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Tel: +1 212 705 8900
Fax: +1 212 705 8999
society@comsoc.org, www.comsoc.org

Singapore Office
Fanny Su Beh Noi, Manager
59E Science Park Drive
The Fleming, Singapore Science Park
Singapore 118244 SINGAPORE
Tel: +65 778 2873, Fax: +65 778 9723
f.su@ieee.org

China Office
Ning Hua, Chief Representative
Rm 1530, South Tower,
Raycon Info Tech Park C,
Haidian District,
Beijing, 100190, China
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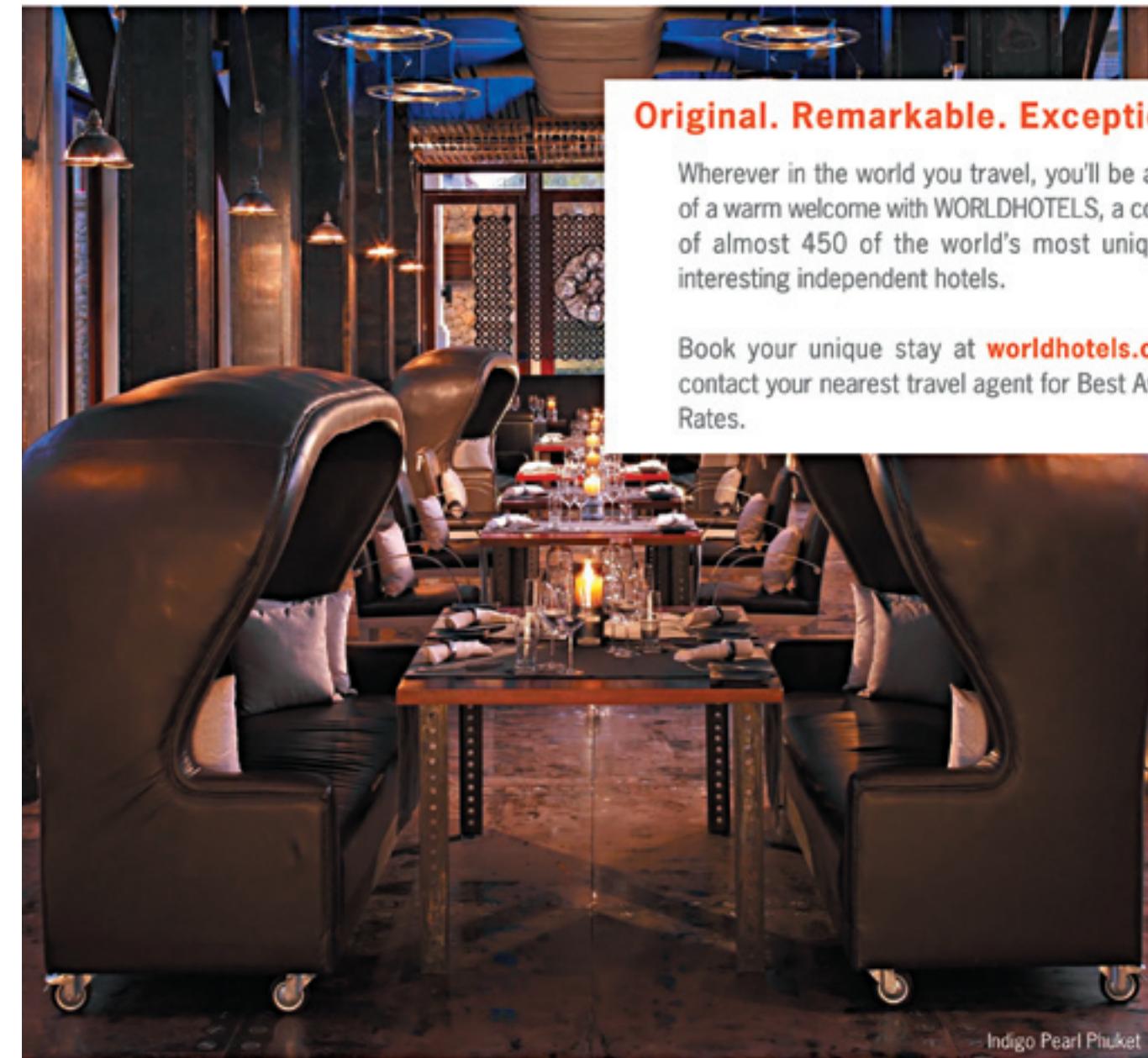
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G20 in Seoul: The Search for Consensus

BY DONALD KIRK

The noise-making of demonstrators from outside the tall security fence surrounding the venue of the summit of leaders of the world's 20 most important economic powers in November will probably not be heard by the summiteers meeting inside the spacious Convention and Exhibition Center in Seoul's high priced, high-rise Gangnam district, south of the Han River that bisects the capital.

The demonstrators may believe passionately that they have much to protest over the spectacle of powerful men in dark suits, flanked by solicitous aides and surrounded by bodyguards, promulgating guidelines for the economic future of billions of people, most of them far less fortunate than they. Inside the conference halls, the world leaders gathering at the G20 will be focusing on protests, far more politely stated but also more relevant, from within their own elite group over policies needed to head off the kind of recession that caught the world by surprise two years ago and never seems to go away.



Sebastian Czapnik | Dreamstime.com

For South Korea, the first country ever to host a G20 get-together that's not a member of the G7, the group of seven top economic powers, the pressure to make the summit a terrific success is overwhelming. By the time the world leaders are ready to give their farewell press conferences after two days of meeting, the summit will have met the highest expectations of South Korea's President Lee Myung-bak, the summit host, if only they can agree on a consensus on critical points that papers over deep differences. The South Korean government, as Fred Bergsten, director of the influential Peterson Institute for International Economics for all its 29-year history, observed, "is entrusted with a monumental responsibility" as the G-20 "starts to segue into steering the world economy for the long run rather than simply as a fire-fighting brigade."

SaKong II, the former finance minister who is chairman of the presidential committee on the summit, is still more emphatic about the need for the summit to go down in history as not just a success but a moment of glory in South Korea's rise as one of the world's major economic powers. "We feel a great responsibility to make the Seoul summit another success," he said after meeting Larry Summers, President Barack Obama's economic guru. For the summit to accomplish this goal, the global leaders will have to endorse new rules, adopted by financial regulators at a session in Basel, Switzerland, in September, in which they sought to guarantee "never again" would the world plunge into financial chaos as a result of the lack of discipline of banks without enough money to protect themselves and their clients from disaster. At the same time, the G20 would like to come up with a more or less credible resolution of tremendous imbalances in global trade for which artificial exchange

For South Korea, the first country ever to host a G20 get-together that's not a member of the G7, the pressure to make the summit a terrific success is overwhelming.

rates, such as that of China's currency, are partially responsible.

The deal at Basel, under the aegis of the 27-member Basel Committee on Banking Supervision, calls for banks to have twice as much capital on hand in case of sudden losses. That makes eminent sense to most finance ministers as well as economists, but needs the formal endorsement of the G20 to take effect. That's likely to happen – but not without disagreement and controversy. The agreement "represents a significant and welcome increase to the capital that banks will be required to hold," said a commentary in the *Financial Times*, but "worries that a rapid transition will cut lending and deepen the global recession mean the full increase will be delayed until 2019." Such a protracted "phase-in period is unnecessary and potentially harmful," said the FT commentary. "Instead, a much shorter period should be implemented with regulators forcing banks to meet the new require-

ments by going to the market to raise fresh capital." The banks say such stringent demands would inhibit them from lending as much as needed to stimulate a sluggish world economy – and they have the backing of powerful Basel committee members, notably Germany.

The question of global imbalances may be even more difficult. Fred Bergsten, in a statement to U.S. House of Representatives' Ways and Means Committee, blamed China's "substantially undervalued" currency for the spiraling U.S. trade deficit. He called on the U.S. "to mobilize a multilateral coalition to press China to let its currency rise by the needed amount" – and stressed the role of the G20 in making that happen. "This currency realignment is an integral part of the global rebalancing strategy adopted by the G20 and laid out in detail as part of its new Mutual Assessment Process," Bergsten testified. China and all other G20 governments, he said, had already agreed on this basic strategy – and "further development and implementation of the program is to be discussed, and hopefully adopted, at the next G-20 summit in Korea in November."

If the chances of the G20 resolving this worsening problem seem slim, world leaders are still more than likely to come up with diplomatic double-talk that will somehow postpone real solutions. "A framework is one of the main purposes," SaKong explained, sitting beside Bergsten in a media session at the Peterson Institute in Washington. In the quest for ways "to weed out global imbalances," he said, "there are different approaches and different views." All of them would be discussed throughout a process in which finance ministers and their aides would be scrutinizing all the details before the two-day gathering of world leaders. "All countries will submit policy templates," said SaKong. "In the end, we will present a comprehensive action plan. We will come up with the Seoul action plan. At the end, they will all agree."

Bergsten expressed concern that "some imbalances are going in the wrong direction" and that "imbalanced growth could be one of the aspects of the Seoul summit." SaKong, however, was confident that South Korea, as the host, would avoid signs of bias in a debate in which South Korea, as an exporting nation that is often in the center of trade disputes with the United States and Europe, has a clear self-interest. "Our government's attitude is we are given a rare opportunity to play a global leadership role," he said. "If we work toward national or regional interest, we will not fulfill our opportunity." The whole point, said SaKong, is "for us to make G20 institutionalized and strengthened." Answering "skeptics who say G20 is in the midst of crisis," he went on, "that's another reason why we have to make G20 a success if you are serious about G20's future." So far, he argued, "G20 is working."

As far as South Korea is concerned, the overwhelming priority is on dealing with the danger of more shocks with worldwide repercussions. The Korean ambassador to the United States, Han Duk-soo, credits the G20 with having seen "the potential of increasing capital volatility" as "a serious risk to the global economy." With the G20 committed to developing ways "to help countries deal with such problems," he told a forum in Wash-



ton, "Korea has listed the strengthening of the global financial safety net as a major item on the agenda" for the summit. In that context, he cited four principles on which to build the safety net – "certainty, sufficiency, freedom from stigma and minimization of moral hazard." A global safety net, he said, "must work as a forward-looking crisis prevention mechanism rather than a crisis resolution mechanism."

Ambassador Han, who rose through the ranks of the finance ministry to the post of finance minister and then prime minister before going to Washington, outlined what he said was a "multi-layered network of facilities, national, regional and global," to meet all contingencies.

"The national layer should have each country deploying prudential macro-economic policies to prevent the contagion of international financial and economic problems," he said. "Effective national economic and financial policies provide the first and most important line of defense for countries facing external shocks. If needed, a bilateral swap-line should be considered to stabilize the financial markets." The second layer, he said, "comprises regional financial safety nets" such as regional arrangements set up in Europe in response to the euro area financial crisis and the Chiang Mai initiative of the Association of Southeast Asian Nations. Now, he went on, "We need to find the most effective way for the IMF and regional alliances to cooperate through coordinated surveillance or co-financing."

Han urged expansion of the IMF's role in establishing a third layer "of global financial safety nets." The IMF's "various liquidity provision facilities make up the global layer," he said, but "some countries feel the flexible credit line is not sufficient." As a result of cooperation between the G20 countries and the IMF, said Han, the IMF's executive board in August increased the duration and amount of available credit in order to establish a "precautionary credit line." The new credit line, "for countries that have sound economic policies but still may have some moderate vulnerabilities," said Han, provide "insurance against financing shocks." At the same time, he called for "more efforts to ward off crises preemptively" – a task that the G20 summit in November could advance by discussing "additional measures to enhance global financial safety nets" and "more cooperation between regional financial safety nets and the IMF."

A crucial issue when it comes to the IMF role is that of "quota reforms" – that is a huge shift from economically dominant countries to those that are regarded, in the polite language of the statement issued by leaders at the most recent G20 summit in Toronto, as "emerging market and developing countries," referred to in the lingo of official explanation as "EMDCs." In numerous behind-the-scenes discussions, "some emphasize a shift of at least 5 percent to dynamic EMDCs while others under-

Fred Bergsten, in a statement to U.S. House of Representatives' Ways and Means Committee, blamed China's "substantially undervalued" currency for the spiraling U.S. trade deficit.

an understanding if not precise terms.

Debate on the IMF role reflects the need for the G20's, as they are called, to consider the plight of poor and struggling economies. "In the wake of the financial crisis, shrinking economies and volatile prices for food and energy are taking their toll on the developing world," according to a position paper on the summit. "The world cannot continue to tolerate the depth of poverty" and "the level of inequality that persists between nations." That's "both a moral issue and an economic imperative," said the paper, explaining why it's "appropriate for development to occupy a central place in the G20 agenda." This summit hopes to go beyond the platitudes of the Toronto summit, where leaders "mandated the G20 to address development issues, recognizing that reducing poverty and narrowing the development gap are essential to the larger agenda of achieving rebalanced global growth and complying with our international commitments to achieve the Millennium Development Goals by 2015."

The question is whether the G20 can get beyond those high-sounding phrases and get down to the difficult task of turning goals into action that participating leaders will not only endorse but sincerely attempt to fulfill. Somehow the notion that the summit could actually end in failure is simply unthinkable. Skeptics may ask whether the participants are sincerely committed to fulfilling promises made at the summit, and the issue of global imbalances in just about every imaginable statistic is near-insoluble. Interestingly, the summit is happening just as U.S. pressure on China to raise the exchange rate of its currency from an artificially low level is reaching a level of alarming intensity in the American Congress. That's a dangerous sign when considered in the context of Chinese sensitivity over American navy vessels cruising into the South China Sea and the Yellow Sea on exercises or just on port calls.

By the time the leaders have bid their final farewells, however, we may be confident they will somehow have signed off on a document that will give an impression of cooperation if not unity. "We are quite satisfied to gather all these countries together to give it a try," said SaKong. "You have to evaluate the results based on total importance. You cannot get the whole thing done."

Fred Bergsten had no doubts. "They are very likely to reach a consensus," he said. "They are quite skillful in covering over agreements. It's for the outsiders to assess whether the consensus was adequate for dealing with the problems." A-P

line the shift from over-represented to under-represented countries." An overview of the summit noted that "adjustments will have to be made" – more polite lingo, in this instance hinting at inevitable disagreement on which the leaders somehow will have to come to

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BOYÉ LAFAYETTE DE MENTE

Boyé LaFayette De Mente, from Ozark Hills, Missouri, went to Japan in 1949 during the U.S. occupation in the navy's intelligence branch. He earned a degree in economics and Japanese from Tokyo's Sophia University. After a successful stint as a businessman and editor of commercial publications, De Mente became a professional writer focusing on living and prospering in Japan, and Korea and China. He has published many books on the social and business customs in these economies that stress how the languages embed key norms, values and ideals.

To survey these, see his personal website at www.boyedemente.com and <http://arts.searchbeat.com/boye.htm>.

He gave this exclusive interview to Victor Fic, our special correspondent for economics and politics.

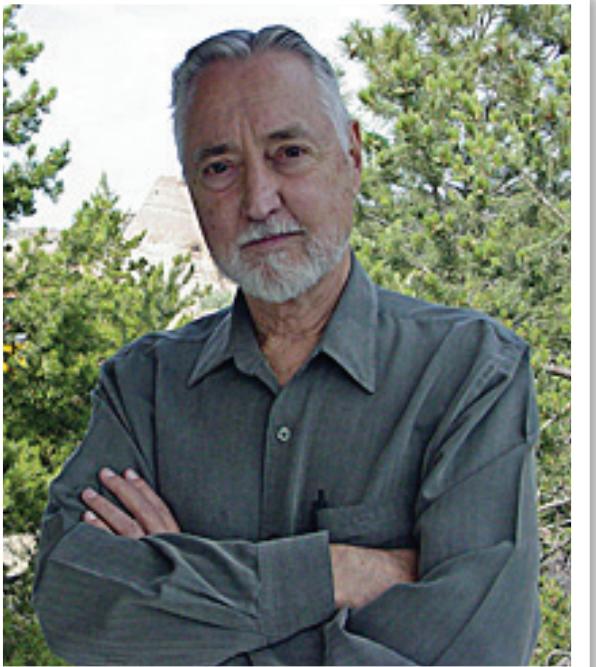
BY VICTOR FIC

Why did you write books on cultural and social key terms in Japan, Korea and China?

In early 1958, I became the editor of a new Tokyo-based trade journal and saw that the Western mindset misunderstood Japanese values and practices. I explained one side to the other because I grasped Japan's key language terms that controlled and explained behavior. I visited Korea regularly and discovered its cultural elements were also embedded in key code words. My articles on Japan were pioneering and won much global attention. Then in Taiwan and Hong Kong, I learned key Chinese terms. I first visited China in 1961. Then I edited my articles and added more for a book in 1959. I explained nemawashi or behind the scenes discussions; kaizen or continuous improvement; and tatemae/honne or façade/reality, all pregnant with cultural insight. The book is re-titled Japanese Etiquette & Ethics in Business. In mid-1962, I started to write such books full time - over 12 on Japan and Korea. Finally, in 1994, I combined 230 key Japanese words into Japan's Cultural Code Words and later added Japan's Business Code Words, beginning a series. I did this in Korea, Taiwan, Hong Kong and China and read virtually every book on the history, culture and languages of Japan, Korea and China.

Which country did you most enjoy living in and why?

Japan because I speak the language fluently; lived there for long periods; was fascinated by its unique aspects - different from both China and Korea. The Japanese imported Chinese and Korean culture around 600 A.D. and changed it fundamentally. Also the living standard and conveniences like public transportation



exceeded to Korea and China by 1960. I went to school and worked there for so long that my lifelong friends remain Japanese. The traditional Japanese lifestyle was the most physically, emotionally, spiritually and intellectually satisfying ... and Japanese girls more approachable!

Which one was the hardest and why?

China from the early 1960s to the 1980s because of the legal restraints; the government paranoia; poor public transportation; the many dialects; the sand storms and Beijing pollution. Until the 1980s, ordinary Chinese were less approachable ... again, politics, not character. Now

most of these inconveniences are gone. Shanghai and Beijing resemble New York. The Chinese are far more direct, individualistic and clever than Japanese and Koreans.

Did you suffer culture shock in any of the three? If so, in what way?

When I first ate sushi, I overcame it by washing it down with beer - magic.

Recall the embarrassments as you learned the hard way about the cultures.

In the past, I was a wandering 9th century Buddhist priest. Therefore, I felt at home in Japan and Korea - only being embarrassed at the stupidity of other Americans, including journalists who asked dignitaries often inane and childish questions.

Did your understanding of the cultures and social mores ever really assist or save you?

My early affinity for Japanese, Korean and Chinese culture plus my participation became my foundation.



Author Boyé Lafayette De Mente [center] with Prof. Bruce Wyman and Prof. Mutsuo Shukuya at a sushi restaurant in Tokyo following a lecture to businessmen and scholars by De Mente on the kata factor in Japanese Culture.

I still live like a Japanese Zen teacher, recognizing illusion versus reality. My many Japanese friends and wonderful experiences hail from my knowledge of the Japanese way. A great failing of mainstream Americans remains cultural myopia.

Why learn a difficult language when you can rely on a translator?

To feel a culture, you must know the key cultural terms. Speaking it well is even better or it is like showering while in a water-proof suit.

The Japanese think that their culture is unique and that their language in particular is impossible for foreigners to learn. What is your experience or view of this idea?

This was a pre-Tokugawa Shogunate before 1603 idea that persisted in urban Japan until around the mid-1960s. Then the Japanese-speaking foreigners on television and panelists and in public squashed it. It was still common in rural areas until the 1990s.

Many foreigners note that when they show some grasp of the local culture, say mentioning Confucius, Koreans and Chinese will also evince surprise and ask questions such as "How can you know this?", as if it is an internal family matter. Agree?

This is another outdated notion. Most younger Chinese, Japanese, and Koreans today expect foreign residents to learn the culture and history. How grave when a new businessman knows little.

Or if the foreigner reaches a high level

of understanding of the history and culture or language proficiency, he is treated as a performer and invited onto television shows where the locals can gawk and sigh in amazement - comment.

Japanese, Koreans and Chinese will understand that Westerners are intelligent like regular people.

Corporations hire expensive cross cultural trainers to orientate executives going abroad. Is this over due or wasted money because serious reading and experience will season one?

Encourage it. Many Americans sent abroad fail to perform efficiently. Reading helps, but is no substitute for a good, interactive trainer.

In global or regional diplomacy involving Japan, Korea and China and the U.S. or the West, what major errors do you see?

The key failure is not understanding the cultures, so you cannot anticipate actions and reactions and respond. Therefore, different values and goals become conflicts. But just understanding the culture does not end problems because goals can differ. However, knowing the culture tells you when to hold or fold, get your way or stop them.

How about diplomats whom you deem talented?

I no longer personally know any. American leaders still give posts to friends and donors -- stupid! Not sending a cultural expert to Iraq when Saddam was toppled was a stupid, costly mistake. A-P

Reputations On the Line: Communicate Effectively or Lose Out

BY ADRIAN JONES

To say that the Internet has revolutionised international trade over the last decade is to underestimate its importance. Thanks to the Internet, where once only substantial corporations were able to venture, now virtually anyone with something to sell and a computer has access to a world-wide market.

Direct access to overseas purchasers has delivered the means for smaller companies to prosper from international trade like never before. But as more and more companies get involved, buyers are becoming more discerning, and the competition more aggressive. It is now no longer enough to be able to supply a reasonable quality product at a good price; buyers are keenly aware that, where there were once just a handful of suppliers for any particular item a decade ago, now there are hundreds. In the U.S., for example, there are around 25 pharmaceutical distributors; in China alone, the figure is now more like 24,000. With such a huge rise in competition, both domestically and internationally, effective marketing has assumed a role of pivotal importance. But for smaller companies, developing and executing an effective marketing strategy is proving an uphill struggle.

The problem for many is that the sophistication of their marketing has not grown at the same pace as the sophistication of the market into which it's being pitched. Techniques that were once sure-fire lead generators, are now floundering in a sea of competition or battering ineffectively against the seawall of a market that has grown largely indifferent to the "cost-down" message. Worse, many businesses don't even seem to be aware of the problem they are facing, let alone making any attempt to develop strategies to improve the effectiveness of their campaigns. International marketing is perhaps seen as something that only affects multinational companies. But even if this was once true, with so many SMEs now dependent on international business, it clearly isn't anymore. Developing a marketing strategy capable of rising above the clamour of the marketplace has become vital for even the smallest manufacturer.

Yet for a successful manufacturing enterprise in Ko-

rea, China or India, it might not appear so imperative. And all the time the sun is shining, that complacency is perhaps understandable. But what happens when the sun stops shining: blocked out by the factory chimney of a competitor newly arrived next door to steal customers away? As we have seen in China especially, a fast-growing economy makes the threat posed by new market entrants a very real and ever-present one. It's a brutal truth that companies competing on price alone are vulnerable. Mitigating against the threat of competition means broadening the customer base and working hard to build value into customer relationships over and above short-term commercial considerations.

Relationships with overseas purchasers offer one such strategy. Whereas several domestic Asian markets are slowing, international markets still offer plenty of opportunity for growth. In August this year, the China Federation of Logistics and Purchasing announced a 0.9 percent fall in The Purchasing Managers' Index for China's manufacturing sector. But in Europe, many of the region's smaller states have bounced back into growth at impressive rates. According to Eurostat, Turkey's economy will have grown by 4.5 percent this year; Estonia, Slovakia and Romania are all forecast to grow at over 3.5 percent, with Poland, Latvia and Lithuania following closely behind. Much of the economic growth is still being driven by manufacturing, and this growth in demand provides a ready market for components and OEM parts made in Asia. In 2009, the European Union imported 97,383 million euros of goods and services from China alone – three times that of its next largest trading partner, the U.S.

Long-term value-added relationships with overseas buyers can offer greater stability, allowing companies to become insulated to a certain extent from the volatility of domestic markets and the worst effects of domestic price-competition. One of our clients, for example, is a U.K. based electronics company that has five suppliers in China. These relationships have been cultivated over a 10-15 year period and are the foundation for its success and for that of its suppliers, who have also prospered while watching their price-dependant competitors killed-off one-by-one by aggressive competition.

That there is value in such long-term relationships is beyond doubt. Establishing a basis for mutual trust to develop and flourish is a prime marketing objective. Western business media is awash with stories of companies being duped by unscrupulous suppliers. Even though such cases are actually comparatively rare, lurid stories in the press have made people extremely cautious about how they deal with any approaches, especially unsolicited ones. Reputation and a clear statement of business ethics are therefore essential marketing assets.

Major corporations invest heavily in managing their corporate reputations, frequently employing consultants to advise and guide strategy in each region. But in smaller enterprises, this task often falls to in-house marketing personnel who may be inexperienced in how to approach it effectively. Many of the global trade websites, such as Global Sources, Alibaba, TradeTuber and others, offer users the chance to become audited suppliers and this is a good step towards establishing credibility and trustworthiness in the international arena. But it's vital that the communication of corporate values also extends throughout the rest of the marketing communications strategy.

Proficiency with language is an important element in marketing success. Major Japanese companies such as Uniqlo and Rakuten recognise this and are now conducting all of their business meetings in English – even when no native English-speakers are participating. Poorly-conceived, inarticulate marcomms signal to a potential buyer that any relationship might be difficult to sustain. As in life, first impressions carry enormous influence, especially in the Internet age when initial judgements are made solely on the information available online. If a company's corporate ethos appears to be motivated by short-term profit rather than long-term value, it is placing itself at a serious disadvantage in the international market.

Insensitivity to the business culture of potential customers is also likely to see marketing fail. Depressioningly often, we see sales approaches that are overly familiar in tone. For example, referring to a potential customer who you don't know as "a friend" is interpreted as a clear lack of respect and is frequently fatal as a sales pitch. Another is the use of poorly-devised e-mail marketing: Spam e-mail is universally loathed in Western business and it would be difficult to think of a more damaging marketing tactic to adopt for a company wishing to build business relationships in the U.S. or Europe. Social media services such as Facebook, LinkedIn and Twitter are used a lot

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7 TIPS TO IMPROVE YOUR INTERNATIONAL MARKETING

1. **Communicate effectively.** To make that vital good first impression, you need to come across clearly. While minor language problems are not generally an issue once you have a relationship with a customer, don't rely on in-house translations for your initial approach. Remember, it's not just a case of getting the words right; the message and delivery has to be correct, too. If you are not 100 percent confident, use a professional translator for your initial marketing pitch material.
2. **Recognise the importance of reputation management.** The only information a potential customer has about you is what you send them and what they can find online. What will they find? Does it give a fair reflection of your abilities and credibility? Before embarking on your international marketing, is it worth hiring someone to critique your marketing communications and online presence?
3. **Don't be tempted to use indiscriminate e-mail campaigns.** Don't trust suppliers in the U.S. or Europe who offer to sell you bone-fide lists of opt-in business subscribers; they are invariably frauds. If you want to use e-mail as part of your marketing, do so through a reputable agency who can help ensure your message is going to the right people and is presented in a way that's not going to damage your reputation.
4. **Use every opportunity to build online reputation.** Become an accredited supplier on global trade websites or join an international trade organisation. Seek positive news coverage in the trade magazines popular in the regions that you are interested in.
5. **Use social media.** Services like Facebook and LinkedIn are becoming increasingly popular as a way of networking internationally, giving you the opportunity to establish personal relationships with potential sources of information and contacts. A company blog, if well written, can be an excellent way to illustrate the positive core values of your business. PR companies can be hired to write and manage the content for you.
6. **Understand your market.** The importance of doing your background research cannot be overstated. Who are your competitors? What tactics do they use? Do you understand the relevance of your product to the market? Are you sure you know what buyers are looking for? If you have any doubts, it may save you a great deal of time and money to commission some market research to come up with the answers.
7. **Understand the business culture of your target market.** One of the biggest errors that can be made is assuming that people do business in the same way you do. If in doubt, seek advice before devising your marketing strategy.

Vietnam Waits (and works) in the Wings: The Next Asian Technology Tiger

BY ANURAG SHUKLA

China, India, South Korea, Singapore and the rest of the Asian elite economies may soon have to make room for Vietnam. The former French colony is well on its way to becoming a powerhouse and is gearing up to join the aforementioned nations on the shortlist of Asian technology tiger economies.

After years of isolation, in 1986 Vietnam began working to open itself up, liberalize and transform into a modern market economy. This reform process, referred to as Doi Moi (renovation), has had enviable results to date. As mentioned by Business Advantage Vietnam in its article "Economic update: Asia's next tiger economy?", the country's gross domestic product has trebled in the last ten years, from \$27.5 billion to \$89.1 billion in 2008. The article quotes the United Nations Conference on Trade and Development, which, in its 2008 Investment Policy Review of Vietnam, said that the country has improved dra-

matically in the 20 years since Doi Moi was first enacted.

While Vietnam has largely become competitive in its own right, the spillover effects of China's own integration into the world economy may have contributed in no small part to Vietnam's success. Experts such as Thomas Lairson, author of the paper "Vietnam, Flying Geese, and the Globalization of China," have said that Vietnam has benefited greatly from China's success, the fact that Chinese labor costs are now escalating, and the existence of such key factors as international global knowledge and technology networks, as well as the linkages of these networks to global markets and multinational firms that exist in the region thanks to the success and preexisting activity of nations like China. That said, Doi Moi has enabled Vietnam to take advantage of this windfall in ways that would have been impossible for the country had it not undertaken said reforms.

However far Vietnam has come — and it has indeed come very far compared to the pre-Doi Moi period — much still needs to be done before Vietnam can truly join the ranks of the Asian tigers. As many an analyst has pointed out, the country needs to conceptualize and implement many other key reforms and take advantage of certain opportunities if it is truly to improve its prospects.

Building Technological Competitiveness

Doi Moi has served to reform much of the Vietnam-



ese economy. In order to do so, it has had the improvement of the country's technological competitiveness as one of its key goals.

As quoted in the Business Advantage Vietnam article, Thomas Siebert, chair of the American Chamber of Commerce in Vietnam, says that the Vietnamese government has become more business-friendly over the years, and describes this as one of the key attractions of the Vietnamese economy.

The article says that one of the key effects of Doi Moi has been the enactment of laws that have sought to encourage foreign investment and domestic private investment. A law on Investment and a Law on Enterprises were passed in July 2006 in order to place both domestic and foreign companies on an equal legal footing.

Underpinning and supporting these points, the Vietnamese government has enacted a wide range of incentives, such as land, tax and accounting incentives, in order to encourage investments in and the development of key strategic sectors, many of which focus on or touch on technology. Some of these sectors include biotechnology, information technology and infrastructure. These incentives were focused particularly on getting businesses to set up shop or otherwise invest in Vietnam's various industrial zones, some of which are located in less-developed provinces and areas. Thanks to these incentives and other benefits like tax holidays, lower corporate taxes and labor rates that are very competitive in the foreign labor market, many major foreign investors such as Intel - which opened a \$1 billion assembly and testing facility in Ho Chi Minh City - have made significant investments in the country.

Also, the Vietnamese government, realizing the importance of building the country's high-technology competency upon its competitiveness, has remained committed to making high technology part and parcel of many an industry. For instance, the government's

FACTOIDS

- Goldman-Sachs forecasts that the Vietnamese economy is to become the world's 17th largest by 2025, with a nominal GDP of \$436 billion and a nominal GDP per capita of \$4,357.
- PricewaterhouseCoopers has said that the Vietnamese economy could be the most rapidly growing emerging economy by 2025 — and could potentially approximate 70 percent of the size of the economy of the United Kingdom by 2050.
- The Vietnamese economy was the world's second-fastest growing economy in 2000-2002; even during a global recession, it grew 6 percent to 7 percent per year. In 2005, Vietnam's GDP growth was 8.4 percent, second only to China's.

ten-year Master Plan for Textile and Garment Development (2001-2010), encourages the adoption of advanced production technology into garments and textile development and manufacturing, as well as the development of higher-value textile products instead of mere basic goods.

The government, desirous of a comprehensive solution, is also continuing to develop initiatives to build the technological competency of its people. One such initiative is aimed at boosting the expertise of the country's IT sector. A 2009 report by the Global Times says that the Vietnamese government is to focus on developing the IT sector in the next seven years, a statement made by Nguyen Thien Nhan, Vietnam's minister of Education and Training, at the 14th conference on Vietnam Information and Communication Technologies Outlook. In 2008, according to Vietnam's Ministry of Information and Communications, the country's IT sector grew 49 percent, the hardware industry growing 19 percent and the software industry and services grew 87 percent, and the sector earned \$4.74 billion in revenue. The report said that the government was to invest approximately 900 billion Vietnamese dong, or \$50.54 million, to train its IT specialists over the next few years.

Secondly companies such as Internet networking specialist Cisco Systems play a strong role in Vietnam's competency building. Through its Channel Partner Program, Cisco works with local firms to teach them all about network solutions and upgrade their capabilities, providing both extensive training and capability certification — benefits that can immensely strengthen these local firms and can even diffuse to other Viet-

namese firms.

Today, the government's drive to boost the country's S&T competitiveness continues apace. Last Sept. 1, as reported by news site Look at Vietnam, a decree aimed at encouraging international investment in the country's science and technology research facilities, crafted by Vietnam's Science and Technology Ministry's Technology Assessment and Inspection Department, became effective. This decree revolutionizes the country's S&T status by superseding all prevailing laws regarding international cooperation and investment in the country's science and technology sphere. The decree aims to encourage investment in, among other areas, research in the natural sciences, automation and electronic mechanics, nuclear and alternative energies, space science, biotechnology, waste treatment technology, services transfers, and high-technology personnel training.

In addition, Vietnam has continued to invest in state-of-the-art technologies, such as those for power generation. For instance, the country has begun to invest in nuclear power, with Russia as its foreign partner, making arrangements to construct the country's first nuclear power plant in Ninh Thuan province, and selecting ten institutes and universities to train staff to operate this and succeeding nuclear facilities. The government has also begun to explore clean-technology investments, such as wind power and biofuels, in order to diversify its energy resources, lower consumption of "dirty fuels," and spread risk.

Challenges and Future Prospects

Vietnam has indeed come very far in the last two decades, but it still needs to improve in certain key areas and must also take advantage of its untapped potential before it can become a bona fide Asian tech tiger.

For one, as explained by Lairson, there is an over reliance on trans-national firms — state-owned enterprises — to bring in national investment needed to boost local technology infrastructure and know-how.

Secondly, the country still needs to improve its infrastructure in order for it to improve its technological efficiency. Business Advantage Vietnam points out that a lack of infrastructure capacity was partly responsible for domestic economy overheating in 2007, which led to the economy peaking and experiencing a slowdown approximately nine months before the rest of the world went into recession. Even today, this infrastructure lack results in power outages, and is one reason why foreign direct investments do not always work out to the country's advantage.

Thirdly, Vietnam's peculiar demographics, say Lairson, make for an excellent emerging advantage. Vietnam ranks within the top ten countries worldwide thanks to its population—a hair under 86 million—and a long period of war (from 1930 to 1975) was followed by a tremendous baby boom that boosted the country's population by 40 million in the last three decades alone. Consequently, nearly 60% of the population is under 30 years of age, creating an enormous potential advantage: a young labor force with some English competencies, approximately 1.2 million of who enter the job market every year. This unique demographic can be a force to be reckoned with if properly taken advantage of. A-P

COMPANIES MENTIONED IN THIS ARTICLE

Intel
<http://www.intel.com>

Cisco Systems
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Japan-China Tensions Threaten Economic Ties

BY VICTOR FIC

The Japanese government accused China on Aug. 10 of sending drilling technology to a gas field in the East China Sea that is a source of dispute between the two countries.

It is called Shirakaba in Japan and Chunxiao in China. Katsuya Okada, Japan's foreign minister, confirmed on Aug. 10 that he had intelligence that the Chinese were transporting drilling equipment in the several days preceding and asked about them through regular diplomatic channels.

Pictures taken from the air by the Japanese air force on daily flights to gather data indicate that the shipments and workers were preparing to drill. Okada said that China informed Japan that the stuff was sent there for repair work and added that he "strongly expects" that China will not engage in extracting gas from the field.

The cause of the ill will is an incident in early August, when a Chinese fishing boat crashed against two Japanese coastguard vessels close to an island chain that the two countries claim to own. It is called Senkaku in Japan and Diaoyu in China. Taiwan also claims it. The Chinese side is very angry because Japan arrested a Chinese captain of a fishing vessel. It also cancelled talks with Tokyo that were scheduled to address the option of joint exploration of the field.

Beijing summoned the Japanese ambassador five times after that and scuppered a visit from a senior Japanese lawmaker. It also demanded that the Chinese captain, whom the Japanese detained, be immediately released.

Both Japan and China are thirsty for energy to fuel their industries. Japan imports most of its oil from the distant, troubled middle east, with its super tankers sailing through choke points such as the Straits of Malacca off Malaysia - and past increasingly assertive China. With China undergoing its first industrial age, it also needs energy.

Therefore, both countries value energy and mineral deposits that are nearby such as the disputed field of Shirakaba or Chunxiao. Also, the gas field there rests within both countries' exclusive economic zones and has long divided them. China initiated construction there years ago, provoking Japan. The two agreed in June 2008 that Japanese energy companies can invest in the gas field's development. But progress on cooperation failed when Tokyo reported seeing signs of unilateral operations by Chinese ships in the area. In May, China's Premier Wen Jiabao and Japan's then-Premier Yukio Hatoyama concurred that they would restart official talks on joint exploration and common benefit for mutual economic advantage to maintain peace. However, Beijing ended talks planned to defuse the diplomatic row.

As for the larger island chain, it is rich in oil, gas and fish stocks and adds to the overall standoff.

In China, there still is resentment for Japan's colonization of Manchuria starting in 1931. Imperial Japan carved the puppet state of Manchukuo out of a weaker China's three northernmost provinces. In 1937, Japan initiated full scale war against its neighbor.

Several hundred people protested in at least five Chinese cities in mid August, with Aug. 10 the anniversary of Japan's Manchurian move.

And in the southern city of Shenzhen, several hundred people gathered at a public square to call for a boycott of Japanese goods. Their aim is to harm Japan's exports, with the latter vulnerable because the mainland is the number one export market. This concerns Japanese policy makers and exporters, who are limping through a long term recession. In fact, in past years, some leading Japanese manufacturers have called upon their government to build trust and win good will with China by facing the past so Japanese bidders can win projects, investment in China and sell there. But powerful nationalist forces in Japan, exemplified by the hundreds of conservative politicians who visit the notorious Yasukuni Shrine, have blocked or diluted such "soft power" measures.

Japan experts say that Tokyo had hoped that economic interdependence and the rise of a new generation in China that does not recall the war would lead Chinese animosity for Japan to lessen over time, but recent agitation seems to dash these

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hopes.

The anniversary was the top news on China Central Television's noon broadcast, but the boat incident wasn't mentioned, likely to suppress public anger. "We believe the Chinese people will express their demands in a rational way," Chinese Foreign Ministry spokeswoman Jiang Yu said on Aug. 10. Another wrinkle is that the Chinese government is also nervous that social and economic frustrations related to income disparity, migrant workers or joblessness will erupt into protests directed at it.

As Taiwan also claims sovereignty over the Diaoyudai Islands, sometimes activists on both sides of the Taiwan Strait will unite to criticize or attack Japan. Chinese in Hong Kong have also been known to jump into the protests, with one activist drowning in the mid 1990s when he struggled against a Japanese boat.

In spring 2005, anti-Japan crowds reached into thousands of demonstrators, also showing that the actions can escalate. A-P

Philippine Economy to Slow Next Year



Antonio Oquias | Dreamstime.com

BY VICTOR FIC

The high powered Congressional Planning and Budget Research Office in the Philippines said on Sept. 9 that the economy will slow down during the first year in office of President Benigno Aquino III. That pessimistic forecast came during its 2011 debrief on the budget.

"After expectations of an upbeat performance for the rest of the year, prospects for 2011 in general point to a slowdown in economic growth. Projections by the Asian Development Bank, the International Monetary Fund and the World Bank show that the country will lag behind its ASEAN counterparts," the CPBRO said.

The body forecasts that gross domestic product growth will come down to 4.1 percent-5.1 percent in 2011 from the higher level of 6.4 percent-7.3 percent in 2010. It claims that this is attributable to election spending and the European and American fiscal crisis. This latter factor is lowering the chances for trade, investment and remittances from citizens who go abroad to work and then send money home.

It also said that although the Aquino government faces pressure on the budget deficit, it will likely go over the its P290-billion ceiling for 2011 and reach a new low of P318.8 billion. This is a major goal to ensure that interest rates do not shoot up and the currency decline. However, controlling the national deficit must be a surgical or limited operation. This means that it should not result in cuts to productive investments, especially if there is "enough fiscal space under conditions of public debt sustainability and a well established credible exit strategy that would allow additional spending without rattling the markets," it noted.

The CPBRO encouraged officials to boost revenues and growth in the domestic market. It recommended the strong pursuit of public-private sector tie ups for infrastructure investments. Also, it pushed the government to ensure poverty reduction increases.

Furthermore, it requested that the government focus on making new jobs rather than offering cash transfers to the destitute. "While the benefits of the conditional cash transfer program of the government have been valuable, the provision of employment opportunities should be pursued as a more sustainable way of reducing poverty," it explained.

As for the Aquino administration's initial budget proposal, the social welfare and development department won the largest increase of 122.90 percent to P34.3 billion from its 2010 budget of P15.4 billion. Most of this is slated for the expanded conditional cash transfer program that dates to the Arroyo administration.

In contrast, the budgets for textbooks, irrigation, farm-to-market roads, and construction and maintenance of roads and bridges all went down, leading critics to argue that the talents and potential of the poor will not be developed.

The subject of joblessness looms large in elections, especially because scores of skilled people in major cities cannot find remunerative work. That is the negative conclusion of the economic planning of minister

Cayetano Paderanga. The unemployment rate fell to 6.9 percent in July, because an improving economy created some positions, especially in farming, the government reported the day before that. "While the Philippine economy has shown relative improvements in the labour sector in July 2010, the quality of employment remains a concern," Paderanga said in a statement.

Job holders in the agricultural sector increased 3.1 percent in July. This accounts for one-third of everyone holding a job. But it adds less than one fifth or 20 percent to the country's economic output, too little to lift it out its developing country status.

He also offered the advise that the government must follow policies that lead to more investment,

As for the Aquino administration's initial budget proposal, the social welfare and development department won the largest increase of 122.90 percent to P34.3 billion from its 2010 budget of P15.4 billion. Most of this is slated for the expanded conditional cash transfer program that dates to the Arroyo administration.

improve productiveness of workers and increased per capita income. One in three people are still deemed poor. "This in turn will spur the productive sectors of the economy and encourage the generation of more stable-paying employment opportunities," he said.

Then he added that the government should put in place policies to reduce the number of people who have enough to be categorized as educated, for instance college graduates, but who still cannot find work in their own country but are too advanced for blue collar work abroad.

Aquino promises to change all that, but skeptics argue that it will take many good governments years for the country to fulfill the dream that its now disappointed US ally had decades ago. A-P

Specter of ‘Three Highs’ Returns to Korea

BY LEE JONG-HEON

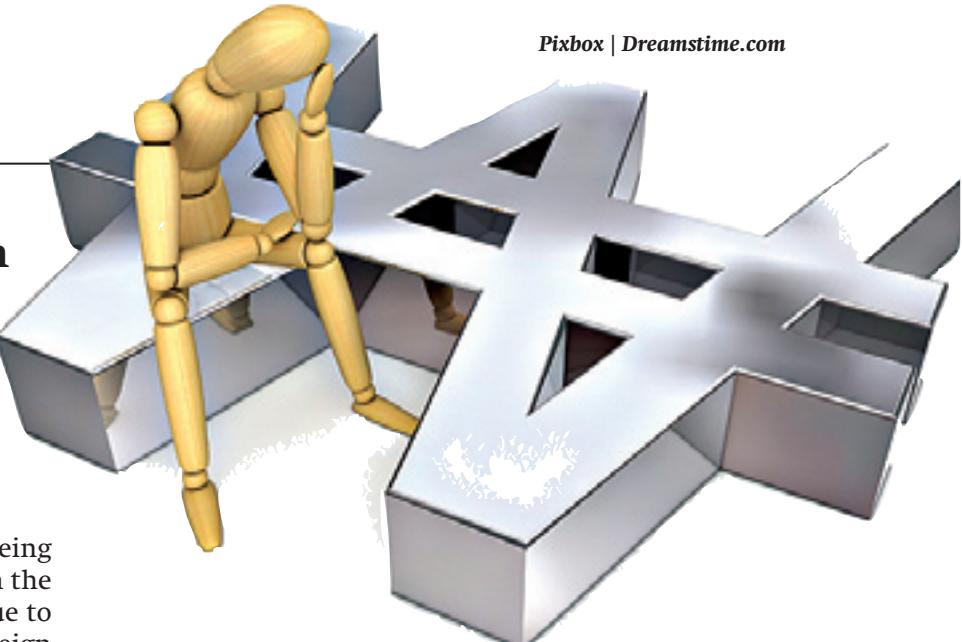
South Korea’s economy is facing downside risks from higher costs of oil and raw materials, higher value of the local currency and higher interest rates - known as “the three highs.”

Asia’s fourth-largest economy is hailed as being the first among major economies to recover from the 2008 global recession, an achievement mainly due to “the three lows” - low crude oil prices, low foreign exchange rate and low borrowing costs.

But the key indicators have recently reversed direction and begun rising, with warnings that South Korea’s export-driven, energy-intensive economy could sink into a double-dip recession if the country fails to overcome the return of the specter of the three highs.

Higher prices of crude oil and raw materials pose a direct threat to South Korea, the world’s fifth-largest oil importer and second-largest liquefied natural gas buyer. It imports almost all of its crude requirements, more than 80 percent of which come from the volatile Middle East. The country is bringing in just 8.1 percent of its total requirements from overseas fields where it holds stakes.

The price of Dubai crude, the benchmark for South Korea, soared to \$80 a barrel in August, from \$70 in July. State-run Korea National Oil Corp. forecasts the prices to keep an upward trajectory because of international sanctions on Iran, the world’s second-largest oil exporter and holder of the world’s second-largest gas reserves.



Making matters worse, South Korea may lose oil supplies from Iran, its fourth-largest source of crude, if it joins international sanctions on the Islamic country accused of pursuing nuclear weapons.

The United States has urged South Korea to follow Europe’s example in banning business ties with blacklisted Iranian entities. After June’s U.N. sanctions resolution against Iran, the United States legislated its own tough sanctions centered on penalizing foreign companies that help Iran’s energy sector and banning U.S. banks from dealing with foreign banks that do business with blacklisted Iranian institutions.

South Korea is not in a position to ignore the request from its key ally. Seoul has heavily relied on U.S. protection for its national security, while focusing its resources on rebuilding the war-torn economy, which now stands as the world’s 13th biggest. For now, Seoul now badly needs U.S. cooperation to rein in North Korea, which sunk a South Korean warship last March

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that left 46 sailors dead.

But taking measures against Iran would backfire, hurting South Korea’s energy security and damaging companies doing business in the Middle East nation that has placed a number of orders for South Korean builders and traders.

Iranian oil accounts for 10 percent of South Korea’s total import of 836 million barrels last year. Seoul’s oil refiners expressed concerns about possible supply disruptions from Iran. They may not be able to import crude from Iran as money transfers with Iranian exporters have been frozen following U.S.-led sanctions. They should depend on the spot markets to make up for shortfalls if supplies from Iran are disrupted.

GS Engineering & Construction has already called off a \$1.2 billion gas project in Iran following sanctions. Hyundai-Kia Motor group has suspended shipments to Iran. They have exported more than 3,000 units a month to Iran. Traders of steel petrochemical products also stopped dealings with Iran due to frozen money transfers. Daelim Industrial, which is building a \$612 million gas plant and a \$111 million gas pipeline in Iran, is worried about toughening regulations in financial transactions with Iran.

“The risks in Iran could damage South Korea’s energy security and deliver a significant blow to local corporations and markets,” said Bae Sang-kun, director of the economic policy research division at the Federation of Korean Industries.

Bae and other economists said South Korean manufacturers are also suffering from rising costs of natural resources, such as iron ore, coal and other base metals. Steelmakers were forced to agree to pay nearly double for iron ore imports this year based on new quarterly contracts instead of the 40-year old annual benchmark system.

POSCO, the world’s third-largest steelmaker, spent 13 trillion won (\$11 billion) in buying raw materials in 2009, including 4.4 trillion won on iron ore and 4.2 trillion won on coal, compared with 3.17 trillion won in net profits, down 28.7 percent from 2008. Its bills are much steeper this year as global suppliers have demanded prices of 2010 shipments of iron ore and coal should rise by 90 percent and 50 percent, respectively.

South Korea’s imports of rare earth metals such as lithium, cobalt, and platinum, which are critical for the manufacturing of many high-tech goods including super conductors, hybrid cars, fiber-optic cable, and cell phones, rose substantially over the past four years on increased demand. By volume, rare metal imports shot up 60 percent from 2005 to 3.29 million tons in 2009, according the Korea Customs Office.

The Public Procurement Service, a state body that stockpiles strategic commodities, forecast prices of the rare earth metals to get stronger in the wake of export restrictions of China that control 95 percent of the world’s production of rare earth metals.

The sharp gains in energy import costs have boosted inflationary pressure, forcing the central Bank of Korea to raise interest rates at the risk of sapping domestic demand and corporate investment and eventually slipping back to into a slump.

The bank jacked up the benchmark rate by 0.25 percentage point in July from a record low of two percent, ending 16 straight months of a standstill that helped the economy recorded six straight quarters of growth after contraction amid the worldwide downturn.

The ban left the rate unchanged in August, citing concern about slowing growth in the world’s major economies, but strongly hinted at a further rise as early as September, by saying that consumer price inflation is likely to gather pace.

Big Economic Challenges for New Japanese Cabinet

BY VICTOR FIC

Japanese Prime Minister Naoto Kan shuffled his cabinet on Aug. 9, retaining five members in an attempt to focus on reviving the country's moribund economy.

He kept Yoshito Sengoku as the chief cabinet secretary, the central post, and Toshihiko Noda will oversee fiscal reconstruction as finance minister. However, the prime minister made new appointments for the 12 other posts, including those of health, labour and welfare minister and economy, trade and industry minister.

The top challenge that the new team faces is to address the rising yen. Japanese monetary officials made their first market intervention in over six years in the mid year, so the rapid appreciation of the yen was stopped for the short term. But few are optimistic. Noda must work hard to with the Bank of Japan to block a rise in the yen's value that will raise the cost of Japan's exports in foreign markets.

As for a growth plan, Kan proposes a supplementary budget for this fiscal year. It spans more stimulus measures, which some dislike as a failed policy from the past that only deepened Japan's national debt. But considering the dire outlook with very low growth, others praise it. Japan must have a growth strategy to revitalized private companies and boost their global competi-

tiveness.

The budget demands of ministries for the coming fiscal year come to over 96 trillion yen. This is far beyond this fiscal year's budget. The national finances are pinched, so the requests this year were reduced. But some warn that the lower operating funds will hamper the ministries and damage economic growth. It demonstrates that Japan, mired in a recession that its people call "the ten lost years," has no outright popular or sure fire options. They all carry a cost somehow and may yet fail as the population falls from 125 million to 95 million or so in the coming decades. This means fewer Japanese working and paying taxes to support for pensions and social services.

Also, prefectural economies are hurting. Funds should grow for projects that will push the economy and foster new jobs.

Last year, the ruling Democratic Party of Japan's manifesto for the House of Representatives elections promised benefits such as child-rearing allowances and toll-free expressways. But experts warn these measures will lower revenues flowing into the national coffers and so do nothing to promote growth. If Japan is to improve its fiscal conditions to assure a reliable source of revenue for social security spending, one option is to hike the consumption tax rate. This is not popular with a public addicted to consumerism, but some say it is inevitable. In fact, Kan seeks bipartisan talks on raising the consumption tax and social security with the opposition parties so they agree to the policies in the national interest.

Japan will attempt to defuse global criticism of its



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yen-selling intervention policy. It will underscore the harm that the currency's rise does to an economy stuck in deflation, the finance minister said on Aug. 9. The country's trading partners fear that others might imitate it and boost lagging exports through competitive devaluation. This could end the weak global economic recovery.

But Noda said that Tokyo would do it again if necessary. In its largest single-day action, Tokyo offloaded up to 1.86 trillion yen, equal to \$21.67 billion, after it leapt to another 15-year high against the dollar.

Noda explained that the yen's sharp rise shifted away from the economy's fundamentals. Therefore, Tokyo stepped in to currency markets. He had no specific currency level as his target when he did so.

He specified that, "there are various opinions. But Japan's stance is that a prolonged yen rise is undesirable as the economy remains in a severe situation with ongoing deflation. It is important to consistently ex-

plain our stance to the international community."

But Tokyo quickly provoked criticism. For instance, Jean-Claude Juncker, chairman of the euro zone finance ministers and Luxembourg's prime minister, rebutted that Japan's unilateral intervention to weaken its currency was not welcomed and that the euro zone had told Japan of its disapproval. The market does not want to push the dollar down too far against the yen after Tokyo's action.

"It seems that Japan has shifted its argument to focus more on deflation and less on exporters," said Kimihiko Tomita, head of foreign exchange at State Street Bank & Trust Co in Tokyo.

Japan's attempts at reviving its economy is additionally hindered, according to many Japan experts, by the weak political system. The prime minister has historically had less power than the professional bureaucracy. Many accuse the latter

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"Looking ahead, the (bank's) Monetary Policy Committee will conduct monetary policy in such a way as to help the economy maintain price stability, while sustaining sound growth under an accommodative policy stance," the BOK said in a statement.

Kim So-young, economics professor at Seoul National University warned against further rate hikes, saying the South Korean economy is vulnerable to external conditions, such as in the U.S. housing market, Europe's debt woes, and slowing demand from China. "The monetary policy needs to be conservative to keep the economy on a recovery track," Kim said.

Kim Jong-shik, Yonsei University professor, is also opposed rapid rate hikes, citing lingering external risks. "Risk in Iran could be increasingly real, hurting South Korea's export-dependent economy," he said. Higher energy costs have also increasingly offset South Korea's exports, resulting in declining current account surplus. The country's current account surplus is projected to shrink from \$11.6 billion in the first six months of the year to some \$8.4 billion in the second half, according to the private Korea Economic Research Institute.

Exports, which alone have powered South Korea's economic growth in recent years amid a prolonged slump in private consumption, is likely to lose steam following steep appreciation of the local currency. Exports account for nearly half of the nation's gross domestic product.

The won that hovered 1,500 per dollar following the 2008 global financial crisis is expected to appreciate to 1,010 in 2011 before rising further to 977 in the following year, according to a report by IHS Global Insight, a U.S.-based economic and financial data provider. The stronger won against the U.S. dollar hurts price competitiveness in South Korea's exports by

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by business people now and can be a powerful way to spread either positive or negative anecdotes about a particular business. The damage caused by a clumsy approach can spread very far, very quickly.

Business today, even for small companies, is a global affair. The ease with which business can be now conducted around the world would have been unthinkable 20 years ago. For small enterprises, the opportunities are boundless. Yet it appears ever more certain that success or failure in this modern world will be dependent on how well businesses can adapt to the new global business culture. Learning to speak its language, learn its

Exports, which alone have powered South Korea's economic growth in recent years amid a prolonged slump in private consumption, is likely to lose steam following steep appreciation of the local currency. product.

making them more expensive and cuts into exporters' earnings.

The authorities have intervened in the market to tame the rapid rise of the won, which could threaten the fragile economic recovery. Price competitiveness is critical for South Korean goods at a time when the rapid expansion of China, South Korea's biggest trading partner, is cooling while the recovery in the European Union and the United States, its second and third largest markets, respectively, are slowing.

South Korea's economy expanded 7.2 percent in the second quarter from a year earlier and gained 7.6 percent year-on-year in the first half. Upbeat government revised upward its growth forecast for this year to 5.8 percent from 5 percent.

about the data, the growth forecast for this year to 5.8 percent from 5 percent.

But economists warn the specter of the three highs could bring the economy back into recession. The government front-loaded over 60 percent of its annual budget during the first half of this year as part of efforts to accelerate an economic recovery and boost votes for ruling party candidates in June local elections and parliamentary by-elections in July.

Just after the two rounds of elections, the government raised public utilities fees that have long been frozen to curb inflationary pressure.

Lim Kyong-mook, an economist at the state think tank Korean Development Institute, said hikes of public utility prices and higher energy costs are building inflation pressure.

"The three highs would increase production costs of local companies and weaken their price competitiveness (in) overseas markets, putting the brakes on the fledgling recovery, as the government's fiscal stimulus is waning in the second half," said Yu Byung-kyu, an analyst at the Hyundai Economic Research Institute. □

customs and to communicate well, are the foundations on which success is built. □

About the Author

Adrian Jones is managing director of Eido Public Relations Ltd., (www.eido-pr.eu) a technical PR and b2b marketing agency with offices in London and Tokyo. Adrian is a qualified electronics engineer, former technical journalist and public relations professional with 20 years of experience in international business. Adrian is a member of the Chartered Institute of Public Relations and a fellow of the Institute of Commercial Management.

Sanctions on N.K. Push it Closer to its Chinese Ally

BY LEE JONG-HEON

North Korea watchers and government officials in Seoul have long been puzzled about how the cash-strapped communist country could pay bills for ever increasing imports from China, which has served as an economic lifeline for the isolated economy.

North Korea has not posted a surplus in foreign trade for the past two decades. Last year's deficit reached \$1.3 billion from its total foreign trade of \$3.4 billion, according to South Korea's trade agency. The deficit accounted for over 7 percent of the country's gross national product of \$18 billion, estimated by the United Nations.

Accumulated trade deficits have amounted to as much as \$10.3 billion since 2000 and \$15.7 billion since 1990, which raise doubts that the country holds foreign currency reserves to increase imports of goods and energy sources.

Growing deficits were mainly made from trade with China, its biggest trading partner and last remaining communist ally. The North's trade deficit with China jumped to \$1.1 billion last year following \$1.3 billion in 2008, compared with \$200 million in 2002 and \$410 million 2000.

Accumulated trade deficits with China since 2000 stand at \$6 billion. Shipments from China increased to \$1.9 billion last year and \$2 billion in 2008 from \$450 million in 2000 and \$470 million in 2002. The deficit stems



Ying Feng Johansson | Dreamstime.com

from a sharp rise in imports with exports remaining sluggish.

How can a small country suffering such an enormous trade deficit afford to keep expanding imports? One possible answer is that China may have offered a different pricing formula for North Korea, selling goods and resources at lower prices for political purposes.

But Lee Suk, who has closely analyzed trade between North Korea and China at the state-financed Korea Development Institute in Seoul, ruled out the possibility. After conducting intensive research on prices of goods, China exported to North Korea and other countries, Lee said he found no evidence that Beijing has offered lower export prices to the North than those applied to other partners. "Trade between North Korea and China has been conducted on a commercial basis, and it is unlikely for China to offer a lower pricing system," Lee said.

Lee stressed that his research shows that North Korea has used cash earned from trade with South Korea and Japan to pay for goods from China. "South Korea and Japan are virtually the only two countries where North Korea saw a surplus in bilateral trade," Lee said. Given the North's exports to Japan were meager and have been suspended since 2007, surplus from trade with South Korea was mainly used for Pyongyang to pay bills for Chinese commodities, he said.

"Increased imports of North Korea from China since the late 1990s were directly related surplus in trade with South Korea," Lee said. South Korea had pushed for reconciliation towards the North since 1998, launching massive cross-border projects that served as a major cash cow for Pyongyang.

"As cash earned from inter-Korean trade and projects increased, the deficit in trade with China also rose, showing direct causal relationship between the two factors," he said.

When the North earned \$180 million from the South in 2003, Pyongyang's deficit in trade with China marked \$232 million. As cash from the South rose to \$233 million in 2005, the North's trade deficit with China increased to \$582 million. The North earned \$534 million in dealing with the South in 2007 when Pyongyang lost \$811 million in trade with China.

Lee's research indicates that the South's ban on trade with the North as a punishment of its torpedo attack has delivered a major blow to the communist nation. South Korea has cut all trade links and most aid with North Korea and blocked its commercial ships from sailing through the South's waters, as part of countermeasures to the North's submarine attack on the South's warship in March that left 46 sailors dead.

The KDI estimates the sanction would cost the impoverished neighbor over \$280 million annually. The loss was calculated with regard to a \$234 million surplus the North posted in trade last year and \$50 million profits from trade of processed goods. "Without a cash inflow from the South, the North could not import from China, resulting in the North's decreased foreign trade," a KDI report said, adding that China's participation in sanctions would put North Korea under a situation where "it has to think about its life or death."

The South has decided to maintain the inter-Korean joint industrial complex in the North's border town of Kaesong, but said it would determine the fate of its industrial park depending on Pyongyang's attitude on the sinking incident.

More than 120 South Korean manufacturing firms are currently operating in the Gaesong complex, employing some 44,000 North Korean employees. South Korea currently pays more than \$78 to each North Korean employee per month - but most of that money is thought to go directly to the North Korean government. Its total payments, including insurance fees, amount to over \$50 million a year. The figure is significant given the North's exports that stood at \$1 billion in 2009.

Seoul's Vice Unification Minister Um Jong-Sik described the ban on inter-Korean trade as "the most punishing unilateral action the South could take against the impoverished North." Um said the North's dam-

age expands to \$300 million if it includes losses caused by Seoul's ban on all North Korean shipping from the South's sea-lanes. Seoul had halted relief food and fertilizer aid to the North for the past two years, citing its growing nuclear and missile threats, until it recently donated 5,000 tons of rice for flood-stricken North Korean people.

Ironically, the South's ban on trade has forced the North to deepen its economic reliance on China, weakening Seoul's leverage over the destitute neighbor. "The South had to impose the sanctions because if the North gets through the incident without paying a price, it could embolden the North Korean military," said prof. Jo Dong-ho of Seoul's Ewha Womans University. "Ironically however, the measure will weaken Seoul's leverage and force the North to further depend on China," he said.

The North depended on China for 78.5 percent of its external trade last year, up from 24.9 percent in 2000 and 56.7 percent in 2006, according to Seoul's state-run Korea Trade-Investment Promotion Agency.

Increased imports from China were mainly due to higher energy bills driven by stronger prices of oil and raw materials. The North's main import items from China include oil and energy-related resources, grains, electronics and machinery, whereas export items are such cheap items as fishery, woods and steel products.

China has provided between 70 percent and 90 percent of North Korea's oil and more than one-third of its food, according to government officials in Seoul. More than 80 percent of commodities handled in the North's markets are from China and some 50 percent of burgeoning merchants are Chinese residents in the North, they say.

The North's dependence on China is expected to further strengthen as Pyongyang is trying to get through international sanctions by expanding economic ties with Beijing, which also wants stronger relations with the North to cope with pressure from the United States and Japan.

After the United States announced additional sanctions on Pyongyang, the North's reclusive leader Kim Jong-il in late August travelled to northeastern Chinese provinces of Heilongjiang, Jilin and Liaoning that account for 70 to 80 percent of the North's imports from China.

His Aug. 26-30 trip was focused on Changchun, Jilin and Tumen near the North Korean border, often referred to as "Chang-Ji-Tu," where China is spending \$30 billion until 2020 to transform it into a new economic hub. Kim's summit talks with Chinese leader Hu Jintao were held in on Aug. 27 in Changchun, the capital city of Jilin Province bordering the North.

Following the visit, the North's state-run Rodong Sinmun praised China's economic development, a rare comment by the newspaper of the communist Workers' Party. "Today socialist China is growing rapidly, guaranteeing the country's prosperity," it said. China's media reported that Kim toured factories and expressed interest in how China had sought to reinvigorate a region just across the North Korean border.

According to Ahn Byung-min, a researcher in charge of inter-Korean ties at the Korea Transport Institute, China

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World Chemical Leaders Event Lures Decision Makers

BY ROBERT EBERENZ

Recent economic factors have dramatically changed the face of the chemical industry across the Globe, forcing leaders to adapt and offer new opportunities for innovative start-ups that are capable of meeting unique customer demands. Keeping one eye on the competition and the other on competitive advantage is a must for success in the dynamic chemical production business. To stay ahead of the pack, producers are constantly evolving to offer superior products.



In an effort to address these crucial aspects of corporate development, global decision makers in the chemical business are clearing their schedules for a gathering of the most influential and innovative minds in the industry on Dec. 17-18. The Global Chemical Leaders Summit-2010 (GCLS) in Gujarat, India is slated to make waves as it enables investors, corporate leaders, and innovators to exchange ideas and secure vital connections in a world class forum.

One of the most exciting aspects of this year's GCLS has to do with where it will be held. India's chemical market is approaching a tipping point in its growth trajectory and could soon break out as a major competitor in the global market.

The chemical business is nothing new to India, since some of the first products to be produced in the country following independence in 1947 were chemicals. However, the market remained extremely fragmented until the early 1990's, when the cooperative initiatives to promote growth across the entire country began. Chemical production in India offers some of the most impressive sustained growth rates of any manufacturing market in the world. With growth of 10-12 percent per annum, representing approximately 13 percent of India's GDP, India represents less than 3 percent of total global production. Compared to the nearly 15 percent of global production in China, a country with a similarly sized population, India has ample potential to grow at or above historical rates for years to come.

The strongest and most exciting avenues of chemical production in India are the agrochemicals, petrochemicals, and pharmaceutical chemicals businesses. Room for growth in the pharmaceutical chemical space on an international level is notably large, due to the relatively low ratio of drug prices to bioengineering sophistication in India that allows Indian drugs to compete in numerous foreign markets.

Beyond export expansion, the domestic chemical sector in India offers a mass of evidence to support excellent growth as well. India has extreme expansion capacity in domestic demand growth for petrochemicals and their derivatives, due to end market consumption averages, which are below global trends. The typical Indian consumes less than 20 percent of the world average in polymers and plastics, and consumes over 50 percentless polyester and synthetic fiber than the average global buyer. Given these figures, high GDP growth and a rising middle class in India will pull demand for chemicals through the value chain, given an increasing consumer spending growth rate.

Clearly India has much to offer in the chemicals space, making the Global Chemical Leaders Summit an invaluable opportunity to better understand such a dynamic and unique product market. This year's GLCS in Gujarat is the third summit of its kind to be organized by the Gujarat Chemical Association (GCA), since the first assembly in 2003, and has now fully matured to attract chemical industry players from every corner of the planet. Rooted in one of the fastest growing and most prosperous regions of India, the GCA has fostered cooperation between the public and private sectors to allow the visions of its founders to be realized through International Chemical Industry strength in Gujarat and India. The still fragmented Indian chemical market offers vast untapped opportunities to consolidate the industry through cooperative contracts, mergers, acquisitions, and united benchmarks of growth moving forward. The GCA aims to foster collaboration and consolidation of

the industry through a unified coalition of all market participants, which is one of the many goals of this year's event.

The theory behind partnership between competing firms is explained by the exceedingly admirable ethics inherent in India's impressive business growth. By embracing the exponential power of collaboration and cooperation in the innovative process, India's chemical space has "attracted investment proposals of over \$370 billion" following the initiation of these summits in 2003, according to Shri Narendra Modi, chief minister of Gujarat. The Committed Professional Services from GCA & the government of Gujarat is ensured to delight the experience. The magnificent allure to expand in India accounts for the recent addition of four production sites and 1,000 full time jobs by world leader Dow Chemical. Dow continues to expand its presence in India to ensure that they are tapping this "fountain head" of groundbreaking chemical technology, and represents just one of many influential parties that have set up operations in India.

This year, the gathering will attract the greatest talent from India, Asia, and abroad to congregate in the rapidly expanding region known as Gujarat. Its largest cities, Surat and Ahmedabad, are of the top five fastest growing metro areas in all of India, while the region boasts a "gold mine" of intellectual capacity, due to the 39 engineering colleges and 49 polytechnics in Gujarat alone. As these young engineers and technicians enter the job pool, they are greeted with open arms by the opportunities in chemical manufacturing, since Gujarat "contributes to more than 62 percent of national petrochemicals and 51 percent of

national chemical sector output."

An ideal base camp for global trade, Gujarat has the longest coastline among all Indian states, 40 major ports, and a 75,000 km of roads. Within the chemical industry, Gujarat has world class operations in basic chemicals caustic soda, and caustic potash, polymers, PE/PP/PVC, and the largest supplier of fertilizers and seeds. Chemicals produced in Gujarat are not limited to the domestic market, but instead are traded in both India and international markets, thanks to the well maintained system of transport infrastructure. To further support the booming growth in Gujarat, there is a well-developed power sector with three-phase electricity supply to nearly the entire state.

In the past, barriers to export expansion in the Indian chemical business have been because of levies and taxes on the industry, yet part of this hurdle is due to the absence of regular communication between the private and public sectors. To address these issues, this year's summit will include an open discussion between government officials and private enterprise leaders, giving each attendee the opportunity to explain the concerns and goals of



their respective stakeholders. This cooperative business environment will ultimately increase unity between both groups and form a foundation for the genesis of more efficient regulation in the future.

Attendees will experience a networking platform that is differentiated from similar congregations anywhere else in the world. Among them will be global dignitaries, international investors, renowned industry specialist speakers, government officials, technology exhibitors, and corporate leaders. GCLS will allow all participants assured contact with representatives at every level of the chemical product value chain, and a premier opportunity to forge and refine relationships with emerging chemical producing powerhouses.

Gujarat Chemical Association is the leading association in Gujarat, India and was established in 1947 and having the large number of membership from Trade and Manufacturing of Chemical, Petrochemical and Allied Industries like Pharmaceuticals, Dyestuffs and Agro Chemicals. In addition, the Gujarat Chemical Association will be publishing a Corporate Chemical Directory which will act as a single source book of all participating parties in the GCLS event. This source book will provide an essential resource to firms in India and abroad to foster cohesion among Indian and international firms, which will increase the velocity of information sharing and collaboration. Perhaps most important will be the research and technological developments showcased and then debated by the smartest minds in the business. Nowhere else will individuals find a more inclusive and cutting edge discussion of market shaping knowledge like that of the GCLS.

The Global Chemical Leaders Summit is indeed a perfect setting for networking and deal making, while focused on the Indian market. The summit will play host to businesses involved in 18 major chemical groups, while showcasing twelve specific products and topics during the exclusive presentation series. Numerous inventive products, set to shape the future of the chemical synthesis process, will be on display. Showcased topics will include peptides and proteins, pharmaceutical raw materials, photographic chemicals, water treatment chemicals, lab equipment, packaging, and government organization policy.

As stated by the internationally acclaimed business research and consulting firm Frost & Sullivan in September 2010, "the Chemical Industry in India has emerged as a formidable global player and has undeniably weathered the recent downturn." India, among its developing nation peers, has proved itself as the victor in terms of stability and perseverance in light of the worst global recession since India gained independence. A-P

For more information about the Global Chemical Leaders meet please visit <http://www.gcls.co.in>

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and North Korea are involved in eight projects to improve infrastructure under the Chang-Ji-Tu project. "Kim traveled to the northern Chinese region bordering the North to strengthen economic ties under the Chang-Ji-Tu project," Ahn said.

North Korea, which provided China in 2008 with an exclusive right to use and develop its east coast port of Rajin, was believed to have opened another east port of Chongjin for exports from northeastern China under the Chang-Ji-Tu project, according to diplomatic sources.

For its part, China has agreed to repair the rail linking between Tumen and Chongjin. For the project, China's Tumen municipal government will lend Pyongyang \$10 million in a long-term loan, which will partly fund the restoration of the 170-kilometer-long railroad. China has already secured rights to explore and develop the North's mines of tungsten, magnesite and molybdenum, among others. "China's efforts to develop the northeastern region has expanded to North Korea's east coast," said Kim Yong-hyun, a professor at Dongguk University in Seoul.

Cho Myung-chul, a senior researcher at the Korea Institute for International Economic Policy in Seoul, said expanded trade with China would help revive North Korea's ruined economy and raise income of North Korean people by boosting industrial production and employment. "A one percent rise in trade with China would boost the North Korean economy by 0.1 percent and its income by 0.2 percent," he said.

But Cho warned the North's deeper reliance on China could delay reform and door-opening, necessary for the North to rebuild its economy. "If the North could muddle through depending on aid and trade with China, it would feel no need to undertake reforms and openness," he said.

"The North Korean economy will be increasingly vulnerable to the Chinese economy. If and when the Chinese economy abruptly cools or inflation accelerates, the North would suffer a direct blow," said Cho who, had been an economics professor at Pyongyang's Kim Il-Sung University before his defection to the South in 1994. A-P

Social Media: Connect, Communicate, Collaborate

BY SHAMILA JANAKIRAMAN

Web 2.0 technologies open a whole new world of social, collaborative, interactive and responsive online interaction. The resulting social Web invites us to be part of it instead of just being a passive consumer. It lets others hear what we have to say even if we are not celebrities or experts in a field. Human interaction is the cornerstone of social media, whether we use it to locate friends, vote on articles or share information. The technologies used include WordPress, and Xanga for blogs; Jaiku, Twitter, Qaiku for Microblogs; Facebook, Cyworld and LinkedIn for social networking; PBworks and Wetpaint for Wikis; Mixx and Digg for social news and EHow for answer sites besides many other multi-media technologies.



The many forms of social media are Internet forums, Weblogs, blogs, wikis, podcasts, ratings and social bookmarking. According to Andreas M. Kaplan and Michael Haenlein, social media encompasses collaborative projects, blogs and microblogs, content communities, social networking sites, virtual game worlds, and virtual communities.

The increased usage of social media in its various forms has introduced the "Attention Age" where technology and social interaction have been optimally mixed for the co-creation of value. Web-based technologies are leveraged to publish user-generated content.

Businesses call this content consumer-generated media or CGM as the social media is used to reach a wide consumer base to build its reputation. Social media helps marketers reach prospective consumers who may base their purchase decisions on social media feedback. This necessitates a carefully designed social media strategy as part of any direct marketing plan.

Social media is different from industrial media, which include print and electronic media. Social media is almost free or less expensive and it also does not require special skill sets. The latter is more instant in reaching the masses faster than industrial media.

Besides helping in business promotions and socializing, this medium can be used in human resources development or recruiting in companies. CareerBuilder, a job site, found that many organizations like Panasonic are promoting themselves via social media sites like Facebook, YouTube and Twitter.

"As communication via social media becomes increasingly pervasive, organizations are harnessing these sites to help achieve a variety of business goals. Social media allows organizations to communicate in ways that didn't exist ten years ago, promoting their services and brands while also supplementing their recruitment strategy," said Jason Ferrara, vice president of corporate marketing for CareerBuilder.

Twitter has a wide base in Japan, Indonesia and many other countries. For enhancing marketing and sales, MySpace, Facebook and Twitter are favorite sites as they form a mesh of links between friends, relatives and employees. Statistics reveal the growing popularity of social media with Twitter processing 1 billion tweets in December 2009. In Asia, China ranks first followed by Japan, India, South Korea, Indonesia, Philippines and Vietnam followed by Pakistan, Malaysia and Taiwan.

Social Media Marketing in Sri Lankan Politics

The use of the Internet to make purchase decisions is slowly increasing. Also, social media gives the anonymity required by opinionated people to share their ideals. Culturally, Sri Lankans feel that the more a product is marketed, the more inferior will be the product quality. Marketers have to break this mind set to promote their product using social media.

In Sri Lanka, Facebook advertises foreign higher education, food and mobile phones and laptops. Facebook advertising clearly targets the young and the affluent. Twitter is gaining ground.

More artists, politicians, and religious organizations are using social media to promote and market themselves. The lack of knowledge and know-how still exist as deterrents to using social media more extensively in the country.

However, Facebook is more popular than Google Adwords in Sri Lanka.

Elections in Colombo feature the use of social media platforms by politicians. In the recent elections, all parties vied with one other to gain as many followers as possible via Facebook campaigns.

The low IT literacy and low Internet penetration in

FACTOIDS

- Eight out of the 10 top Web sites in Vietnam are in Vietnamese
- Twitter processed one billion tweets in December 2009

rural and remote areas may not change election results as Sri Lankans as opinions may not reach a majority of voters. Hence, politicians are trying to attract influential social media users so that they will serve as credible campaigners to reach remote

populations. Online campaigns, it is hoped, will kick off offline popularity.

Social Media Scenario in India and Vietnam

While companies and brands are increasingly using social media to promote their products and services, there is also a spurt of social media services offered by digital advertising agencies, public relations agencies and prominent bloggers in India.

Digital advertising agencies like Webchutney offer online reputation monitoring, social media outreach, viral videos and social network apps catering to clients like Boston Consulting Group, Airtel, MakeMyTrip, BookMyShow and Tata Motors. The Flea is another agency which offers viral video services besides social media consulting, operating out of Mumbai, the financial capital of India.

Practitioners in India offer services through their agencies like WATConsult, which offers social media consulting and social media outreach services besides conducting workshops. It serves companies like Frito Lay, Nokia, Mahindra, Rediff, and ForceIndia.

A fairly new entrant to the Internet is Vietnam, which got Internet access only in 1997. Social media is still in a nascent stage. Vietnamese are more of content consumers than creators. Low bandwidth, less Web usage, a small online advertising market, content controls and regulations are deterrents to social media usage.

In 2009 the government here allotted more funds towards creation of online content and development of the IT industry. Google.com.vn, Yahoo! and zing.vn are some popular Vietnamese Web sites. Eight out of the 10 top Web sites are in Vietnamese.

Yahoo! 3600 provides social networking, photo sharing and blogging services and Mash enables users numbering about 16 to 18 million to edit profile and link with others. Cyworld allows user interaction via a "mini-hompy" service besides offering a "miniroom" which is a virtual room featuring avatars. Cyvee is like LinkedIn, populated with professionals enabling them to interact, share and exchange knowledge for career and business advancement. Tictac is Vietnam's version of Twitter and Phununet brings women on board to exchange views on topics ranging from cooking to fashion to careers. There is even a Facebook clone FaceViet, which has not made waves like the original.

Social Media in Japan

On the other end of the social media spectrum is **Continued on Page 37**

Asia Poised to Lead Global Smartphone Market

BY VINTI VAID

Although it would be normal for people anywhere around the world to think that the center of focus for smartphones is in the United States, particularly in Apple Inc.'s California headquarters , they may be surprised to know that Asia is playing the biggest role of all.

With Asia recovering quite remarkably from the recent global financial crisis - lead by China,, which surpassed Japan and Germany to become the second largest economy in the world - it comes as no surprise that this nation is fast emerging as one of the biggest markets for smartphones. This trend, however, is not unique to China, as other countries in Asia, particularly in the Southeast Asian region, have significant and rather interesting trends that are triggering smartphone manufacturers to shift their focus.

The Asian market was quite slow in its acceptance of smartphones, as most of the Asian telecom networks were not prepared in infrastructure to support the full range of features and capabilities that smartphones offer. Now that the needed systems are in place, smartphone manufacturers from across the globe are scrambling to get a foothold in this fast emerging market.

Asia poised to transform the global outlook for smartphones in the near future.

Smartphone Market Trends in China

With the number of mobile phone users numbering around 786 million, a figure that is double the population of the United State, China has emerged to be the No. 1 market for cellular phones. From January to April of 2010 alone, over 39 million new users purchased and subscribed to mobile phone services.

With a growing demand for e-mail, Internet surfing, and countless applications that require online connectivity, Chinese users are shifting their focus to smartphone devices that are capable of handling these functions. There are over 380 million Chinese users right now, and 233 million of these access the Web through a mobile phone or a smartphone.

However, foreign smartphone manufacturers would be in for some challenge as they try to penetrate this huge market. Take Apple Inc.'s iPhone for example. Although the company generally encountered success in the Chinese market, it did not achieve this through smooth sailing as they did in other global markets. This is attributed to the fact that the Chinese government opted to back their own standards for cellular phone technologies, instead of relying on foreign standards.

Government-controlled China Mobile, which operates the largest subscription base in the country, has unique cellular Internet access technologies that are not compatible with the iPhone – and missing out on the opportunity to penetrate China Mobile's 544 million subscribers. Apple had no choice but to market its iPhones through China Unicom, the second largest operator which is still government controlled.

China Mobile now has at least 200 smartphone models in the market, including the popular OPhone, based on Google's Android OS, which will give Apple a run for its money. It is being produced by seven different manufacturers. This includes Chinese companies like Huawei, ZTE, G'Five and K-Touch that evolved from manufacturing their core products in networking and other mobile devices – and jumping onto the smartphone bandwagon.

Industry giant Motorola has a different approach though. Instead of insisting on their standards, they opted to introduce smartphone products that are specifically geared towards Chinese customers and their standards. This includes innovative smartphones that can recognize Chinese characters handwritten on their touch screens. In an interview with Bin Shen, the head of Motorola's Mobile Device Product Management in China and South Korea, he said that, "We're convinced we (Motorola) have to be a leader in China."

He adds, "China is going to lead global growth in



Tim Martin | Dreamstime.com

smartphone adoption. If you want to be a major player in China, you cannot be just in the high end. You have to get into a core set of customers and make sure you offer innovation for the high end quickly."

Smartphone Market Trends in Southeast Asia

The same market trends for smartphones in China are also making waves in other parts in the region, particularly in Southeast Asia. CNET Asia reported that Singapore registered the world's highest penetration for Apple's mobile operating system iOS, with one out of 10 people in the country using an iOS-enabled device to access the Internet.

Smartphone usage in other Southeast Asian countries is also impressive, as these devices are fast growing in popularity among the region's mobile users. Thailand and Malaysia are the other two countries aside from Singapore that register as the largest markets for iPhones and iOS devices in the region. Although the penetration rate is considerably large compared to other countries in the region, these figures account for only 0.5 percent of the total population – a small niche and still a far cry of the market potential in these countries.

Other Southeast Asian countries such as Indonesia and the Philippines are well known for their prolific usage of social networking sites like Twitter and Facebook, and this was encouraged significantly by the growing popularity of smartphones and other mobile Internet devices. However, the iPhone is not the most popular device chosen by most users, with BlackBerry and other more affordable smartphone options getting a fair share of the market. Incidentally, the Philippines also is one of the few countries in Asia that exhibits a similar ratio of iPhone (tagged at 58,000 units) and iPod Touch users (with over 53,000 units). Both these devices are used to access the Web.

The Philippines was one of early markets in the Southeast Asian region where Research In Motion first introduced their BlackBerry devices. The market potential is still large as BlackBerry established its hold in the country eight years ago as the preferred smartphone for businesspeople. The market for BlackBerry in this

country is also spreading from its niche in the enterprise sectors and is slowly penetrating mainstream mobile Internet users. RIM is expecting that the same trend and growth in other Southeast Asian markets such as Thailand, Malaysia and the rest of the countries in this region.

Smartphone manufacturers, however, will be challenged with the dominance of pre-paid or pay-as-you-go subscriber options in the Southeast Asian market, which is preferred over the post-paid or monthly subscription contract where smartphones are usually based. Take Thailand's case for example, where 88 percent of the total mobile users of 66 million use pre-paid accounts. These figures may not necessarily translate to a similar number of mobile phone units, as many users maintain one or more prepaid accounts at the same time, these figures would still account significantly in the long run.

Now that the demand for extended features like email, web access and other applications are taking more popularity, the smartphone market would eventually peak up. The growing number of post-paid subscribers would also be a significant factor, now that many providers offer unlimited mobile data and internet access with their subscription plans.

Smartphone Market Trends in the Rest of Asia

The rest of Asia will not be left behind in this growing trend for smartphones, as the region already accounts for one-third of the total global market. This continuing growth is seen by market analysts to surge further and is expected to quadruple by the year 2015. Japan has an advanced mobile telecommunications industry and accounts for the highest number of iPhones that are active in Asia, and the fourth in the overall count around the world.

3G technologies actually began in Japan, and users are already accustomed to advanced data services like video chat, mobile Web browsing, mobile social networking and other advanced consumer habits. This makes Japan a prime market target for the iPhone and other smartphone manufacturers.

Other Asian countries with lower incomes than their more industrialized counterparts have revolutionized

low-cost text messaging services, even before it became popular in the United States, and most mobile users use their devices for reading more than they use them for talking. Adopting advanced data services with smartphones would come naturally for them eventually.

In the United States and other countries in the West, smartphones are competing with the PC market as the preferred means for accessing the Internet. The scenario is quite different in Asia where most users can only have access to the Web by going to their local Internet café. With smartphones becoming more affordable, many would invest in buying a smartphone instead of a laptop or notebook to access the Internet. There will be no maintenance and hardware headaches to address as well as paying for the monthly Internet access fee. With smartphones, providers can throw in unlimited Internet access as part of their mobile plan.

In Asia smartphones are bought because of the image of status and success that they project – not to mention being part of contemporary fashion as in the case of Thailand. This outlook on the use of smartphones is the same throughout Asia, and is the strategy that HTC of Taiwan is projecting to users – smartphones as high-

end pocket candies.

HTC is the biggest producer in the world of smartphones that utilize the Android operating system and Windows Mobile, and have seen a four-fifths increase in sales for the first half of this year. The company expects this trend to continue as more acceptance for smartphones are slowly being realized in the Asian market – a trend that is seen as one very bright horizon for the mobile industry. AP

COMPANIES MENTIONED IN THIS ARTICLE:

Apple Inc.
<http://www.apple.com>

Research In Motion
<http://www.rim.com>

HTC Corp.
<http://www.htc.com/asia>

Nokia
<http://www.nokia.com>

Motorola
<http://www.motorola.com>

number and quality of technological products and services produced, papers published and patents granted. In addition, Chidambaram says, quantifiable measures in many other areas like energy development and space exploration are less straightforward, and quantifying the innovative capacity of a nation is far more complex thanks to the wide variety of dimensions that must be dealt with.

While quantifying innovativeness and scientific and technological progress is not easy, the factors leading to a healthy environment for innovation are well known. Deborah Wince-Smith, president of the U.S. Council on Competitiveness, said in the Chidambaram article that key factors leading to the establishment and maintenance of a healthy innovation environment included quality of leadership, infrastructure improvement, talent retention, and venture capital expansion.

Over the years, China and India have taken steps to construct an environment where innovation can take place. The Chinese innovation strategy, as discussed by Carl Dahlman in the study “Technology, globalization and international competitiveness: Challenges for developing countries,” was to embrace globalization. More specifically, this strategy has encompassed five thrusts over the decades: the importation of turnkey facilities and technology; the duplication, borrowing and reverse-engineering of foreign technology; the internal dissemination of knowledge; the tapping of foreign expertise by means of foreign direct investment and trade; and the increase of key R&D investments from a low of just 0.7 percent of GDP in 1998 to 2 per-

FACTOIDS

- In the 2010 Boston Consulting Group and BusinessWeek's Global Innovation Report - which determines the 50 most innovative companies in the world - two Indian companies made the list: Tata Group (17) and Reliance Industries (33).
- Four Chinese firms made the list: BYD Company (8), Haier Electronics Group (28), Lenovo (30), and China Mobile (44).
- 100 percent of Indian respondents and 92 percent of Chinese respondents to this survey indicated that the company they work for sees innovation as a top, top-10 or top-three priority.

and so on. As a result, economic growth has sped up to approximately 8% per year since 2003. Currently India is on an equal footing with many world leaders in the space and nuclear-power generation arenas, and continues to invest significantly in its science and technology infrastructure by supporting research, technology development, key education, and other such initiatives. AP

ON THE WEB

<http://futurethinktank.com>

<http://www.hindawi.com>

COMPANIES MENTIONED IN THIS ARTICLE

Huawei
<http://www.huawei.com>

Bharti Airtel
<http://www.airtel.in>

Increased Competitiveness of Chinese, Indian Tech

BY KEVIN LIU

There was a time not too long ago when the Chinese and Indian technology sectors lagged behind those of more developed Asian countries like South Korea and Japan — not to mention their equivalents in the West. Nowadays, these sectors are becoming increasingly competitive in the global arena.



As a matter of fact, in some key areas, the Chinese and Indian tech sectors are already on par with the best in the world. In addition, tech firms such as Huawei of China and Bharti Airtel of India routinely rank near or at the top of their industries, and many other companies are not far behind.

Key among the factors leading to this increased competitiveness is an environment that fosters significant innovations in science and technology. Such an environment can help nations become scientifically advanced and can lead in the long run to innovation leadership. However, as mentioned by R. Chidambaram in the article “Indian Innovation: Action on Many Fronts” (published in the 2007 issue of the journal Issues in Science and Technology journal), it is not always easy to measure a country’s scientific and technological progress. Those seeking to do so must keep track of such parameters as the

Continued from Page 33

Japan with a very large user base. Although Facebook, YouTube and MySpace are present, Japanese local services like Mixi, NicoNico are more popular. 2Channel introduced in the late 90’s gives anonymous users freedom of expression which serves to empower them.

Twitter has taken Tokyo by storm, followed by big cities in the United States in number of Tweets per day with Osaka also among the top users.

Mixi, a social media platform in Japan, was launched in 2000 - much before Facebook or MySpace - indicating the love for sharing information among Japanese. GREE is another popular site.

Hatena and LiveDoor are social bookmarking sites, while Twib and Twinavi, connect mini-blogging services

with other social media services. Mobile marketing is not local search marketing in Japan. Mobiles are an integral part of online life here and social media marketing should include PC and mobile marketing to reach a target audience.

The growing popularity of social media also comes under criticism]. Andrew Keen in his book “The cult of the Amateur” criticizes social media. He calls this digital Darwinism, as more people put their opinions on the Internet, whether welcome or otherwise. He adds that this will lead to a phenomenon of “survival of the loudest and most opinionated rather than the fittest.”

Social media is here to stay, evolve and increase in dimensions, encompassing and allowing freedom of expression. AP

Prepare for a Deluge of Digital Entertainment

BY SHAMILA JANAKIRAMAN

From the smallest electronic device such as an iPod to the huge cinema screens in multiplexes, digital entertainment technology has become part and parcel of our everyday lives.

In China and Japan, digital media consumption is huge and the investment in innovative business models is considerable. Attractive Asian digital media businesses are encouraging even Western media businesses to make forays into the Asian digital entertainment market.

Innovators like RealPlayer have come up with several entertainment solutions besides audio and video, such as casual games like scrabble, Uno etc. It allows downloads of video from several Websites to mobile phones and portable devices.

Asia is considered a hotbed of mobile entertainment by the U.S.-based company offering Real Player. Also, the company's lead mobile R&D center is located in Asia and Real's video ringback tone, Emoticon SMS and other services are made available via regional carriers like SK Telecom, Bharti Airtel and China Unicom.

Advances in India, Japan, China

In India, the advent of digital technology has spruced up the media and entertainment industry including special effects, animation, computer modeling, electronic cinematography and digital cinema multiplexes.

Multimedia technology has enhanced the animation industry in the country besides assisting in pre-production and post-production activities concerning audio-visual media. Many foreign movies are being sent to India for adding special effects and animation.



The use of digital technologies has brought a change in content distribution. Physical distribution has been overtaken by digital distribution. Handsets with 3G network technology and other portable devices are leveraging broadband capabilities to bring entertainment to the hands of consumers here.

Internet, digital technologies and its various applications have spawned a new genre in advertising and entertainment taking quality content to more people and more locations cost effectively and fast. The media and entertainment industries are fast growing sectors in India and other countries of Asia Pacific. Real Image Media Technologies, Tangerine Digital Entertainment and eLife Technology are companies in India which offer digital entertainment solutions along with other home digitization options.

Digital entertainment goes a step further in India. GPS tracking capabilities are leveraged to locate a person in the neighborhood to target him/her with promotions.

Japan has built its fortress in digital gaming, use of animation in entertainment and making the smart phone more powerful with apps. Such interactive technologies are fast phasing out cinema and video viewing in their traditional forms, say experts in the field.

Ronald A. Morse, a scholar on Japan and an expert in its entertainment industry, opines that Japan's success in the digital industry is due to its access to a large Asian consumer base.

"The Asian market is growing much faster and larger than other parts of the world. Japan already has a beachhead in the Asian market. By 2015, 60 percent of Hollywood film sales will be in Asia. In the computer industry and the game industry the Japanese are very strong. They have strengths in broadcast telecommunications," he added.

The 8th China Digital Expo & Conference (ChinaJoy), which took place between July 29 and Aug. 1, is proof of the growing game industry in China similar to the Tokyo Game Show in Japan.

Digital technology is harped as the means to help nations come out of recession and economic stagnation. Japan, being capable of adopting new technologies faster than any other nation, is bound to leverage digital technology advancements to bounce back, as its traditional industries have been moved out of the country, according to Morse.

Digital entertainment, referred to as "culture amusement" in Japan, encompass motion pictures, comics, animation, video arcade games, computer and console games for the home, cable TV, cell phones and Internet gambling besides music and Internet games. These form part of the new digital industry in Japan. It is the core cultural competence that the Japanese possess in the fields of drawing, illustration, artistic sensibility, and these synergized with technology that gives them a competitive advantage over others.

The 8th China Digital Expo & Conference (ChinaJoy), which took place between July 29 and Aug. 1, is proof of the growing game industry in China similar to the Tokyo Game Show in Japan. This initiative by various organizations in China is aimed at enhancing games, preventing piracy in game products besides encourag-

ing development of Chinese electronics products and the safe use of online game products by youngsters.

The Crystal Institute of Digital Education in Beijing was started in 2003 to promote China's creative capacity and for developing students' practical ability. Architectural presentation, film and animation, TV program design and promotion, computer games, graphic design and animation direction are some disciplines dealt with in the institute. Crystal has developed its own "digital scene factory," which saves a lot on movie production costs. Traveling to distant locations for shooting scenes and adverse weather conditions can be avoided as movie scenes can be digitally enhanced in labs.

Innovations in Singapore, Thailand and Malaysia

Singapore boasts varied digital applications, whether it is in the transport, education, medical care or the entertainment sectors. Digital entertainment has been leveraged in all its tourist attractions, including the recently opened Universal Studios theme park.

Singapore is home to the headquarters of Creative, a provider of digital entertainment products for the PC and the Internet. Creative gave the world Sound Blaster and launched the multimedia and the ZEN line of digital audio players making inroads into the personal digital entertainment market. Striking a balance between form and function, Creative offers a cornucopia of digital entertainment products including MP3 players, portable media centers, multimedia speakers and headphones, digital and Web cameras, graphics solutions,

music keyboards and PC peripherals. Enhanced audio quality was made possible in MP3s with Creative's Xtreme Fidelity's (X-Fi) audio platform.

A digital bookstore service is offered by True Entertainment & Media and BENQ. Providing a plethora of book titles in the electronic reader format, the service is expected to serve as a means of edutainment (education and entertainment) to avid readers who need not lug huge books around.

BENQ introduced its nReader e-reader, which features a touchscreen electronic ink display, reducing strain on readers' eyes. Besides being eco-friendly and saving on paper, this technology is expected to encourage more youngsters to take up reading as an entertainment option, rather than gaming or the passive consumption of TV.

Still in the growth phase, the Thai e-reader market is set to grow immensely.

Autodesk Malaysia country manager Tan Choong Sang says his company is in the thick of things. "Stereoscopic 3D is redefining entertainment content, as exemplified by the success of 'Avatar'." Autodesk, a pro-

vider of creative solutions, expects 3D digital entertainment to be the de facto standard.

Revenue from 3D is expected to increase 38 per cent annually through 2018, according to research firm DisplaySearch's 3D Display technology and Market Forecast Report. "In addition, 7,000 new 3D-capable cinemas will be built in 2010," added Tan to substantiate his opinion.

To keep up with the 3D onslaught, Autodesk launched enhanced Digital Entertainment Creation solutions such as Autodesk Maya 2011, 3ds Max 2011 and Autodesk Softimage 2011.

Seoul Digital Media City

A decade ago, the government in Seoul envisioned a wired nation for Korea and decided to set up an info-media industrial complex leveraging the best multimedia, IT and entertainment capabilities the country possessed. Thus was born the Digital Media City complex, which promotes the use of information, communication and media technologies.

Digital Media City serves as a high-tech city centered on Digital Media Street, where broadcasting, movies, games, music, e-learning and related industries thrive. The environment has brought IT companies such as LG Telecom, Pantech and LG CNS into its fold, besides offering public exhibition facilities including the Korean Film Archive and the Korean Film Museum.

Korean consumer electronics giant Samsung made news early this year by tying up with Microsoft to incorporate MS PlayReady technology in devices including mobile phones, digital video players, and TVs among others. This will help consumers take their entertainment wherever they go.

"PlayReady is an integral technology component that will help us to deliver on our vision for connected entertainment and bring to life the kinds of seamless entertainment experiences that take full advantage of the digital medium," said W. P. Hong, executive vice president of the Mobile Communications Business at Samsung Electronics.

PlayReady will be featured in Samsung communications and entertainment devices by 2012. This content access and protection technology enables digital entertainment on various devices supporting all types of digital content of different formats.

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of fostering an economy too dependent on exports rather than domestic consumption, overly regulated, lacking in innovation and too prone toward public works projects and spending to boost growth.

The last policy, the naysayers allege, favors huge construction firms that pay donations - often illegal - to politicians who are the middle men in setting up such deals. The result is new roads and bridges that the public does not use, often in the country side, and that does not strengthen the national economic infrastructure.

ACE 2010

The popularity of digital media in entertainment in the Asia Pacific region is further highlighted by the announcement for ACE 2010: 7th Advances in Computer Entertainment Technology Conference to be held in Taiwan in November. The event is organized by ACE, which is the forum for interactive entertainment and entertainment computing. This year ACE is collaborating with DIMEA 2010 (5th Digital Interactive Media Entertainment and Arts Conference) and NetGames 2010 (9th Annual Workshop on Network and Systems Support for Games).

Research papers concerning entertainment technology; varieties of video and computer games, Web and mobile-based computer entertainment; audio, visual and other sensory forms of digital interaction have been accepted by the conference conveners. The event is promoted by experts from the universities of Taiwan, Singapore and Japan.

ACE looks forward to discussions regarding interactive art and entertainment applications between experts in the fields of affective computing, animation techniques, audio design, augmented and mixed reality, digital cinema, digital entertainment, game production and techniques, and others. A-P

ON THE WEB

Seoul Digital Media City, Korea
<http://dmc.seoul.go.kr/index.jsp>

ACE Conference, Taiwan
<http://www.ace2010.org>

Crystal Institute of Digital Education
http://www.crystalcg.com/en/DIGITAL_EDUCATION.html

COMPANIES MENTIONED IN THE ARTICLE

Real Networks, Asia Pacific
<http://www.realnetworks.com>

Tangerine Digital Entertainment
<http://www.tangerinedigital.com>

Samsung Electronics
www.samsung.com

Creative Technology Ltd., Singapore
<http://www.creative.com>

Or it means concrete aprons poured onto mountain sides, supposedly to prevent erosion and land slides. But environmentalists claim these are not necessary for safety and only succeed in making Japan's atmospheric warming problem worse, as well as despoiling the scenery and lowering the residents' quality of life.

Also, Japan has seen half a dozen prime ministers cycle through that office in the past ten years, sometimes as the head of unstable coalition governments. This renders it hard for any one leader to formulate or execute a long term recovery plan. A-P

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Leveraging ERP in Logistics and Production

BY SHAMILA JANAKIRAMAN

Enterprise resource planning, or ERP, is essentially an integrated computer software system that helps organizations manage their internal as well as external resources.

The ERP system helps streamline the flow of information between various business functions. The system is based on a centralized database and it leverages a common computing platform to bring the entire business operation into one uniform and enterprise-wide systems environment.

The ERP system can be deployed from a centralized server or can be deployed in a distributed design so that businesses can use different modules from different vendors. Although initially ERP was employed chiefly for the manufacturing sector, it soon encompassed other organizational functions and is also used by businesses not involved in manufacturing like non-profit organizations and government bodies.

An ERP software package is characterized by easy integration and operation in real time. The applications can access a single database to avoid redundant data and all modules will have same look and feel. All the information will be readily available to users without any integration work. The ERP system covers transactional activities like financial, distribution, human resources and product lifecycle management.

Organizations leverage ERP for other advanced applications like customer relationship management, supply chain management software, warehouse management systems and in decision support systems.

ERP Implementation

As the production and implementation of ERP software systems is complicated, it is advisable for organizations to seek help from professionals who offer con-



An ERP system's success depends on data migration and hence it requires careful planning. It involves identification of data to be migrated, timing for the migration, generation of data templates, finalizing the tools and also planning for data archiving.

When selecting an ERP vendor, care should be taken to see if the system offered matches the requirements of the present business processes. The business process analysis should include a detailed study of operational processes like whether the organization functions as many business units or as an integrated whole.

Advantages of ERP Implementation

Large organizations may have several software applications that cannot interface with each other. ERP systems help connect them to enable accurate forecasting. This helps optimize inventory levels for enabling maximum profitability. Also, integration between various functional areas enables good communication, resulting in productivity gains. Best design engineering options, order tracking, optimizing revenue cycle, accounting for various tasks like purchase order receipt, inventory receipt and costing is made possible by implementing a suitable ERP system.

Also, ERP systems serve by centralizing data in one place. This has its benefits such as consolidation of various applications of the organization including finance, human resources, manufacturing etc. It provides real-time information to management to make well informed

sulting services and provide a customized solution with continued support. Being modular, systems implementation can take place in steps. The time period however depends on organization size, extent of operations and the degree of customization required.

decisions. Besides reducing production lead times and tightening delivery schedules, it also enhances security for sensitive data. The security features safeguard data from industrial espionage instigated from outside the organization and from embezzlement occurring within by deploying internal controls.

ERP systems serve the supply chain, warehousing and logistics activities of any organization optimally. Activities involving mobilizing of resources and making them available when and where necessary involves supply chain management. It requires coordination from the time order is received up to the delivery of the product to consumer.

Enterprise resource planning connects the processes, monitors the flow in the supply chain, reduces bottlenecks and increases profitability. Supply chain management enhances the productivity activities as it actually streamlines it. The ERP tools and techniques highlight the action that is to be taken as remedial measures in the supply chain so that production is unhindered.

ERP also helps manage warehouses. Details regarding inventory status like availability of raw materials and associated tools have to be made known to the purchase department as no deficit should occur when need arises for a particular material. The ERP system makes these details available on a computerized system thereby avoiding delays.

ERP Logistics Software

Logistics is another area where ERP is leveraged to the maximum. It deals with the transport skeleton of an organization. Transport of raw materials to manufacturing plant from suppliers and the delivery of finished goods to customers fall under its control. It involves transport by road, rail, air and sea. ERP logistics software provides a common database, which keeps track of all such movements which enables updating concerned people with the correct and most current situation.

The ERP logistics software enables personnel to locate the current status of any material. The system keeps a continuous and automatic update of the flow of goods. It records when and where the movement of goods takes place. As the entry is made at many outlets, the data is available from everywhere and avoids confusion in the recording of goods' status. The system can be cross-checked for locating errors. In case of manual entry, there are chances of miscommunication, errors in entry and recording of activity may not occur periodically and regularly, leading to coordination problems.

As goods are transported by different modes of transport, it is imperative to monitor and manage vehicles used for receiving and delivering consignments. Large enterprises especially those involved in sea food, dairy products or other perishable items may operate their own trucks with deep freeze facilities. In such cases timely delivery is especially critical given the nature of the products. Some organizations even own cargo ships, while some others may employ the services of travel agents.

ERP logistics software also helps companies that rely

on railways or air or travel agents. In this case there is no requirement for maintenance and other functions. Here freight authorities become part of the ERP database and can supply the relevant details to the organization which can coordinate its license renewal and safety standard compilations, besides also streamlining payment of bills and preparation of vouchers.

In dealing with logistics problems of company-owned vehicles, it is imperative to know the condition of all the vehicles, when service is due, when to upgrade them etc. As they are important connectors in the supply chain it is necessary to keep them in prime condition always.

As the department of logistics deals with goods movement whether it is receipt of raw materials for production, tools for stores, transport of finished products to warehouses/customer outlets it is answerable to every other department in an organization. The status of goods, delays and reasons for delays have to be always available. ERP logistics software helps trace the status of goods and informs the status of vehicles via a common database setup by the company, eliminating delays in information delivery.

India-based e-resource ERP has operations in Singapore and the Middle East. E-resource ERP serves multi-mode manufacturers in various industries. As it is imperative for small and medium businesses to satisfy customer needs and be compliant with regulations; manage suppliers; control costs and also market their products an ERP system is most essential to handle them all.

ERP Manufacturing Solution

ERP manufacturing management solutions are used to develop schedules that help companies transform their supply chain to make a production plan by leveraging a sales plan, manufacturing capabilities, finance and customers.

The solution helps reduce manufacturing costs, increase resource utilization, reduce production problems, achieve on-time delivery and enhance operational control. Also the software offers visibility during operations besides supporting manufacturing activities like make-to-stock, make-to-order, configure-to-order, just-in-time (JIT) manufacturing and materials control and lean operations. E-resource ERP Web-based ERP solutions help small and medium businesses to benefit from the fully integrated system and realize cost benefits and revenues and also enhance customer service.

The design, manufacturing, distribution and use of textiles require flexibility and rapid response necessitating a dynamic management system. ERP systems help textile industries organize business and manufacturing knowledge to provide answers for critical management questions.

The cGMP compliant ERP solution offered by e-resources is suited for the pharmaceutical industry. ERP helps in forecasting and improving GMP compliance and SOP adherence. It reduces operator errors and produces accurate batch documentation. It helps manage data easily, reduces inventory needs, reduces product

Continued on Page 49



Linqong | Dreamstime.com

SOLAR-POWER FDI IN ASIA PRIMED FOR BRIGHT FUTURE

BY ANURADHA SHUKLA

Clean-technology is projected to grow considerably over the next few years

Increasing clean-technology FDI is viewed as exceedingly important, due to the fact that many of the most successful countries — such as India and China — are grappling with environmental issues directly stemming from their success. China, for one, is reeling from the environmental impact of more than two decades of economic growth, and is infamous for being the world's heaviest emitter of carbon-dioxide emissions. In addition, thanks to the efforts of various agencies around the world, an international consensus is being reached that such environmentally unsound practices, as fundamental as they may have been to said economies, must be stopped, as they are both harmful and non-sustainable.

These developments have set the stage for an increase in foreign direct clean-technology investments in the region. In many parts of Asia, solar power is the clean technology of choice, thanks to such factors as the availability of wide swathes of desert land, perfect for photovoltaic panels, in areas like Central Asia. Private investors have become very aware of the excellent potentials of investing in solar power, and they are spurred on as well by the incentives offered by many governments.

In 2009, China, for instance, classified wind- and solar-energy projects as “encouraged,” giving investors in such projects various privileges at different steps, from the approval to the implementation phase.

One investor in solar power in the region is the Asian Development Bank, which in May announced a \$9 billion solar-power project in Central Asia, aimed at laying the groundwork for facilities capable of generating a total of 3,000 megawatts by 2012. More specifically, the bank itself is to provide \$2.25 billion in direct financing and will work to leverage \$6.75 billion in private financing, and will try other tactics as well to get more investors in. One such tactic could be to request donor nations to “buy down” upfront costs in solar power projects.

A second solar-power project the ADB is to finance is a 73-megawatt solar-power plant in Thailand, which when completed will rank among the most expansive photovoltaic facilities in the world. The bank is providing \$70 million and is to work with other key partners such as Mitsubishi Corporation.

Even emerging Asian economies are being viewed as venues for solar-power firms to invest in.

Vietnam is being focused on by the American solar-module firm First Solar, which is searching for a suitable Vietnamese location for a \$1.2-billion, 72-hectare solar-energy facility.

First Solar is only one of the many companies seeking to set up shop in Vietnam, which is one of what are known as the CIVETS nations — Columbia, Indonesia, Vietnam, Egypt, Turkey and South Africa — the key emerging-FDI countries within the next decade.

First Solar is only one of the many companies seeking to set up shop in Vietnam, which is one of what are known as the CIVETS nations — Columbia, Indonesia, Vietnam, Egypt, Turkey and South Africa — the key emerging-FDI countries within the next decade.

Analysts see significant room for growth in the Asian solar-energy market in the near future. Many say that China is to become the largest market for solar energy in the world within the next decade, possibly as early as 2015, with India and other key markets in Asia not too far behind. A-P

ON THE WEB

<http://www.asiandevbank.org>

<http://www.renewableenergyworld.com/>

COMPANIES MENTIONED IN THIS ARTICLE

Asian Development Bank
<http://www.adb.org>

Mitsubishi Corporation
<http://www.mitsubishicorp.com>

First Solar
<http://www.firstsolar.com>

ASIA RAMPS UP SCIENCE & TECHNOLOGY COMPETITIVENESS

BY ANURADHA SHUKLA

As nations from the Americas to Europe are continuing to flounder, the Asia-Pacific region is surging.

Although the lion's share of economic activity, as well as corresponding attention, is being enjoyed by China and India — the more developed Asian nations like South Korea, Japan and Singapore, as well as the next-tier nations such as Malaysia, Vietnam and Thailand, are all beginning to enjoy progress. It has been argued by some analysts that many of these less dynamic economies are simply enjoying spillover benefits that accrue to the region thanks to the performance of China and India.

However, many other analysts would say that the region as a whole does indeed have much to offer. Not only because Asia offers cash-strapped Western firms considerable cost savings vis-à-vis the more developed economies in the global market, but also because the Asian region itself has been gearing up to challenge the usual suspects — the developed economies in North America and Europe — in terms of scientific and technological competitiveness. Such a development would have been unimaginable decades ago, but it is rapidly becoming a reality now.

Where Asia is Surging Ahead

In a National Science Foundation study entitled "Asia's Rising Science and Technology Strength: Comparative Indicators for Asia, the European Union and the United States" (2007), the NSF team, lead by Rolf Lehming, traces the emergence of Asia as a powerful science and technology region. The study examines overall patterns and trends regarding the S&T measures of key Asian nations versus the European Union and the United States. A broad set of science and technology indicators were used, including education and advanced training; research and development expenditures and foreign direct investment ; scientific publications and



FACTOIDS

- The number of college-age people in Asia, says the National Science Foundation, is far larger than those of the EU and the U.S. combined. The total number of college-age people in China, India and Japan is projected to be five times as many as the combined EU and U.S. total, from 2000 to 2020.
- The NSF says that in terms of research and development figures, so crucial for boosting S&T competitiveness, Asia is quite far ahead. After 1995, R&D growth in Asia averaged 8.7 percent annually, compared to 6 percent for the U.S. and just 5.4 percent for the EU.

collaboration; patents; and high-technology manufacturing and exports.

In terms of many of these parameters, the Asian region was found to be either very close to the United States and the EU in terms of science and technology. In terms of some significant parameters, it was found to have either equaled or even outstripped the EU and the United States.

As regards education, the number of people worldwide with tertiary or postgraduate education was found to have nearly tripled since 1980, with the number of Asian graduates having increased the fastest. All the major

Asian economies enjoyed significant growth in their tertiary-educated labor force, an average of 5 percent per year — similar to Europe but far higher than the U.S.'s 2 percent. Both China and India were found to have doubled their percentages. Asia and Europe were also found to have significantly increased the number of degree holders in natural sciences and engineering, such that the majority of doctorate holders in these areas come from Europe and Asia.

As regards R&D expenditures, which are seen as key to social welfare and economic growth and indicate overall potential for technological innovation, the study found that in 2003, the level of Asian R&D was 10 percent higher than that of the EU. When compared to gross domestic product, the 2003 ratio of Asian R&D expenditures (1.92) was higher than that of the EU (1.81) but still behind the United States (2.68).

A third major parameter involves the number of science and engineering articles published, which is an indication of the breadth of a country's research portfolio and research priorities. Somewhat less than 150,000 S&E articles were authored by Asians in 2003, below both the United States and the EU, both of which accounted for more than 200,000 articles.

A fourth major parameter involves patents. From 1990 to 2003, the study found that the Asian share of the total number of patents in the U.S. granted to foreign inventors rose from 23 percent to 27 percent, contrasted with a decline in the EU share (from 20 percent to 16 percent). In terms of triadic patents, however — patents filed in all three regions — Asia generally trailed both the U.S. and the EU.

Lastly, high-technology industries, which include scientific instruments, computers and office machinery, pharmaceuticals, aerospace and communication equip-

A fourth major parameter involves patents. From 1990 to 2003, the study found that the Asian share of the total number of patents in the U.S. granted to foreign inventors rose from 23 percent to 27 percent, contrasted with a decline in the EU share (from 20 percent to 16 percent).

ment, are key because they increase productivity, lead to the creation of high-paying jobs, generate new products and production processes, and stimulate other business activity. The study found that from 1990 to 1997, more than 33 percent of the world's high-technology manufacturing took place in Asia, although this share fell to below that of the U.S. in 1997 as global demand for high-technology U.S. products rose. However, from 1990-2003, Asia's high technology value added has always exceeded that of the EU. In terms of high-technology exports, Asia accounted for 43 percent of the world total in 2003, as compared to 32.2 percent for the EU and only 16 percent for the U.S.

Why Asia is Surging?

The NSF study further presented a look behind the scenes at many Asian nations in order to determine the reasons behind Asia's S&T strength. It was found that government policies and initiatives specifically aimed at boosting S&T had a great deal to do with the region's developing S&T vitality.

The NSF study found that China was the largest and the most dynamic actor in the region. The Chinese government, said the study, is focusing on education and S&T in order to make them into engines of sustainable economic development. The Chinese market has become a key player in the international high-technology market. India is not at all far behind China; India is beginning to focus on rapid technological advancement, and as such has begun to develop biotechnology and knowledge-intensive service sectors.

The ASEAN member-states' cooperation in S&T revolves around nine specific program areas. These are food science and technology, biotechnology, microelectronics and information technology, S&T infrastructure and resources development, space technology and applications, non-conventional energy research, meteorology and geophysics, materials science and technology, and marine science and technology. In addition, ASEAN also seeks to promote alternative energy technologies for small and medium enterprises in the region, increase the competitiveness of the food industry and address nutrition needs, provide seed funding for science projects, develop a science-based coastal management system, and build public awareness in S&T significance by recognizing and awarding outstanding S&T-related work. [A-E](#)



SINGAPORE ROARS WITH NEW RESEARCH PLAN

BY VICTOR FIC

The government of Singapore said on Aug. 19 that it will allocate a whopping \$16.1 billion toward research over the next five years.

It is part of an effort to boost innovation in an economy that historically depended on foreign investors in low- to medium-end manufacturing, tourism, ship repair, and later in finance.

"Singapore's long term aim is to be among the most research-intensive, innovative and entrepreneurial economies in the world in order to create high value jobs and prosperity for Singaporeans," according to Prime Minister Lee Hsien Loong, speaking on Aug. 10.

He added that "Research and innovation underpin the competitiveness of our industries, catalyze new

growth areas and transform our economy. Increasingly, intellectual capital will be critical for our next phase of economic development," he added.

The research effort will focus on promoting energy efficiency, reducing carbon dioxide emissions amplifying the choices that the city state - it lacks natural resources - for meeting its energy needs.

Singapore has a dearth of in-country resources and historically depends on imports from volatile regions where the country is too small to project influence. This forces it to allocate giant sums to research and development as pivotal to economic growth.

Eventually, other areas will also be identified for development. The underlying principle is to deepen the country's scientific and industrial capability so it moves toward self sufficiency.

Experts on Singapore's economy positively contrast the government's proactive public policy in this area to that of neighboring Malaysia. They observe that the Singaporean government talks about expanding research, but also throws big money behind the projects as a concrete follow up. In contrast, politicians

and technical experts in Kuala Lumpur also pledge to strengthen Malaysia's performance here, but there is less actual investment in funding, materials and personnel. Singapore roars while Malaysia mews in this regard.

The total investment constitutes a 20 percent climb over the next five years and will also address bio-medical, water technology and multimedia industries.

The sum is 1 percent of gross domestic product, from 2011 to 2015. Lee added that he expects private companies to invest at least 2 percent of GDP on research.

"Our long-term aim is to be a research-intensive, innovative, and entrepreneurial economy just like Sweden or Finland or Israel," Lee said. "If we can be like them, we can create high-quality jobs."

Thus far, Singapore has persuaded many leading firms that include pharmaceutical makers to set up research labs.

In fact, Singapore's export growth picked up in August because electronics and pharmaceuticals sales regained their health. Non-electronics shipments, which span petrochemicals and pharmaceuticals, went up 29 percent. Pharmaceuticals alone leapt forward 64.7 percent after dropping 22.3 percent in July.

Overall, the country has 5 million people at the

southern tip of the Malay peninsula. It is over three quarters ethnically Chinese with Malays and Indians constituting the remainder, in that order, with a sprinkling of the Western or Japanese expats who often constitute much of the managerial class. It became independent from Malaysia in 1965. Its population was small compared to its Malaysian and giant Indonesian neighbors, who were also ethnically Malay and Islamic compared with Singapore's Confucian Chinese.

Lee's announcement came after a three day parlay over research and innovation strategy for the next half decade. It typifies the government's talent for gathering its many well educated technocrats for long-term planning and commitments.

Singapore is optimistic because it is a contender to be the world's fastest-growing economy in 2010 after a stunning 17.9 percent boom in 2009's first half. However, observers warn that foreign demand may slacken.

"Leading indicators are pointing toward slower export activities ahead," said Irvin Seah, an economist at DBS Group Holdings Ltd. in Singapore.

"The purchasing manager indices across key markets are also tapering off as companies are holding back their purchases in anticipation of slower demand ahead." AP

Continued from Page 43

waste, increases yield, improves asset utilization, and give alerts when problem arises. The ERP system helps people to focus on process improvement and not on compliance issues.

Quality being a chief requisite in pharmaceutical products, e-resource ERP has an integrated quality control module that controls quality by controlling plans in purchasing and production. The module also offers a real-time process capability index for a quick review.

ERP manufacturing solutions enhance visibility into systems and enable proactivity. The planning process can be automated to deliver the right product at the right time and within a set budget. Such solutions are used by quality-driven industries also like aerospace and defense; food and beverage processors and packagers; machinery component manufacturers; medical device producers and in the automobile industry.

In India, the automotive component industry is growing at a fast pace. To be competitive, ERP systems are required. Inventory costs shoot up due to lack of real-time information and visibility into the work-in-progress stage. ERP helps plan out production to stick to delivery schedules.

Most ERP specialists are capable of offering solutions for different industries. BNG Infotech Private Limited based in India offers ERP solutions for the auto parts, leather, pharmaceutical and apparel industries.

ERP for automotive manufacturing processes encompassing make-to-stock, make-to-order, configure-to-order, engineer-to-order, just-in-time manufacturing and materials control and lean operations help enhance operations. ERP implementation also helps gain business visibility; streamlines production; gives accurate, timely information and offers global reach, better inventory visibility and reduced distribution costs.

In the case of automotive suppliers, information and processes have to be integrated within the company, between company personnel and suppliers and customers. This way, all changes can be tracked and required action taken when required. ERP provides the necessary integration by implementing collaborative processes.

In the present dynamic and competitive marketplace, it is imperative for companies to gain operational excellence to be well ahead. To maintain the growth and face global and domestic competition with confidence, IT is being leveraged to the maximum. AP

ON THE WEB

ERP Logistics Solution
www.erpwire.com

Companies Mentioned in Article
E-resource
<http://www.eresourceerp.com>

BNG Infotech Private Ltd.
<http://www.bng.co.in>

VIRTUAL REALITY IS VIRTUALLY HERE

BY SHAMILA JANAKIRAMAN

Concentric Asia Pacific launched the Virtools virtual reality software in 2007 that encompasses solutions for mining applications, project development, production planning, communication and simulated computer-aided manufacturing. These digital mock-ups enable mining companies to create virtual scenarios of situations in production, safety, evacuation, and administrative issues to check the outcome.

DELMIA from Concentric is a digital manufacturing solution that gives a holistic view of enterprise operation by integrating the human element in the form of virtual mannequins and analyzing all processes.

Selling products and services online is not a new concept, but the experience offered to prospective customers can be made enthralling enough to encourage an instant purchase. Vox360, an India-based virtual tour provider promises 360 degree view of tourist hotspots, real estate, automobiles, hospitals, corporate infrastructure, educational institutions etc.

"Virtual reality will be bigger in China than in the west because it is pure release, just like video games today," said Tom Doctoroff author of "Billions: Selling to the New Chinese Consumer." Online gaming based on VR is a revenue grosser in China with research firms RNCOS and iResearch predicting a \$ 10 billion market by 2012.

U.S.-based EON Reality's aerospace VR simulation system imple-



COMPANIES, INSTITUTIONS MENTIONED IN THIS ARTICLE

Concentric Asia Pacific
www.ferret.com.au/c/Concentric-Asia-Pacific

Vox360
www.vox360.in

POSTECH
POSTECH, Korea
<http://hvr.postech.ac.kr>

Sergey Novikov | Dreamstime.com

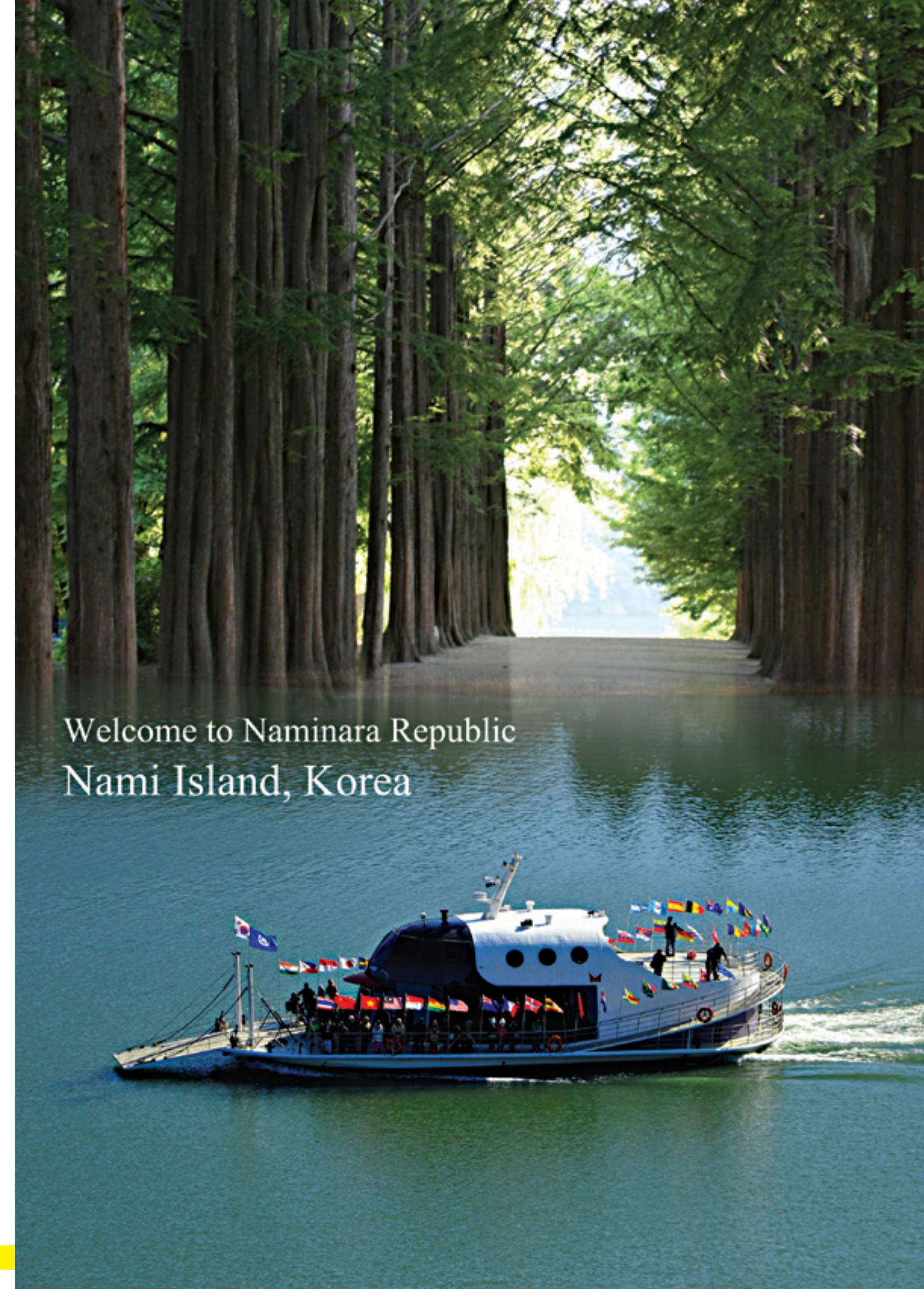
mented in China helps design, control, test and launch new materials and technologies in satellites, missiles and aircrafts. The simulation system comprises a three single-channel projection system and a single three-dimensional wall system to display real-time data transformation parameters of equipment, instrumentation and information in virtual scenes.

Haptics and Virtual Reality Laboratory at POSTECH in Korea facilitates research in understanding sensory motor characteristics of our body and developing of a computer-controlled system to physically interact with virtual or remote environments by sense of touch.

VR can be used in psychological treatment as in the case of soldiers who suffer from post traumatic stress disorder. Anthropological studies are also assisted by VR as in the study of brain fossils of our human ancestors found in Indonesia. The studies showed abnormal brain growth for their diminutive size.

University of Indonesia Green Eco-campus has implemented a VR environment using 3D-Games Studio and 3D E-Dimensional Wireless Goggle. The graphics imitate real world elements like bicycle movement, camera perceptions, and object collision with obstacles. Users' response to VR environment will be studied for further development.

Using VR, we can create our own TV News program in real time 3-D with a customized avatar with face similarities and own voice or use text-to-speech technology. Ongoing research promises more interesting innovations which will let us do more and even do what we would not attempt otherwise in real life. A-P



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Innominds

US Address

2055 Junction Avenue, Suite 122,
San Jose, CA 95131
Phone: 408-434-MIND
Fax: 408-904-5820

India Address

#8-2-334, SDE Serene Chambers
1st Floor, Road No. 7
Banjara Hills
Hyderabad - 500 034
Phone: +91-40-66126300
Fax: +91-40-66126330