better job regardless of their compensation–they are paid a fixed salary, so the average costs fall when a doctor performs more procedures. Through a hybrid pricing model and cross-subsidisation, NH is able to offset the losses incurred from treating those that cannot afford the procedures. By creatively weaving in keen pricing strategies with low-cost lean techniques and economies of scale, Shetty has created a business that makes money, while offering superior quality services to the poor population of India at a highly subsidised price.

Another example of lean platform innovation is the U.S.-based Udacity, an online teaching start-up that offers vocational training in software skills such as mobile programming, data analysis and web development. Udacity's business model aims to widen access to education while lowering costs. Through massive open online courses, known as MOOCs, Udacity reaches out to tens of thousands of students who learn from a single teacher. It offers certified 'nano degrees' for discrete, highly structured professional courses that develop skills which are in high demand in the IT industry. The nano degrees cost US$200 a month and Udacity's cost per student is a mere 62 cents.

Simple: Easy to use and replicable

Another characteristic of frugal innovators is that they take great care to ensure that their design solutions are simple. To maintain simplicity, one has to think upfront what features are most important–giving people what they most want–and understanding what can be reduced or hidden. Cluttering a solution with extraneous features adds to the cost without delivering substantial additional value to the user. When innovation takes place in the absence of stringent resource constraints, the easiest way to build a new solution is to add some stuff, and then add some more stuff, and before you know it, you have quite a complicated solution because you are innovating in an ad hoc way. In fact, it takes a lot of good design thinking and saying "no" to come up with a simple, yet effective and innovative, solution.

An example of simple innovation can be seen in 'Échale! a tu Casa' ('let's build a house'), a movement that aims to tackle Mexico's housing problem for the base of the pyramid, through assisted self-building housing options for and by the community. The programme offers each participating family all the necessary materials and training to build a two-bedroom home for themselves, combined with low-cost financing options.

A key innovation that allows the self-build programme to work effectively and cheaply–and moreover keeps it simple–is the invention of an earth block brickmaking machine. The machine is small enough to fit in a truck and can be driven and unloaded at the place where the houses are to be built. The mechanics are simple: ordinary dirt (as opposed to cement) is shovelled into the machine along with some sand and water. The dirt is formed into moulds using a gas-powered compression system. A lever is pulled and bricks come out at the other end. The bricks take a couple of days to dry before they can be used for house-building (refer to Figure 1). Typically, a village can produce enough bricks in three days to build ten two-room houses.

The earth block brick making machine is an excellent example of a simple product which is intuitive to use and is being put to a social cause. It provides a cheap and easy solution using a free raw material for villagers who would otherwise be unable to afford bricks from the market. This simplistic solution, which may seem marginal at first, helps tackle one of the biggest basic problems that cities all over the world face today.

While mud bricks may not endure in the humid climate of Southeast Asia, another 'simple' initiative is seen in the Philippines–'8990' is a low-cost housing initiative started in 2002 by a group of builders who wanted to do something for society. Its business model is based on a pre-cast technology whereby a single house is 'clicked' together and built in just eight to ten days. The building project has low materials and labour cost, and high quality control. Much like ¡Échale!, the 8990 initiative is also a complete housing solution adapted on the basis of locally available resources, and includes land, financing, building design and materials. In 2013, 8990 was listed on the Philippine Stock Exchange.

Earth Block Brick Production Machine

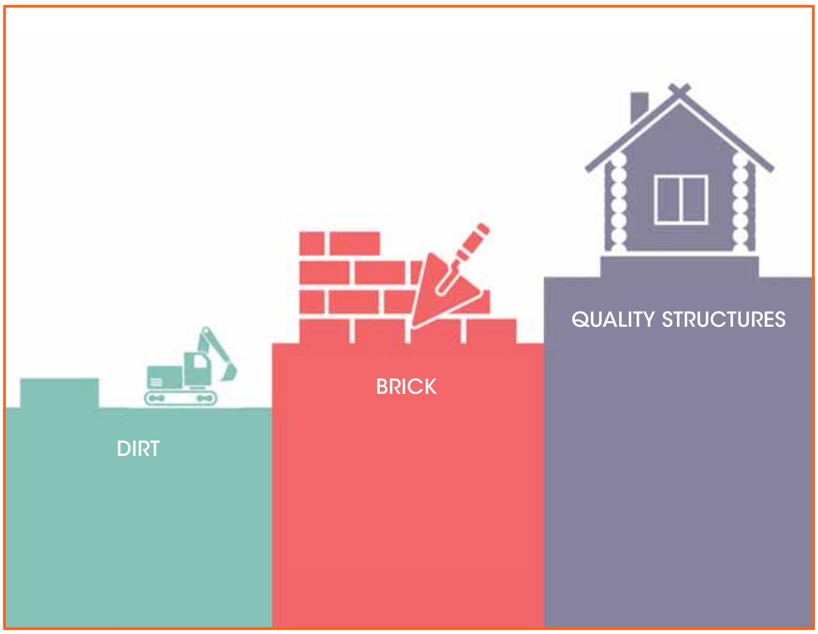


FIGURE 1 Source: Dwell Earth

Simplicity in innovation can also extend to sectors that are often seen as complex, such as financial services. Kenya's M-Pesa, one of the largest mobile-enabled money transfer systems in the world today, works on simple, user-friendly principles. Registering for the service on a mobile phone takes all of 30 seconds, and the money transfer takes but another minute. This innovation has proved useful not just for the poor people of Kenya, but for all Kenyans.

Clean: Recycling, restoring and renewing

Even as people in the developed world worry about the impact of climate change, many more in the developing world worry about gaining access to the most basic of amenities, such as electricity and water. For these societies, life shuts down at sunset and the digital world seems a distant dream. While the industrial era seems to have bypassed these millions of people, the old systems that use non-renewable energy sources are now seen as costly, cumbersome and environmentally damaging.

So the innovation challenge is to provide cheap and clean electricity to the hundreds of millions in the poorest parts of the world–by definition, it calls for frugal innovation. One of the most instructive solutions is found in India, where 480 million people lack reliable access to electricity. Husk Power Systems (HPS), the brainchild of Indian engineer Gyanesh Pandey, creates mini-utilities that serve a group of villages using a mini power plant powered by discarded husks from rice production. A single mini power plant is capable of delivering electricity to hundreds of homes for six to eight hours a day, which is adequate to power light bulbs, fans, refrigerators, televisions and charge mobile phones. The cost per household is US$2 to US$4 per month.

HPS leverages principles of frugal innovation, namely to reinvent, recycle and reuse resources, technologies and ideas. Using recycled material to power a recycled technology, HPS' installation costs less than half that of other renewable power systems. HPS is truly an example of how a lean, simple and efficient system can also be clean.

In yet another example, in the early 1960s, Singapore's survival was threatened by water shortages of the kind that now overshadows many cities of the world.

I have found that 'with' solutions are often more powerful, efficient, effective and innovative.

As the economy grew and the land traditionally taken up for clean water catchment on the small island became commercially more valuable, the country's water infrastructure was unable to keep up with the demand. Singapore went through three phases of clean solutions to ease the water crisis. The first strategy was to focus on rainwater whereby the entire city-state was turned into a water catchment system feeding rainwater into a network of localised reservoirs and tanks hidden beneath school playgrounds and expressway flyovers, all connected through a computer-controlled system of tunnels and pipes.

The second phase was NEWater–a strategy launched in 2002 to recycle industrial water. Within ten years, NEWater was fulfilling 30 percent of Singapore's water demand, halving the need for reservoir capacity. And finally, tapping into its abundance of seawater, the country also invested in one of the world's most sophisticated desalination plants, which uses reverse osmosis technologies that allow fresh water to be produced at low temperatures, with minimal energy and limited side-effects.

Social: Shared solutions and experiences

Frugal innovation systems are social because they mobilise communities and create value through empowerment and efficiency. An example is seen in South Africa, where the HIV virus continues to plague the health of women and that of society. In 2009, 300,000 women were diagnosed to be HIV+. In Europe and the U.S., one child is born HIV+ everyday, compared to 1,100 in Africa. Thanks to medical advances, the treatment of HIV is now available to pregnant women and there are drugs that can prevent the transmission of the virus to the baby. So Mitch Besser, an American HIV specialist, was puzzled why mothers in South Africa would not take the drugs they needed to extend their own lives and save their babies from the virus. It became clear that the social stigma associated with AIDS was so great that they would not opt for treatment.

The problem was thus a social one–you cannot deliver a solution to a mother with HIV the way that DHL delivers a parcel to your door. Besser came up with a simple solution: Mothers-2-Mothers (M2M) used a mentoring system through which HIV+ mothers-to-be were offered support by another mother who was also HIV+. The mentor mothers offered emotional support, practical tips and social know-how, and helped the newly diagnosed cope with societal prejudices. The M2M case shows that sometimes medical, scientific and economic solutions alone are not sufficient, we need social solutions–those developed by the community, for the community. Like others I have cited, this solution too illustrated the simple qualities inherent in frugal solutions.

I have found that 'with' solutions are often more powerful, efficient, effective and innovative. The more social the innovation, the more efficient it is and the social dividend generated from it engendered benefits beyond the economic. Convivial technologies generate wider, more lasting and multiplying benefits. They produce a greater dividend through trust, sharing and relationships, and generate not just efficient transactions, but also positive externalities and broader social benefit.

The frugal recipe

At the core of frugal innovation are the four linked design principles; lean, simple, clean and social. Through years of trial and error and experimentation, frugal innovators have proved to the world that simple, shared, social solutions can work and can be profitable. Moving forward, these principles should be at the heart of innovation. Agreeably, frugal innovation will not be the only approach to innovation in the future. But it will become increasingly more important because it offers a way to create a successful, inclusive and sustainable world. Make no mistake: the frugal wave is coming. It is time to start learning how to surf it.

Charles Leadbeater
is an author and leading authority on innovation and creativity

Reference

1 "NH identity", Narayana Health website.

Singapore's Vision of a Smart Nation

Thinking big, starting small and scaling fast.

With a population of 5.4 million and land area of 718 square kilometres, 94 percent of Singapore's population live in high-rise apartments, of which, 82 percent dwell in public housing.[1] As an ultra-dense city-state, effective and innovative urban development is a social and economic imperative intricately intertwined with Singapore's competitiveness and quality of life. Harnessing information and communications technology (ICT) is not only essential to achieving this, but also serves as a template for answering some of the global challenges faced by urban centres around the world–particularly in regard to economic development, social cohesion, better city administration and infrastructure management.

Governments around the world are recognising the opportunities and benefits associated with smart city initiatives as a means to address denser, more diverse and growing urban populations. Singapore is unique in that it has been engaged in what could be considered 'smart city initiatives' since the 1980s. Its smart nation model places

Governments around the world are recognising the opportunities and benefits associated with smart city initiatives as a means to address denser, more diverse and growing urban populations.

By Foo See Liang and Gary Pan

people at the centre of four enablers: governance, manpower, partnerships and technology. Lessons from Singapore's experience in national ICT planning, as well as its current endeavours to create a smart nation, may serve as important guidelines for urban policymakers and practitioners in countries and cities around the world.

What is a smart city?

There are many interpretations of a smart city. The European Commission articulates a smart city to be a "...place where the traditional networks and services are made more efficient with the use of digital and telecommunication technologies, for the benefit of its inhabitants and businesses...The smart city concept goes beyond the use of ICT for better resource use and less emissions. It means smarter urban transport networks, upgraded water supply and waste disposal facilities, and more efficient ways to light and heat buildings. And it also encompasses a more interactive and responsive city administration, safer public spaces and meeting the needs of an ageing population...In smart cities, digital technologies translate into better public services for citizens, better use of resources and less impact on the environment."[2]

Smart cities require a certain level of sophistication in ICT infrastructure, standardised network processes, and shared goals amongst public and private stakeholders. A fundamental pillar of building any smart city is intelligent and integrated city planning, where technology is incorporated into a city's physical, social and business infrastructure. This requires strong alignment among stakeholders, which may be contingent, in many cases, on long-term political will. The Singapore approach underscores the importance of the government taking the lead to position the country as a leading global city with a corresponding high quality of life, by effectively formulating and executing new smart city initiatives.

Singapore's Smart Nation platform

The first national IT plan was formulated in 1980. Since then, six master plans have been executed to bring Singapore closer to achieving its vision of becoming an 'intelligent island'. The 1980 inaugural infocomm master plan focused largely on a national computerisation programme for government agencies. Subsequent programmes concentrated on extending computerisation and connectivity to the private sector, while also connecting people–and the island itself–to the broader world. These programmes brought significant economic benefits and gains in the efficiency of service delivery. In 2015, the government announced the 'Smart Nation Initiative' with an aim to see Singapore become the world's first smart nation by 2025, and also further enhance networked computerisation capabilities in order to remain globally competitive.

Singapore's notion of a smart nation is based on its ability to gather data, interpret it, glean insights and then translate those insights into meaningful action. The Smart Nation Platform (SNP), spearheaded by the Infocomm Development Authority (IDA), Singapore's ICT development agency and regulator, is thus built around three focus areas: *Connect, Collect, and Comprehend* (refer to Figure 1). It will further enhance Singapore's capabilities in pervasive connectivity by building new and scalable infrastructure along with common technical architecture to support a smart nation ecosystem.[3] The plan includes developing a Smart Nation Operating System (SN-OS), which can be thought of as being equivalent to a computer operating system. It seeks to

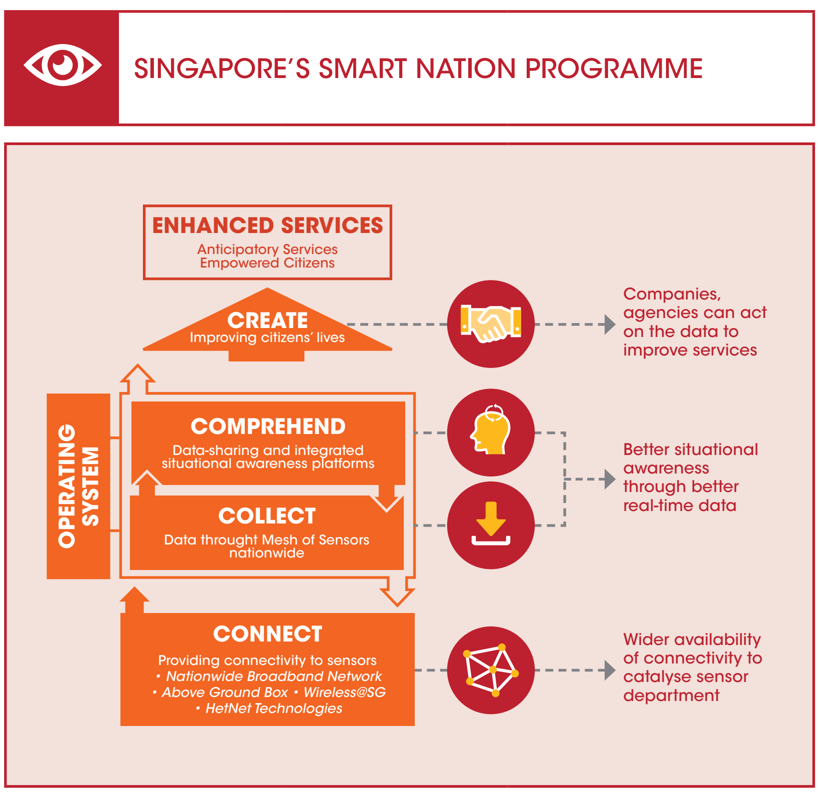


FIGURE 1 *Source: IDA Singapore, Media Fact Sheet: Smart Nation Platform. April 2015.*

Singapore's notion of a smart nation is based on its ability to gather data, interpret it, glean insights and then translate those insights into meaningful action.

connect sub-systems of the nation to facilitate the creation of an integrated common picture for better situational awareness. For example, given Singapore's growing ageing population, SN-OS aims to implement user-friendly sensors in the homes of the elderly. Caregivers and healthcare providers can then monitor the aged and respond better, given the advanced knowledge captured by the system.

A fundamental prong of the SNP is the development of better situational awareness through real-time data collection and efficient sharing of collected sensor data. In October 2014, the Singapore government announced that around 1,000 sensors would be installed throughout the island to track anything from air quality and water levels to public safety. The sensors connect to Aggregation Gateway boxes that will be installed at traffic intersections, parks or bus stops, which will then send the data from surveillance cameras or air quality sensors back to government agencies for analysis.

In that same month, the IDA launched the Data-as-a-Service (DaaS) pilot to connect data users with private data providers in order to enrich the data ecosystem. According to Steve Leonard, Deputy Chairman of IDA: "To tackle difficult urban challenges in areas such as healthcare and energy, we need to capture and analyse massive amounts of data, and use that situational awareness to take meaningful actions... Our goal is to challenge ourselves to keep finding new ways to better use data to serve citizens of all ages."[4] In Leonard's view, "We cannot have a smart nation unless we can find ways to use data innovatively."[5]

Data providers can now participate in the DaaS pilot to increase the public visibility and availability of their datasets, and also understand and check its relative quality through a set of Data Quality Metrics. To enhance the bandwidth for the DaaS pilot, IDA has signed a Memorandum of Intent with Amazon Web Services (AWS) to provide cloud computing services to the first 25 data providers when they sign on to the pilot via AWS.[6] SNP thus aims to leverage Big Data analytics.

Some examples include data-driven smart nation applications in healthcare, such as the management of hospital bed shortages and availability of patient transportation. Another major initiative called 'Virtual Singapore' aims to develop an integrated three dimensional map of Singapore enriched with layers of data about buildings, land and the environment that is publicly available and compatible with the SN-OS.[7] Rich geo-spatial data such as this could have numerous benefits to both governments and businesses. For example, urban areas could be better designed to capture air currents that would keep outdoor spaces more comfortable in Singapore's hot tropical climate, and businesses could better plan their locations based on people flows. However, the most profound innovations are yet to be realised.

The pilot initiative

In collaboration with numerous planning, development, land-use and transport agencies, regulators and statutory boards, the IDA has launched the Jurong Lake District (JLD) smart township pilot initiative. Located in the western region of Singapore with a population of about one million, the JLD will serve as a live test bed for smart applications that would eventually be scaled up to a national level.

Recognising that, faced with resource constraints, city managers will have to rely on a larger suite of tools to monitor the environment and enforce public safety, one JLD pilot project includes the capture and sharing of real-time environmental information such as temperature, relative humidity and air quality. This then feeds into an automated system that can, for example, in conjunction with advanced video sensing technologies, detect people smoking in prohibited areas.

While caring for the elderly is a societal goal, it is an increasingly expensive proposition. Moving away from a model centred around regular physician visits to one in which the elderly can be monitored, consulted or even treated in their homes has promising financial outcomes that make better use of resources with increasing benefits to society. Scheduling regular physician visits is often not needed, and clogs the offices of healthcare workers. In addition, it is often inconvenient and costly for patients and their family members. The Smart Elderly Monitoring and Alert System (SEMAS) is thus another initiative, which allows caregivers to remotely watch over the elderly by providing non-intrusive regular monitoring through in-home sensors that collect and compare data on the elderly person's routine based on a pre-set profile. When the system detects deviations from the profile, for example when the elderly person suffers a fall and is unable to get up, SEMAS will notify the caregiver. This reduces the need for costly and unnecessary physician visits.

In the broader area of healthcare, patients will no longer be required to visit clinics and hospitals for minor tests and monitoring. Rather, the monitoring can be done continuously from home via smart devices that can measure blood pressure, heart rate or other vitals and send the statistics to doctors using mobile technology. This also allows patients to consult doctors remotely. Collaboration between public and private entities will be essential for this to work.

Ensuring a successful smart city transformation

Singapore has identified five key factors for a successful smart city transformation.

DYNAMIC GOVERNANCE

Dynamic governance is defined as, "a governance system's ability to remain relevant and effective by continuing to change, innovate and adapt to new and emerging needs in a changing environment. The capacity and capabilities to change, in short, dynamic governance, are crucial for sustained and sustainable growth and e-development."[8]

Three critical governance capabilities are necessary for considering major policy issues and taking effective action: "First, thinking ahead—the ability to perceive early signals of future developments that may affect a nation in order to remain relevant to the world; second, thinking again—the ability and willingness to rethink and remake currently functioning policies so that they perform better; and third, thinking across—the ability and openness to cross boundaries to learn from the experience of others so that new ideas and concepts may be introduced into an institution."[9]

This mantra of thinking is further expanded by Singapore's smart city initiative, which propagates the notion of anticipatory governance. For example, the government can manage change through intelligent decision-making supported by 'smart' data gathered through its position at the centre of the information ecosystem.

TECHNOLOGY

Singapore developed its IT capabilities over several decades through strategic investments in computing infrastructure. Such capabilities include an extensive and continuously developed IT infrastructure, competencies in identifying and providing efficient integrated electronic services, and continued investment in developing the IT capabilities of both service providers and users throughout Singapore. On IT infrastructure, the World Economic Forum ranks Singapore as one of the most network-ready countries in the world.

MANPOWER

The IT infrastructure and networks would have been inconsequential without the skills to quickly build and apply IT solutions. The foundation for 'soft infrastructure' or IT manpower was firmly established in the earlier ICT Masterplans. Literacy, including a high emphasis on computer-based skills education, helps prepare students for the digital economy and future employment. Accompanying the involvement of the community groups and schools, significant investments were also made to support specific adoption programmes among low-income households and late adopters of ICT.[10]

PARTNERSHIPS

Given the SNP's scope, complexity and pervasiveness in its impact on every strata of society, multi-government agencies and public-private sector collaborations are essential to its success. Singapore has established a network of inter-organisational IT expertise across both the government and private sector. The collaboration of various experts has helped achieve a build-up of technological capability in Singapore with technology transfer from its partners. Such collaboration is important in helping to bring IT expertise to the next level.

Partnerships are formed through formal contracting and mutual dependency, when one organisation has to rely on another's dominant technological architecture or brand that offers value to the ecosystem, or other factors such as product characteristics or geography. Collaboration is one of the key enablers recognised by the IDA in Singapore's SNP. An integral part of this initiative is the Call for Collaboration for all key stakeholders to contribute to the success of the initiative.

The collaboration model adopted by the government comprises two forms: public-public partnerships and public-private partnerships. As a public-public partnership, Singapore's largest government ICT research institute, Agency for Science, Technology and Research (A*STAR), spearheads research in collaboration with a wide spectrum of stakeholders. In the JLD test bed project, one A*STAR initiative involved working with the Land Transport Authority to develop a next generation public transport system focused on improving the commuter experience. Under the public-private arrangement, Singapore's government agencies collaborate with corporations to co-research and/or co-innovate. These corporations comprise multinational corporations, local globally competitive companies, and small and medium enterprises.

At the heart of Singapore's ICT journey is its culture of innovation and experimentation. Innovation is about risk-taking. 'Cautious experimentation' of new concepts and ideas before going 'live' is a common characteristic of Singapore's success. It is common to see the government of Singapore taking the lead while the private sector and civil society supply the know-how and citizen feedback respectively. This 'tripartite collaboration' model ensures that all key stakeholders in the value-chain are engaged in the process of realising desired outcomes.

PEOPLE

A smart city is purpose-driven to enrich the living and working standards of its inhabitants. The Singapore approach is people-centric as there is comprehensive engagement of key stakeholders–that is, its citizens, businesses and government agencies–involved in all phases of smart city development. The JLD test bed, for instance, also includes mechanisms for obtaining feedback from citizens and business collaborators on what worked and what did not work to arrive at incremental and appropriate solutions.

Framework of Singapore's smart city transformation

Singapore's model of a smart nation is thus driven by three key themes: innovation, integration and internationalisation (refer to Figure 2).

ICT provides a wide innovation platform that enhances Singapore's ability to stay abreast of other alpha cities–such as Hong Kong, Tokyo, London and New York–by creating areas of excellence in governance, partnerships, technology and manpower. This is supplemented by the government's current push to harness Big Data and data

FRAMEWORK OF SINGAPORE'S SMART CITY TRANSFORMATION

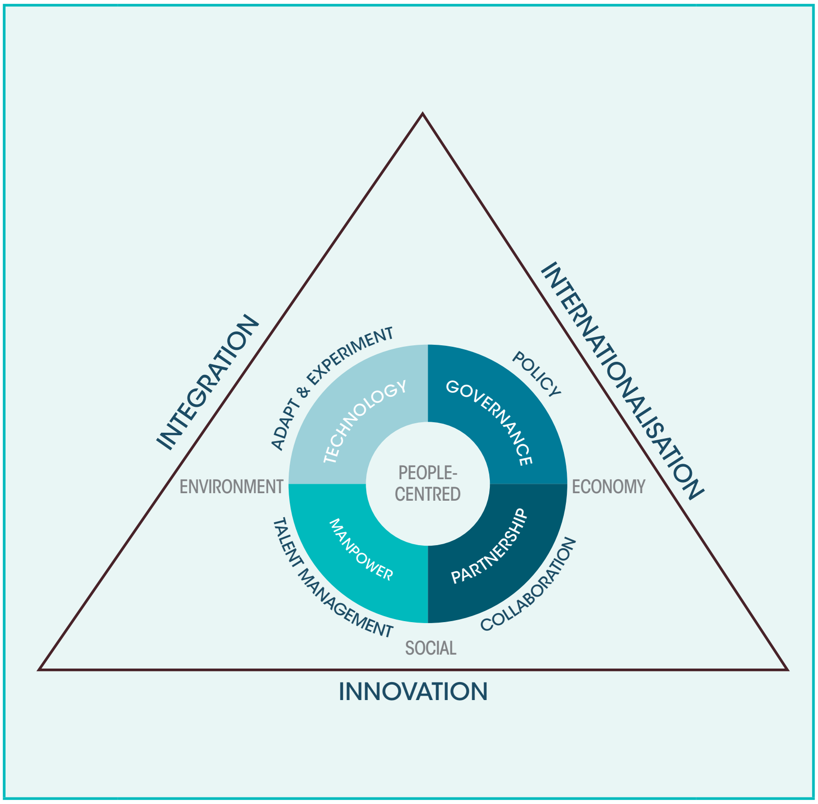


FIGURE 2

analytics for innovative decision-making and adaptive planning. Integration of platforms across government and businesses is an enabler of information accessibility, coordinated service offerings and interaction among stakeholders.

The current boundary is linking data users and data providers with the purpose of developing applications to aid in such decision-making. The nation-wide network of sensors that are being built will drive data on externalities to be harnessed for personal and business applications. For instance, smart car parks help optimise parking space usage by monitoring demand patterns of residents and visitors. Lastly, the smart nation initiative should enhance Singapore as a global hub for business and position the country as a smart city brand, renowned for its ICT expertise. This can be leveraged to build bilateral relationships overseas. For example, Singapore is leading initiatives in building smart cities in China while India has recently expressed interest in tapping into Singapore's knowledge and experience for its own smart city initiatives.

Lessons learned

Today, Singapore is well on its way to fulfilling its vision of being the world's first smart nation. Its story provides a useful template to reflect on the key lessons that can be drawn from this experience.

Firstly, the journey relied on political consolidation and committed leadership to lead, adapt and sustain the endeavour. The status quo is not an option, and the government must be ready to take the lead on managing change. For Singapore, this attitude became particularly apparent in the 1980s when it began laying the groundwork for the island's ICT infrastructure to be future-ready by anticipating and preparing for long-term trends.

Secondly, the vision, outcomes and goals must be clearly communicated to all stakeholders. These are laid out publicly in the country's master plans, which help to align goals and expectations. Moreover, the master plans lay out what capabilities are necessary to identify targets and execute these problem-solving initiatives with measurable impact.

Thirdly, the importance of stakeholder engagement and collaboration cannot be understated. The scale of the smart city initiative is too large and complex for any single agency to undertake on its own. More importantly, it impacts every facet of society.

Last, but not least, it is always useful to 'think big' but 'start small and scale fast'. It is about taking small yet bold steps forward to stay ahead. Perhaps the most subtle lesson is the importance of experimentation, exploratory learning and reflection on failures, as they provide the catalysts for innovation, and the foundation of establishing a smart nation.

Foo See Liang
is Associate Professor (Practice) in the School of Accountancy, SMU

Gary Pan
is Associate Professor of Accounting (Education) and Associate Dean (Student Matters) in the School of Accountancy, SMU. He is also the Academic Director, SMU-X

References

1 Singapore Department of Statistics.
2 European Commission, "A Digital Agenda for Europe: A Europe 2020 Initiative (Smart Cities)".
3 iN.SG, "Singapore Lays Groundwork to be World's First Smart Nation", June 18, 2014.
4 IDA, "First-Ever Smart Nation: Data Works Opens with New Data-as-a-Service Pilot", October 28, 2014.
5 iN.SG, "Discovering Innovative Ways of Dealing with Unstoppable Forces", November 20, 2014.
6 IDA, "First-Ever Smart Nation: Data Works Opens with New Data-as-a-Service Pilot", October 28, 2014.
7 Prime Minister's office, Singapore "Transcript of Prime Minister Lee Hsien Loong's speech at Smart Nation launch". November 24, 2014.
8 Jeannie Chua, "The e-Transformation Journey of Singapore", In "National Strategies to Harness Information Technology, Innovation, Technology, and Knowledge Management", N.K. Hanna and P.T. Knight (eds.), 2012 Springer Science Business Media, LLC. p64.
9 Boon Siong Neo and Geraldine Chen, "Dynamic Governance: Embedding Culture, Capabilities and Change in Singapore", World Scientific Publishing, 2007, p 3.
10 Jeannie Chua, (Ibid).

PROPEL YOUR CAREER WITH AN SMU LKCSB MASTER'S DEGREE

Lee Kong Chian School of Business (LKCSB)

SMU LKCSB's postgraduate programmes are designed to advance executives in their careers with strong leadership and management fundamentals and the ability to navigate their businesses through times of volatility, uncertainty, complexity and ambiguity. With top accolades from the industry and global rankings, our programmes place a strategic emphasis on diversity that allows executives to glean insights across a myriad of perspectives. The interactive pedagogy reinforces deep practical knowledge that will enable you to deal with the breadth of issues that surface in the course of your business. To top it off, the programmes incorporate flexibility through the means of short courses to facilitate executives with gruelling work schedule demands in their learning journeys. Stay ahead with an SMU LKCSB Master Degree.

Postgraduate Programmes

- Executive Master of Business Administration
- Master of Business Administration
- IE-SMU Master of Business Administration
- Master of Human Capital Leadership
- MSc in Management
- MSc in Applied Finance
- MSc in Communication Management
- MSc in Innovation
- MSc in Quantitative Finance
- MSc in Wealth Management
- Global Master of Finance Dual Degree

AACSB ACCREDITED

EFMD EQUIS ACCREDITED

SMU MASTERS

www.business.smu.edu.sg/programmes/postgraduate +65 6828 0882 LKCSBPG@smu.edu.sg

Bringing Silicon Valley to Thailand

Searching for unicorns.

By Krating Poonpol

The year 2015 was definitely the year of Thai start-ups; the number of companies set up surged eightfold to more than 2,500 in 2015 from just 300 in 2014.[1] This is particularly noteworthy given that the very first incubator in Thailand was established as recently as 2012. Even in 2013, there were only three incubators in the country. E-commerce, logistics, content and online gaming were the segments attracting the most attention, and start-ups have burgeoned in this space.

Even now, the trend shows no sign of abating. In 2016 more new players will be hopping on the bandwagon, widening the reach of start-ups to Fintech, travel and real estate; and despite their novelty in the market, most will be funded within the year. It doesn't come as a surprise therefore that Dave Peck, Global Head of Influencer and Social Media Marketing at PayPal, describes Thailand's start-up scene as 'hot and promising'.

Attractiveness of the Thai market

According to Global Entrepreneurship Monitor's 2014 report, Thailand is the second most entrepreneurial nation in the world, with 16.7 percent of its population being self-employed compared to the United States, which ranked 41st.[2] Although a significant proportion of the self-employed population of Thailand works in small, single-person businesses such as retail (food kiosks) and transport (*tuk tuks*, rickshaws, etc.) and don't always 'think big'–it does indicate a culture that is inclined to entrepreneurship.

Thailand has a sizable market of 66 million people, rendering itself to scale, and if ASEAN is considered as a whole, companies can look forward to serving a market with a population of 625 million, and one with a growing and increasingly affluent middle class. The region also has a strong Internet culture.

Being a nascent market, competition is not that high, especially for a company that has raised funding. The do-or-die slogan of Silicon Valley start-ups is also less relevant in Thailand, where entrepreneurs are significantly more risk averse.

Thai entrepreneurs have benefitted from the Japanese money that has poured into the country. Japanese fund managers continue to invest in Southeast Asia, where asset prices are still not that high, and Thailand is an attractive proposition given that markets in China and India have become overheated. Chinese investors too are starting to look at Southeast Asia, and a case in point is Alibaba's recent investment of US$1 billion in Lazada, which is the Chinese e-commerce giant's largest overseas investment to date and a play on the region. Thailand is also in a good position to attract such investment.

However, Thailand's attractiveness is not limited to Asian investors alone. While some believe that Silicon Valley is showing signs of cooling down, venture capital funds such as Golden Gate Venture, KK Fund, 500 TukTuks, 500 Durians, Monk's Hill Venture, InVent, Cyber Agent Venture and Recruit Group are actively investing in Thailand, with new funds being launched every week! The spate of venture capital funds is a key indication of the potential of the start-up ecosystem in the country.

Entrepreneurial outlook

The start-up industry in Thailand is in its early stages of development. In many ways, it is like the Wild West: everyone is doing what they want and there are few systems, guidelines or benchmarks in place to support and steer the greenhorn, albeit enthusiastic, entrepreneurs.

How does the start-up environment in Thailand today compare with that of Silicon Valley 10 to 15 years ago? To begin with, entrepreneurs in Thailand are mostly in their early 30s, a little older than those in Silicon Valley. However, while older, they are less mature and less experienced than their Silicon Valley peers. In addition, as the Thai education system largely discourages risk-taking behaviour, discussion and debate rarely play a part in their learning process. Thais

MY JOURNEY

I started off as an engineer from Chulalongkorn University in Bangkok and worked for Procter & Gamble for several years before joining the Master's Programme in Marketing (MIM) at Thammasat University. As an engineer, I tinkered with products, but my true passion was revealed when I started tinkering with businesses. As part of the MIM, I participated in a business plan competition. It was then that I first realised that there was no ecosystem in place in Thailand to support young start-ups like us.

My postgraduate studies brought me to Stanford University in the U.S., after which I worked for Google. I then started my own company in Silicon Valley. The scene there was very different: I found a vibrant entrepreneurial community and a well-established ecosystem that supported start-ups in terms of funding, mentoring, education and industry expertise.

I decided to return to Thailand and use my skills and knowledge to help young Thai start-ups, and contribute towards developing the Thai ecosystem.

generally like to be fed knowledge, and consequently, there is little challenge to the status quo, and no daring to change things.

This risk-averse mindset manifests in the lack of breakthrough innovations coming out of Thailand thus far. Most companies are focused on localising business models that have seen success in the West, leading to a 'copy-adapt-paste' model. Having said that, Thailand is also beginning to see some uniquely designed interfaces. In the Fintech space, for example, start-ups like Piggipo and T2P Deep Wallet have developed truly disruptive models. Vachara Aemavat, Vice Chairman of Thailand Tech Start-up Association, concurs, "Today's start-ups are quite different compared to those of last year. They are more creative. They are doing something that hasn't been done before."[3]

What Thailand now needs is awareness, education and opportunity. The potential already exists. But we need to work toward creating a conducive ecosystem in which these budding entrepreneurs can blossom. For this we need the support of key stakeholders–the government, the investor community, a society that supports entrepreneurship and, not least of all, a cohort of passionate, well-trained and well-equipped, risk-taking entrepreneurs (refer to Figure 1). While the private sector is certainly stepping up to show their support, the Thai government is also beginning to see the value and potential contribution that start-ups can bring to the economy.

Garnering government support

The Thai government has been playing catch up, and is just beginning to focus on the potential of start-ups in the country. Consequently, the regulatory and policy structures needed to support and incentivise start-ups are lagging behind. At the Thailand Startup Expo in April this year, the government is expected to formally announce a 'national start-up agenda' that will focus on addressing imminent issues on how policy and regulatory frameworks can buoy start-ups.

A key point of contention for Thai entrepreneurs is the difficulty in getting long-term visas or immigrant visas for non-Thais who want to work and set up businesses in the country. The short-term visit visa needs to be renewed every three months and involves cumbersome paperwork, thereby becoming a deterrent for anyone looking at a longer-term horizon in the country, be it entrepreneurs, investors, mentors or industry experts.

The present tax system also does not support or incentivise start-ups. Thai start-ups could benefit from tax exemptions for capital gains, as offered in other countries, or receive direct financial support from the government, like their peers in Singapore. This year, the Thai government is expected to announce some tax relief measures for start-ups in the form of a five-year tax exemption plan and exemption from capital gains tax.

> While the private sector is certainly stepping up to show its support, the Thai government too is beginning to see the value and potential contribution that start-ups can bring to the economy.

In addition, there is currently no framework that allows for Employee Stock Ownership Plans (ESOPs) in private companies. ESOPs serve as a strong retention mechanism for employees, and are particularly valuable for young start-ups that would otherwise struggle to retain talent and suffer most when knowledgeable employees take their skills and intellectual capital to competitors. Thailand also does not have convertible debt, the most common type of security for start-ups the world over. The lack of these structures means that entrepreneurs have to take on additional costs and risks, and are thus discouraged from diving into disruptive initiatives.

Another stumbling block is the lack of lucrative exit options for investors. Most mature start-ups will not list the company on the Thai exchange as the stock gets beaten down and premiums are insignificant. The market has rarely seen a successful IPO of a tech company, which leaves acquisition as the only exit option for Thai start-ups. At present Japanese companies account for 90 percent of acquisitions in Thailand. However, western companies are also now showing interest in investing in Thai start-ups, and this is certainly an encouraging trend.

Finally, awareness building is another powerful tool that the government can leverage to encourage investors to set up incubators and accelerators.

Attracting investors

The average Thai investor today is not sophisticated enough to want to invest in start-ups, and prefers to buy stock in big names such as the CP Group, SCG and AIS. This lack of inclination to add fledgling start-ups to their portfolio leads to a classic chicken-and-egg situation: no one wants to be the first to list their company on the stock exchange; and because there is no precedence of successful listing, investors continue to be wary and risk averse.

THE START-UP ECOSYSTEM

FIGURE 1

Nonetheless, the number of venture capital funds has grown rapidly in the past couple of years. Our fund, 500 TukTuks, was launched in July 2015, and was one of the first early stage seed funds to invest in Thai start-ups. Within the first seven months, the company had raised US$12 million and invested in 20 start-ups.

Thai corporates have also been showing interest in start-ups. Siam Commercial Bank recently set up a US$50 million Fintech venture capital fund, while the telecom company AIS invested 300 million Baht (US$8.54 million) in a fund called InVent. Thai entrepreneurs are also getting support from incubation programmes set up by major telecom operators. For instance, DTAC, the country's second largest telecom company, in conjunction with Telenor, initiated DTAC Accelerate in 2014, a start-up incubator that offers opportunities for seed funding, one-on-one mentoring, and a four-month training boot camp for new entrepreneurs.[4] DTAC Accelerate has been home to some of the most successful Thai start-ups—70 percent of them have raised funds and one that was particularly successful, Claim Di, recently raised US$2 million.

In Japan, corporations play a major role in the venture capital market, while in the U.S., it is the venture capital funds that have fuelled the start-up industry. It remains to be seen which trend Thailand will follow. Right now, it seems to be treading on both.

Changing mindsets

Start-ups in Thailand are still fragile, and many of them give up too soon. Societal norms, where failure is seen as a social taboo, further reinforce this mindset. But innovation by nature is disruptive—our innovators must disrupt and destroy the old mindset to create new things. It's like a revolution.

My mantra to young entrepreneurs is: You have permission to fail. You have permission to change the world. You should dream high, fight hard, and never give up. Start-ups are not just about making money; they are about bringing change. Self-motivation is crucial, and society must support and encourage these entrepreneurs.

Thai entrepreneurs need to think big, and beyond Thailand. I always advise them to think regionally, if not globally. The impending ASEAN Economic Community may be scary for us, but it provides bountiful opportunities. Myanmar has just opened up and everyone there is hungry for new things and success. The Vietnamese are diligent and hardworking. If they work three hours more than us a day, they will be 15 percent better off than us annually.

Educating the entrepreneurs

I believe that talent will be a major limiting factor for the Thai start-up ecosystem going forward. The current education system is not producing the right talent, and there is not enough tech talent in the pipeline. The number of tech graduates is small and the cohort lacks the requisite knowledge and skills for innovation and entrepreneurship.

When I returned to Thailand in 2012, after working and running my own start-up in Silicon Valley, I wanted to create a start-up community here. It took me seven years to learn from all my experiences in Silicon Valley, and I wanted Thai innovators to learn faster than me. I firmly believe that education transforms lives. Good education inspires people to be better and do better. Many institutions and educators have changed my life and made me what I am today, and I too want to give back to the young entrepreneur community of Thailand what I have learned and earned.

We founded Disrupt University in April 2012, which is where we teach people who have the passion for entrepreneurship all they need to know in short courses, without having to go all the way to America or spend many years trying to figure out the basics. Students with college degrees and some work experience join these short courses, and are taught cutting-edge tactics adapted directly from Silicon Valley. The university offers a variety of courses ranging from eight hours to 21 days, along with six-day long intensive courses, to suit the needs of individual students.

By 2015, 500 students have graduated from Disrupt University. The start-ups these graduates founded span a variety of industries and technology segments, including last mile logistics, education tech, demand apps, e-commerce, Fintech and property tech. One of these, Taamkru, an educational app for pre-schoolers, won an award for Asia's most Promising Start-up at Echelon 2014. And another went on to win the first prize in a competition hosted by DTAC, and will get an opportunity to visit and experience the Silicon Valley ecosystem. In 2015, six out of the top ten start-ups in Thailand were started by ex-students of Disrupt University.

Spotting the unicorn

In the end, it is not so much about bringing Silicon Valley to Thailand, but bringing its mentorship and methodology to Thailand. I am bullish on Thailand. It is moving along a positive trajectory, and with support from the government on regulatory infrastructure, the Thai start-up industry has the potential to become a strong regional player.

Malaysia and Indonesia have seen three or four start-ups reaching a valuation of over one billion dollars. In Vietnam there has been only one such company. We also need that one big exit story of a Thai start-up—once we get that, the ecosystem will start to gain momentum. Although Thailand is yet to produce its first 'unicorn', I am confident that that day is now not too far away.

My mantra to young entrepreneurs is: You have permission to fail. You have permission to change the world. You should dream high, fight hard, and never give up. Start-ups are not just about making money; they are about bringing change. Self-motivation is crucial, and society must support and encourage these entrepreneurs.

Krating Poonpol
is a Partner in 500 TukTuks Startup and founder of Disrupt University in Thailand

References

1 Sasiwimon Boonruang, "Top 10 Thai Start-ups", Bangkok Post, December 16, 2015.

2 "Top 15 Most Entrepreneurial Countries in the World", Tech.co, June 30, 2015.

3 Elaine Huang, "Is starting up in Thailand more than a trend?", e27, November 13, 2015.

4 "Helping Thai startups 'Accelerate'", March 10, 2014, Telenor group.

Discover a Different Line of Defence
DXO.
Defence Executive Officer.
As a non-uniformed defence professional, you will work alongside other DXOs and military personnel who share the same passion for defence, each armed with capabilities from a diverse line-up of disciplines. With your unique expertise, you will contribute to the security of our nation in ways that no one else could.
Be different. Be a DXO.
Embark on a diverse career path as a DXO
Logistics
Finance
Paramedical
Defence Psychology
Human Resource
Communications
Defence Policy
Stephanie Phang
Research & Plans Office
Scan for more info
www.mindef.gov.sg/dxo
YANG PERTAMA DAN UTAMA
MINDEF
SINGAPORE
DXO
where minds stay future bound