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ASIA-PACIFIC

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Vol. 2, No. 8, 2010

G-20

TORONTO

Summer Gathering of Major Economies a Breeze of Progress

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Contents

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Vol. 2, No. 8, 2010

Cover Story

G-20 Summit
A Breeze of Progress
Pages 6-9

Korea Hosting Global Summit: A Show of Success | **Pages 10-11**

SPECIAL REPORT | Pages 28-31

Despite the Tensions: Baengyeong Island is Calm and Beautiful

Q&A

COVER STORY

G-20 Toronto: *A Breeze of Progress*

Leaders Vow to Boost Wishy-Washy Recovery

BY DON KIRK

The town of Huntsville, especially during a Canadian summer, is normally known for its low-key residents decked out in cut-off jeans tossing another hot dog on the backyard patio grill – and smilingly offering it to a visitor.

During the June 26-27th weekend, however, this once obscure, now better known town played host to dozens of world leaders who gathered there for the annual G-20 summit of major world economies. It co-hosted the event along side Toronto, a successful city popular for its ethnic mix, civility and economic activity on the shore of sparkling Lake Ontario.

The agenda was ambitious. It spanned issues that included the pressing need among the leading Western countries to reduce their national debt loads to foster job growth; increased aid to the Third World; China's intentions on whether it will revalue its yuan currency to benefit its exporting trading partner; etc. In addition, one expert insists that the parlay convinced the rising super power that the Anglo-American capitalist model is doomed.

Politically, it was also a chance for Japan's new prime minister to introduce himself. He is still the manager of the world's second largest economy, although some analysts predict that the island's rising super power neighbour will exceed it this year. Other leaders who boosted their name recognition hailed from India – and South Korea.

Overall, experts insist that the confab was certainly not a failure; however, it merely mimicked Canada's gentle mid-year breeze as a mild force for change rather than blowing like the powerful north wind farther north. Some won, others came to a draw or left disappointed, as at most sprawling international events where goals broadly overlap – but differences exist – in agendas and personalities, which also explains the protesters and arrests.

Business and Technology writer Robert L. Scott offers readers this exclusive, detailed review.

Winners and Losers

The famed Reuters news agency cut through all the rhetoric, promises and ceremony when it offered a sober analysis of the summit's victors or otherwise.

On its final day, an official statement said that the participants' priority was boosting the wishy-washy Western economic recovery after the downturn of 2008 and preventing deeper deficits, but without hindering growth and job creation. As for specific outcomes:

Canada's 50-50 Result

Canada's conservative Prime Minister Steven Harper argued that his country's banks escaped the world financial crisis without government bailouts. He opposed a global tax on banks to create financial rescue packages for those carrying toxic or non performing debt burdens. The G-20 only mentioned the tax idea – giving him a win. Harper also won support for his concrete deficit and debt reduction numbers. However, the Canadian public and commentators hit Harper over the whopping $1 billion price tag for security.

The United States: Obama as Half Winner

President Barack Obama started the summit with much prestige. Just before it started, the Congress agreed to pass a bill promoting the most far reaching financial rules in 70 years, which Obama championed. But he achieved little during his northern neighbour's

crisis and plunging currencies caused them to value budget austerity. Obama feared that it would undermine the US's fledgling recovery. He also rejected many provisions in the Doha round of trade liberalization talks and called for their reform when more Americans fear that globalization is shipping their jobs overseeas. Obama met little substantive opposition.

China Touts its Own Beijing Model:

What an ironic twist from China. Before the summit, it finally de-pegged its yuan currency relative to the greenback so the latter strengthened about 5% against the dollar, apparently giving into world demands for a revalued currency that would make imports cheaper. But in Canada, Chinese officials successfully scotched the final communique's praise for this action. They feared that the compliments would only create pressure for more revisions. This is a sign that Beijing will continue to stick to its weaker yuan policy that has underpinned its export surges.

Indian scholar Brahma Chellaney, author of the international best seller "Asian Juggernaut: The Rise of China, India and Japan," is a professor of strategic studies at the Center for Policy Research in Delhi. His analysis is that after the G-20 summit, the Chinese will tout their own development model with greater confidence. They perceive the Anglo-American capitalist model's decline and especially the end of US dominance.

After all, Beijing's officials and policy wonks observe – often smilingly – that for years, the so called Washington Consensus that London and world financial institutions, e.g. the International Monetary Fund (IMF) and World Bank (WB) endorsed was Western orthodoxy. It called upon economies to liberalize, deregulate, privatize, get the state out of the way, cut taxes, ensure "fiscal responsibility" through higher interest rates to deter frivolous borrowing, over capacity, speculation, etc.

However, when the two Western powers encountered distress in 2008, they abandoned their own "hands off" advice in favor of governmental bail outs of failing industries such as Detroit car makers and greater regulation of the money markets.

Chellaney adds that the 2008 global crisis mortally wounded the U.S., or so believes China. The former's budget deficit forces it to sell treasury bonds to – of all countries – communist China so that Washington has liquidity. With China propping up America, although the latter is technically the world's sole superpower, the balance of power and leverage overall has shifted to China. It can even politicize the situation, claims Chellaney, for instance using its power to neutralize US support for Taiwanese independence, claiming the South China Sea as its core – exclusionary – interest, etc. Overall, China concludes that its own Beijing Consensus strategy of an autocratic state directing a limited market is better, thinks Chellaney. That framework has conferred robust growth and stability such that the global crisis barely dented it.

As Chellaney was quoted as saying in the Scotsman, "Despite perpetual talk of an overheating economy, China's exports and retail sales are soaring, and its foreign-exchange reserves now approach 2.5 trillion dollars, even as America's fiscal and trade deficits remain alarming."

The Other Asian Rising Star: India

It is a sign of the times that the Canadian meeting witnessed the presence of two Asian stars, i.e. China and India.

Harper and his Indian prime ministerial equal, Manmohan Singh, talked on the summit's sidelines about increasing bilateral business ties and Indo-Canadian relations overall.

"Canada and India are developing the tremendous potential and our relationship is rapidly expanding with commercial, cultural and educational ties. We look forward to working with prime minister Singh to further capitalize on our shared strengths," Harper later said.

India exercised its soft power, too. Summit partici-

pants praised Singh for his vision and skill in promoting almost 9 percent economic growth in India and even compared the turbaned Sikh to bald, Hindu Mahatma Gandhi. Bollywood star Akshay Kumar accepted Harper's invitation to be the guest of honor and was a hit.

Japan: Stagnating Sumo Economy

As for Tokyo, it opposed the global bank tax before arriving, so welcomed its partners declaring it merely optional. Japan maintains that its national deposit insurance scheme is a substitute. However, experts say that it will fail to honor the developed countries' pledge to cut deficits by 50 percent over three years and stabilize or reduce government debt-to-GDP ratios by 2016. Yes, the communique welcomed Japan's recent fiscal reform and growth plans; however, it referenced its "circumstances," meaning its comparatively very shaky finances.

Japan Prime Minister Naoto Kan was warmly welcomed. Many noted that he is the fifth national leader in three years, however. Experts say that such weak, transient leadership hinders the struggling sumo economy from recovery and from playing a wider global politico-strategic role, too. It looks like Japan is a fading star.

South Korea's Lee Wins as Next Host

In a sense, South Korea President Lee Myung-bak was in a smaller spotlight because he will host the dignitaries at the Seoul G-20 summit slated for November in Seoul. In Canada, he laid the ground work when he insisted that South Korea will coordinate the effort among members to create a global financial safety net at that latter parlay. He underscored that many developing, smaller nations suffer from the impact of volatile currency fluctuations and claimed that Korea will speak for them. Before the Seoul summit, Lee will host 100 global CEOs to explore methods to boost private investment, global trade and corporate responsibility.

On the sidelines, Lee garnered his colleague leaders for support in condemning North Korea's deadly attack on the Cheonan, a South Korean naval corvette, that killed 48 sailors in March. President Obama and Japan's Kan most dramatically stood shoulder to shoulder with Lee. The two Northeast Asian leaders also pledged to have a "future oriented relationship" this year, which marks the 100th anniversary of Japan's colonization of Korea. Protesters With a Different Vision

They shouted "We are people, too!" as one slogan to communicate their rejection of the G-20 summit and more generally the policies of major economies.

This collection of anti-capitalist groups; trade unions; community, civic, student, environmental and women's organizations charged that the summit participants favor corporate profits over socio-economic equality; that they exploit workers, especially in low wage countries where many multinationals produce value added goods; and threaten the environment.

After resorting to violence in Toronto that stunned the host nation and its guests, up to 900 protesters were arrested, embarrassing host Harper and denting Canada's squeaky clean image. A support march then ensued in Montreal on July 1, Canada's national day, under the auspicies of the Anti-Capitalist Convergence to criticize the Toronto police's alleged heavy handedness. Some sported tins cans around their necks, soliciting donations to pay the legal bills of their Toronto allies.

The Canadian public and commentators hit Harper over the whopping $1 billion price tag for security.

One unionist, Francis Lagace, claimed that "Those people were arrested without knowing why. They were detained in horrendous conditions ... This is a clear violation of human rights in Canada." But Danie Royer, an ACC spokeswoman, admitted that after spending between 24 and 48 hours in jail, most detainees were released without charge.

Every G-20 economic confab sees such feverish protests -- and often violence. It is a testament to how the G-20 summit, which centralizes world leaders and policy making decisions, has become the main venue for left wing agitators. It remains to be seen whether China, with its growth above all, damn the corruption, worker and ecology strategy also draws their ire. If so, how will the prickly dictatorship -- determined to win respect -- handle voices that it cannot control? A-P

CANADIAN PRIME MINISTER
STEPHEN HARPER

G-20: SEOUL

Korea Says its Ready to Wow G-20 Powers

BY ZACH BARDON

Remember the 1988 Seoul Olympics? They put South Korea on the map as a global force that had risen from the ashes of the Korean War and 35 years after the signing of the armistice in 1953, was ready to step into the international spotlight for all the world to marvel over its accomplishments.

Now Korea is gearing up for another display that's sure for a brief period in November to dramatize Korea's importance in quite a different context. The occasion is the G20 summit on Nov. 11 and 12 in Seoul, a gathering of leaders from the world's 20 most important economic powers. The mission of the G20 is to work out a consensus on agreements for solving the world's economic ills at a time of widespread uncertainty, and the fact that President Lee Myung-bak is hosting the meeting symbolizes recognition of Korea as one of the world's leading centers of business and industry.

"The G20 will be an important step for Korea," said Victor Cha, a professor at Georgetown University who directed Asia policy on the White House staff during the presidency of George W. Bush. "Like the 1988 Seoul Olympics," said Cha, talking at a forum here on Korean economic development, "it will be a step to show Korea punches considerably above its weight in the international arena." Or, as Scott Snyder, long-time Asia Foundation expert, put it in the same forum, "the challenge for the Korean government is to market it as more than an event" but rather "as a platform for Korea to show its development."

The G20 summit, however, raises security concerns that go far beyond that of demonstrators protesting the presence of the leaders of 20 nations all converging on Seoul to sort out global economic issues. Cha warned of another terrorist attack by North Korea. "Anything that's a success for South Korea is a threat to North Korea," said Cha at the forum. "That's worrisome." As a precedent, he

cited the explosion of a Korean Air plane over the Indian Ocean in November 1987 in which 115 people died less than one year before the Seoul 1988 Olympics. It's suspected, said Cha, that North Korea deliberately timed the explosion, set by a pair of agents who had planted a bomb in the plane before getting off at a stopover, for the run-up to the Olympics.

If North Korean terrorism did nothing to stop the South from staging the Seoul Olympics, however, it's certainly not going to deter the South from the G20. No one is working harder to make the summit a success on the world stage than SaKong Il, a former finance minister who for years has been running a prestigious economic think tank in Seoul and now chairs the presidential committee for the summit. "We've got 120 people working day and night," said SaKong, talking in Washington at the Peterson Institute for International Economics. "Sometimes we're only getting two or three hours sleep a night."

SaKong himself, besides directing the committee, strives to publicize the summit at venues ranging from the United Nations in New York to think tanks in Seoul and elsewhere, convincing audiences that the G20 is actually more important than sessions of the G8, the eight leading economic powers. "We live in a deeply integrated world," says SaKong."The problems in our part of the world become the problems for all."

SaKong was talking after attending the G20 summit in Toronto in June at which leaders spoke in very general terms about resolving an economic crisis that has a way of recurring just when it appeared to have subsided. "We all expected the Toronto summit would focus on a basket of policy options," said SaKong. "Many expected exit strategies to steal the limelight." In fact, "fiscal consolidation stole the limelight," he said. "Leaders promised plans for fiscal sustainability, for dealing with the fiscal crisis in Europe," turning to "the monetary side to support sustainable recovery." As far as SaKong was concerned, perhaps the most substantive aspect of the final communiqué was the emphasis on the need to follow up at the Seoul summit. "I've never seen a communiqué which mentions an upcoming summit so many times," he observed.

If the results of the G20 summit in Toronto seemed deliberately vague, the leaders when they meet in Seoul should have the chance to get down to specifics. In that spirit "the Seoul summit can become a landmark in institutionalizing the G20 summit as a new landmark for international cooperation," said SaKong. "We are closely cooperating with G20 member countries to make the Seoul summit another success."

If G20 is to be a success, however, the leaders at the summit will somehow have to go beyond the level of clichés inherent in French President Nicolas Sarkozy's emphasis on "unity and coherence" SaKong hopes that "will provide the momentum for the G20." At the same time, he sees Korea as exercising its own distinctive influence by "paying close attention to the voices of the developing world." Thus, he said, "We are very actively and seriously engaged in outreach activities" that will demonstrate conclusively that the G20 "is a better forum" than the G8. In the end, he said, the Seoul summit will prove that the G20 is "the premier forum for economic and financial cooperation." Disappointed with lack of real results from the G20 in Toronto, Sakong said flatly, "We have insisted that leaders will recommit so that we can get results from the Seoul summit" particularly in the areas of trade quotas and barriers.

At the same time, SaKong envisions the Seoul G20 as forging ahead in new directions. "In addition to the follow-up agenda," he said, "we would like to add new items in economic development and a global financial safety net." Rather than come up with still more generalities, SaKong offered assurances that "we will take a focused and targeted approach on infrastructural development and education." Emerging and developing countries, he said, "will have strong incentives to generate sources as insurance for growth." The new agenda for the summit, he said, "Will help not only the developing world but also the G20 framework."

Nonetheless, C. Fred Bergsten, director of the Peterson Institute, moderating SaKong's appearance, raised an essential point. "So far the G20 summit has been largely a fire-fighting mechanism," he said. "For the G20 to be sustained, it will have to segue from a firefighting mechanism to a systems manager." The question was whether the G20, meeting in Seoul, could accomplish that goal. "We should concentrate more on post-crisis economic management," SaKong responded. "At least we should lay the groundwork." After all, he argued, "the success of the G20 is important not only for Koreans but for the global economy." At the same time, he added, "I just hope by November the situation is better" so participants in the summit would not have to worry about finding solutions to immediate emergencies in the global economy.

SaKong made an implicit connection between the G20 and the Korea-U.S free trade agreement. The connection between the two seemed logical considering that U.S. President Barack Obama, at the summit in Toronto, had promised in a meeting with President Lee to try to win approval of the KORUS FTA by the U.S. Congress. "I was very pleasantly surprised," said SaKong. "It is really a win-win. Both sides should work together economically." SaKong noted that China has become far and away South Korea's biggest trading partner, accounting for 23 percent of all the South's foreign trade as opposed to 11 percent with the U.S. and 6 percent with Japan. Ratification of the FTA, he said, would be "not just an economic thing" but a move with "important geopolitical implications" that "will work out for the benefit of both countries." After three years of foot-dragging since negotiators worked out the terms, however, SaKong saw time as of the essence. "We better hurry," he said.

Approval of the KORUS FTA would inevitably have a positive impact on the G20 summit – and help to "contribute to making G20 a real premier forum for international cooperation." G20, said SaKong, would vastly broaden Korea's horizons and outlook. While the Seoul summit "has previously been described as fire-fighting," he said, "we have national and regional and global interests." In the end, "no nation can prosper without global interests." With such a leadership role, said SaKong, "you don't want to champion a region." The question to be asked, he went on, is, "Is it a global interest which happens to help the region?"

One special advantage, said Bergsten, is that "Korea still has the most brilliant development record of any country." Yet another advantage, he added, is Korea's place among the G20 – "in the middle range in terms of income, nestled between high and lower income economies."

Korea's place in the middle among the G20 countries leads to analysis of Korea's proper role as a middle-range power generally. Scott Snyder, who spent several years as director of the Asia Foundation in Seoul before transferring to Washington, sees President Lee as envisioning "the idea of a global Korea" whose "rise is a product of the current system." Now, he asked, "How will Korea position itself and manage differences with the U.S. in the context of China's rise?" Park Myung Lim, a professor at Yonsei, viewed "the rise of Korea as a middle power" as "the offspring of confrontation and the passion of the Korean people" in the struggle for democracy.

"The whole notion of South Korea's rise as a middle power leads to the question of what is a middle power," said John Park of the U.S. Institute of Peace. "South Korea is different from other middle powers as it faces a security threat." In the aftermath of the sinking of the South Korean navy vessel the Cheonan in March, however, he saw Korea "moving away from the idea of a middle power and more as an ally of the U.S."

Katy Oh of the Brookings Institution moderated the panel on the international environment surrounding the Korean model of development at which Cha, Snyder, John Park and Park Myung Lim all spoke. Any visitor to Seoul, she noted, would sense the dynamism of Korean society and the emergence of South Korea as a global economic force. Asked about the significance of the G20 summit, she had no doubts about its meaning for Korea regardless of Korea's role as a middle power or an American ally – or both. She urged her audience to read a series running in a newspaper in Seoul entitled, "From Rags to Riches" in which experts have been extolling Korea's achievements. "All the global observers will be mesmerized," she said. "Korea is telling both China and North Korea, 'Look what we have achieved.'" A-P

SOUTH KOREAN PRESIDENT
LEE MYUNG-BAK

WORLD

Lotus of Wealth in Mud of War

BY VICTOR FIC

When 70,000 North Korean soldiers filed across the 38th parallel during the rainy pre dawn of June 25, 1950, their aggression sparked a three year flame of destruction. After the armistice doused the flames in 1953, South Korea's per capita GNP was under $100 per year.

To humanize that figure, the Ford Motor Company used as much electricity during the mid decade as the entire country. Teachers taught penurious students to tie their pencils shortened from wear and tear to twigs for extra use. An ironic Buddhist teaching comes to mind; from the muck and slime grows the pure and beautiful lotus. Adversity breeds life. But this ancient truth played out here as rice paddies gave way to industrial parks, tin shacks to high rises and twiggy pencils to an IT industry.

In truth, "miracle growth" occurred in Japan, too. By mid-1945, American firebombing raids had carbonized some 6 dozen Japanese cities. The air raids so ruined the transportation network that Japanese planners predicted a famine for mid-1946 that would kill about 8 million people. By 1973, Japan was the globe's second largest economy and its diet touted for promoting health.

How to explain the Japanese and Korean transformations? Some – counter intuitively – insist that the world war, Cold War, Korean War and Vietnam War were the slime in which their lotus of post war wealth blossomed.

The world war that Japan lost and its smaller Korean successor that stalemated here so ruined their respective economies that afterward they – involuntarily – held major assets. These spanned weak currencies, which boosted exports; low labor costs; preferential access to the huge, rich markets of Cold War allies; official national programs under planning czars; hard working, focused populations literally hungry for success; military protection from a superpower patron, which reduced their defense outlays and protected the sea lanes through which they imported raw materials and exported value-added finished goods; state of the art, imported technology in fledgling industries, e.g. textiles that was superior to their competitors aging plants.

David Russell, a Tokyo-based award winning author on the Japanese economy, notes that 1947 was "the period of the Dodge Line." Joseph P. Dodge was the Detroit banking chief who set the yen's value at a floor-low 360 to the dollar – exports soared. This was a "U.S.-imposed policy designed to reform the Japanese economy, make it more market-oriented, and help it to grow as an integral part of the U.S. Cold War strategy in Asia," he explained to this author in an exclusive exchange.

Many experts reject the popular notion that "Japan achieved economically what it failed to do militarily" as misguided because it grew after Washington "laid a new framework ... and planned for it to grow and expand in Asia."

While Koreans suffered during their 1950-53 war, it was a boon to Japan, the U.N.'s forces staging and production area. For instance, the former ordered trucks from Japanese makers, injecting vital capital into the nascent vehicle industry that later produced cars. As for its self-professed post-1945 pacifism, it passed the burden of defending its neighbor to others, but did not discourage Japan from reaping war related profits.

The numbers proved it: in 1951, Japan's GNP was $14.2 billion, but by 1955, it had reached US$22.7 billion. By 1960, Japanese Prime Minister Hayato Ikeda inaugurated a national income doubling plan slated to take ten years. After only eight years, it was a success in part because Tokyo had started low with the above advantages.

As many American historians on Korea such as Bruce Cumings have recorded, South Korea's own "war boom" was the Vietnam conflict. The U.S. ambassador to Saigon, namely Henry Cabot Lodge, visited Seoul in 1965 to implore it to dispatch troops. Through hard nosed negotiations, the ROK convinced its ally to pony up cash and aid. The Brown memo of 1966 records that $1 billion went to South Korea between 1965-70. This was about 7.5 billion per division as 320,000 soldiers in the Tiger Division and others notorious for brutality pulled the trigger on their fellow Asians, never mind Koreans condemning Japan and the West for "interventionism." Between 1966-69, the funds amounted to 19 percent of the ROK's foreign exchange earnings.

In addition, the chaebol especially won construction contracts for the war zone that fattened their coffers, deepened their experience in international commerce and boosted their name recognition. Cumings notes that 94 percent of Korea's total steel exports and 52 percent of its transportation equipment sales were scored there.

General Sherman famously warned that "War is hell!" During this summer, which marks the 60th anniversary of the Korean version, we should honor the U.N. soldiers who fought for freedom and unification here. But we might also reflect on the Buddhist insight noted above about how the seed of Japan and Korea's post war flowers of affluence sprouted in the soil of bloodshed. A-P

Q&A NIKHIL JAIN

Elitecore Technologies, a provider of Telecom Software (OSS/BSS) solutions recently announced 10 successful wins for WiMAX 16e & 16d in SEA, APAC & Eastern European regions. The company has experience in serving Tier1-Tier 3 service providers in deployment of the WiMAX 16e &16d CSN platform.

Nikhil Jain, COO, Elitecore Technologies, spoke to Asia Pacific Business and Technology Report about the company's strategies and future plans in the region.

BY STAFF REPORTER

What are the diversification plans of Elitecore Technologies?

The major plans would be in the Telecom & Security segment and the key strategy will be Inorganic growth through mergers & acquisitions. We are very aggressively positioning ourselves in the SEA, APAC and African markets. We already have experience deploying NGN solutions to the leading operators in these regions, and we will continue to focus in these markets.

What were your main strategies to maintain leadership during an economic slowdown?

During the slowdown we invested heavily on our R&D and market research activities, which helped us in developing our product portfolio as per the changing market needs.

During the recession in some European markets, have you shifted your focus to new geographies?

We have a very limited exposure to the European market. Our major focus areas in terms of geography have always been the Middle East, APAC, SEA and Africa. Our focus since the beginning has always been to enhance our presence in the data segment in developing market. So we have not lost our focus and have continued to do so during the slowdown, which has helped us in getting significant business volumes – even during the slowdown.

Q:What are your investment plans in India?

We are planning to invest close to 145-150 cr in the next 2 years. In terms of our investments, the major focus will be on enhancing our presence through mergers and acquisitions. We are also planning to invest heavily in the VAS and unified communications segment. The unified communications solution not only offers reduction in travel time, but also better sales closure and, subsequently, increased revenue generation.

Even though it is not a new technology, since unified communications has been around for a couple of years, the integrated unified platform is emerging as the need of the hour. The fact that the individual components of unified communications are already witnessing healthy

double digit growth numbers is encouraging too. For instance, emailing and IP telephony is growing at 20 percentage and 30 percentage CAGR respectively. Even though the market adoption of unified communications has been slow so far, according to IDC, the UC market is expected to expand annually at a rate of 25 percentage to reach $1.32 billion by 2011. The arrival of unified communications signals the beginning of the convergence of VoIP telephony, e-mail, instant messaging, mobile communications, and audio and video Web-conferencing into a single platform that shares a common directory and common developer tools. The other pieces of the unified communications portfolio include the conferencing and collaboration tools and unified messaging tools.

Q:Following the BWA spectrum auction, what are your strategies to focus on WiMAX segment?

Post BWA-spectrum auction, we have shifted our focus on the WiMAX market in India. We have recently announced 10 successful deployment of WiMAX 16e & 16d CSN platform in the last 18 months that shows our seriousness in this segment. We are among the leading vendors globally, having experience deploying WiMAX solutions for leading operators. We have a very strong presence in this segment with range of products from AAA, Rating & Charging and Policy Management which gives us a very unique position in the OSS/BSS segment. Also we have Pre Integrated WiMAX Solutions in our kitty which enables us to reduce the TCO and time to market for the operators. The key USP of Elitecore are:

Single Vendor for Billing, Revenue Management & Subscriber Management - In a highly competitive market Elitecore offers an advantage to telecom operators by offering Complete Charging, BSS, Policy Management & AAA solution under one umbrella thereby reducing integration time and costost for providers a key USP of Elitecore

Multi Vendor Agnostic Elitecore product suite offers open, expandable APIs and multi tier architecture making it easy to integrate with multiple vendors – billing and customer care platforms, a back office layer, network elements, VAS providers in the operators ecosystem, Elitecore is also pursuing actively IOT with all leading vendor in the ecosystem to offer a complete solution to the operator.

Access Network Agnostic – Elitecore's CRESTEL & Elite AAA platform accommodates multiple technologies like 2G, 2.5G, 3G and WIMAX simultaneously, over its convergent framework, supporting rapid geographical rollouts and enabling service providers to deliver a simple, converged solution to customers with a unified view, irrespective of the type and number of services

Ability to offer modular and end to end solution – Elitecore product suite is an integrated application, which can be deployed as an end to end solution or as individual modules. Once installed the operators can expand the modules, licenses and products as the service provider business requirements. Operator does not have to buy the complete billing they can buy individual modules, thereby reduce cost for the operators unlike other big billing vendors who offer the complete billing and not modules.

Single team to address Consulting, Development & Implementation – Unlike other vendors in the OSS BSS space, Elitecore offers end to end support from a single team to address consulting, development and implementation thereby reducing time to market and the time required to integrate with different teams.

Price benefit – Elitecore offers a cost advantage vis a vis competition, as we have all product developed in India.

Flexibility in delivery – Elitecore offers flexibility in delivery and implementation by offering order and management services post sales or offering Managed services (software as a service) and professional services at far more competitive rates than competition. Being based in India we understand the complexity at the operators ends and offers solution customized to their business requirement.

Convergent platform for IP based services – Elitecore NGN OSS BSS is future ready to launch upcoming next generation services like IPTV, VoIP and data services on same platform. The solution is robust and scalable meets the current market requirement of TPS.

Solution compliant to standards – Elitecore solutions are designed in compliance to industry standards such as Etom, WiMAX Forum NWG Standards & 3GPP/3GPP2 standards. Elitecore solutions is also compliant to ATCA architecture. This brings flexibility to service providers in reducing integration challenges and dramatically speed time-to-market and associated development costs.

Do the forthcoming investments in 3G bring business to you?

In the 3G environment, operators are more focused on delivering services in more attractive packages over a convergent platform. Policy based control on the services will be the key priority of the operators, so as to enhance the user experience by ensuring QoS. Services like BoD, VoD require dynamic policy control so as to ensure that proper rating and charging happens for such services.

Thus the major requirement of Operators post 3G deployment will be for AAA, rating charging, and centralized policy management.

Major challenges would be:

Service velocity: The ability to quickly deploy any service to any customer over any network over whatever device or interface he or she is using at that exact moment

Automated service fulfillment: This includes user self-service, which slashes both capex and opex. A zero-touch, flow-through environment with almost no human intervention fulfills users' need for speed and virtually eliminates day-to-day human error from the revenue chain.

Competitive differentiation: In the coming age of IP ubiquity, soon virtually every competitor will be reaping the cost and flexibility advantages of a core IP network. But you can stand out by provisioning users and services rapidly and accurately, and giving them a greater hand in controlling their own services and features.

Yes the investments in 3G have brought business to us. We are working very closely with leading operators for deploying solutions for NGN services. We already have experience of deploying 3G/WiMAX solutions for leading operators across SEA and APAC which position as a leading player in this segment.

What are your strategies to retain top talent?

The first thing is our corporate culture, which imbibes our company's vision. We, being an equal opportunity employer, have open door policies, and collaborative leadership helps us in raising employee satisfaction. Second, being the customer and market driven approach for product positioning, transparency in operations and being performance driven organization helps us in attracting and retain top talent.

What are some new innovative products in the pipeline?

The innovative product offerings would be in VAS, content charging, customer personalization – which means giving the customer the ability to control their service experience. It means enabling customers to select and change the services and options they buy, allowing them to tailor their service experience to their own unique interests at any time. Such personalization creates a compelling buying experience for consumers because they are in complete control of their own experience and it creates freedom of choice by removing common barriers that currently create a less than satisfactory customer experience. IPTV networks, which send information over secure, managed, high capacity networks, empower IPTV service provides to deliver the personalization that customers desire. Also, we are working very aggressively on the Unified Communications solutions, which is the integration of real-time communication services such as instant messaging (chat), presence information, telephony (including IP telephony), video conferencing,

Continued on Page 26

CHANGING TECHNOLOGY TRENDS IN CHINA: 2010 AND BEYOND

BY ANURAG SHUKLA

As most of Europe and the rest of North America continue to reel from the second round of the global financial crisis, China's economic outlook continues upward. The first quarter of 2010 posted an 11.9 percent surge in economic growth, backed by an astonishing 48.5 percent jump in exports in May of this year.

Experts foresee this growth to continue in the coming quarters, as demand for Chinese products is still on the rise, despite the challenges and difficulties that have faced most markets during the past several months. The following is a brief glimpse into these market trends with a focus on the most economically viable opportunities as well as the highly risky technology-oriented trends in the nation.

EBooks, eBook Readers and Other eBook Devices

Leading the pack is the promising eBook sector, which includes the market for eBook readers and other eBook devices. The demand for these tech products have risen dramatically over the last few years and are expected to register more growth and opportunities for 2010. This is clearly evident in both the national and local levels with the rush of techno-conferences and other similar events all related to eBooks and associated products.

This trend is also clearly evident in daily suburban living, as more Chinese commuters are seen donning e-readers or are engaged in e-books on mobile phones. With China being the largest in the world in terms of mobile subscribers, the market for eBooks is expected to surge even more dramatically, as both eBook publishers and device manufacturers are jumping on the bandwagon to try and cash in.

Mobile carriers are working with publishers to open hundreds of thousands of eBooks ready for download for a price tag of a few yuan per file. This move would benchmark the successes of online giants Amazon's Kindle and other electronic-product portals that have had tremendous success in Western markets. This budding industry would have to compete with other sites offering free downloads regardless of copyright issues, as well as illegally circulated DVDs in the market, which can be purchased for less than a dollar.

The trend and popularity of eBooks started a few years ago with the China Digital Library Project, with an investment of over $137 million in an attempt to produce multimedia versions of almost 200,000 books. Although it was not expected that the whole population would ever benefit from this digital library, but this eBook collaboration between local governments and schools would work towards the resolution of potential copyright issues that would eventually result in more market demands for this product.

These eBooks can be downloaded through a wide variety of eBook readers and devices as well as 3G mobile phones. It is expected that the sales of eBook devices and readers will surge from the recorded 800,000 units last year to a projected 3 million units this years. Manufacturers are taking advantage of this trend with the release of new and innovative portable reading devices, including knockoffs of popular Western products such as the iPad, MacBook Air, Tablet PCs, and even a working Android tablet – releasing the products way ahead of Google.

Cloud Computing

Another big trend that is expected to produce gargantuan results is cloud computing, with strong support from the government of China and will be established in conjunction with the Special Economic Zone setup in designated areas in the nation. However, the Chinese government is banning server farm companies funded by foreign entities, thus providing the opportunities for local cloud computing companies to surge ahead in this market, including domestic cloud computing application services.

Cloud computing is basically Internet-based computing, wherein software, resources and other information are provided to users in the network on demand. As foreign companies as well as foreign application suite providers are banned in the country, local subsidiaries have worked with local governments on these projects

working and established strategic coo eration deals to provide computing, sto age and network services.

China's Search Engine Wars

The world was shocked with the pronouncements made by Google that it will be pulling out of China, as the government maintains its censorship policies. This would mean goodbye to a highly potential Chinese online market numbering over 384 million and growing. With major online players like Google standing helpless against these Chinese policies, other foreign Internet companies are seeing a minimal chance of even denting this market.

The Chinese government is seeing the Internet search and social networks as threats to the social order and stability of the nation. Te so-called Great Firewall of China provided an opportunity for local and smaller search engines to dominate this market, with moves underway to include mobile phones and applications. Foreign companies wishing to jump into the fray would have a bigger chance of competing by removing any sensitive materials from their sites and focus on areas that promote job creation and economic gain – or face pressure and an eventual crackdown from the Chinese government.

More Crackdowns on Online Video

One of the reasons for the restrictions imposed by the Chinese government on Google is the proliferation of links to pornographic content from its search engine portal. This prompted the government to initiate a high-profile crackdown on online porn. This includes the requirement to include the Green Dam-Youth Escort filtering software for all new personal computers on sale in China starting July of last year. This aroused huge controversies among the Chinese public, which complained of a privacy invasion and information blockage as a result of this software.

The government has extended this stance on online materials and has initiated a crackdown on online video as well, particularly websites with copyright infringements. These restrictions were not relegated to foreign portals, but include all privately-funded online video websites in China. This left millions of Chinese Internet users no access from their previous torrent sites and free entertainment-related download sites. Websites wishing to reopen would need to resolve any potential copyright issues with their content and would need to undergo validation from the State Administration of Radio, Film and Television.

E-Commerce and Online Shopping

The prospect of marketing and cashing in from the more than 384 million Chinese Internet users is a viable economic prospect indeed, prompting both international and local players to engage and capture the e-Commerce market in this nation. This staggering figure is more than entire population of the United States, so tapping this market could prove to be lucrative.

Online payment portals like Alipay are making it possible for online transactions to proceed in the country in the same manner as Paypal with the rest of the world. This made online stores like Taobao to proliferate in the same manner as eBay but with a key difference – eBay charges fees while its Chinese counterpart relies on advertising revenues only. This makes it more attractive for Internet users to use these channels, where Alipay projects a yearly transaction that will surpass even that of Paypal.

Younger buyers have spurned this growth in e-Commerce in China, with this demographic more open and comfortable making. Compared to the U.S. average of 12 hours a week of Internet use for users aged from 13 to 28, Chinese users average 20 hours or more a week online, according to the Chinese Market Research Group.

With the Chinese government changing e-Commerce rules and providing more control and security for conducting e-Commerce transactions in China, more Internet users would eventually shift focus from traditional commerce to online purchases and transactions – a growth that is seen to increase a projected 90 percent surge this coming year.

Technology Conferences and Other Tech Events

The clear economic indicators that China enjoys make it logical for more technology-related conferences and other events to take place in the country. This is a rebound from the rash of cancelled events during previous years, resulting from the aftereffects of the global financial crises. The six-month World Expo in Shanghai is just one major example, but there will be a huge barrage of programs, exhibitions, seminars, conferences and other events related to technology.

International business and technology leaders are expected to come to these shores once more to attend various conferences and events that would feature industry leaders and other prominent speakers in the technology, academia, business and government sectors - all focused in discussing or promoting the latest in developments in technology, cloud computing, Internet, mobile communication, and other related topics.

These events and conferences will be held in China's top venues which include the Beijing China International Exhibition Center, the China Import and Export Fair Pazhou Complex in Guangzhou, the Shanghai Everbright Convention and Exhibition Center, the Shanghai New International Expo Center and the Shenzhen Convention and Exhibition Center.

These top technological trends in China will pave the way for the rise of various untapped markets that would benefit local, and eventually, international businesses and entrepreneurs wishing to take advantage and benefit from these indicators. As China continues to open its doors more widely in the technological arena, it is expected that more potential markets will continue to surface – which would eventually be the top trendsetters in the years to come. A-P

NEW E-COMMERCE RULES FOR CHINA

Measures Aim to Spur Online Transactions

BY ANURADHA SHUKLA

Although the use of the Internet has increasingly become more prevalent in China, the same could not be said with e-commerce, as people continue to be wary and hesitant to make purchases online. This would be a significant blow to an industry trying to penetrate the market of Chinese debit card holders numbering from 80 to 100 million and enticing them to buy any of the myriad goods offered by e-stores through online means. Tapping into this highly potential local market would be a tremendous boost economically for Internet store entrepreneurs as well as the overall Chinese market.

Recent changes in Chinese policies and rules on e-commerce can result in better reception among Chinese Internet users previously unwilling to purchase products online. These new policies offer better security and protection for consumers.

Issues and Challenges for E-Commerce in China

China is second only to the United States in terms of volume of Internet and network users as evident in the increasing and improving Internet-related environment and applications. The number of Internet-ready computers has more than doubled over the years and continues to grow rapidly, supported by better Internet infrastructure such as increased bandwidth capabilities and better wireless capacities.

Despite the stratospheric increase of Internet users in China, the proliferation of e-commerce is not as prevalent as expected, covering only 12.54 percent among total Internet services, as compared to e-mail and Internet gaming use. This attributed much to issues pertaining to e-commerce policies, security, credit, flow of products, and the overall Chinese consumer habit.

The importance of the Internet in relation to the Chinese economy was highlighted during the Boao Forum for Asia in 2009, with an emphasis on the importance and potential of e-commerce. However, there are still hurdles that prevent this from materializing. Primary elements to this effect involve the prevalence of PC viruses, a lack of an Internet-payment credibility system, as well as an online certification system for online businesses resulting in the untold millions or 80 percent of Chinese Internet users wary of putting their financial and personal information online. Many are avoiding Internet transactions in general.

Aside from that, the lack of industry regulations have resulted in the proliferation of fraud, gambling and illegal entertainment activities online. prompting the Chinese government to pursue and implement stricter rules and policies to allow only legitimate players in the e-commerce arena.

The following describes other issues and challenges that e-commerce and other Internet transactions face in China.

** There are no standard rules in Chinese e-commerce.*

The industry is currently at an initial stage and there are still no established legal systems to safeguard the interest of consumers and the general Internet-using public. The emergence of e-commerce players is developing too fast for policies and ordinances to be promulgated that would be favorable or acceptable to both online and traditional industries.

** There is a monopoly of Chinese telecommunications and a lack of industry standards.*

The Internet industry relies heavily on sound technology applications and infrastructures. However, due to the monopoly of the telecommunications industry, Internet technology development is left behind. Lack of bandwidth capacity, slow transmission speeds and high price tags of Internet access characterize China's Internet infrastructure and this has also contributed to differences in industry standards.

** The cost of investment in e-commerce is high in relation to current output returns.*

E-commerce, in order to be successful and profitable, requires wide assimilation to social strata and the Internet community. Despite the figures reported about increasing figures of Chinese PC owners and Internet users, these figures are still a mere fraction of the total number of families and potential Internet users in the country. In conjunction with other issues related to online purchases in China, this lack of infrastructure and users would result in minimal consumer purchases.

** The Chinese consumption habit is still rooted in traditional practices.*

Many people who are used to traditional consumer habits and practices, would be wary of purchasing online, opting to try things first before committing any purchases. As such, the Internet is relegated to communication and information gathering purposes and not for making purchases through online stores and e-commerce sites.

Bright Instances in China's E-commerce Industry

Despite the slow and often disrupted local e-commerce industry in China, the outlook is not as bleak as it appears. The biggest opportunities for e-commerce for China appear not to come from within but from overseas channels, particularly from the European market. This prompted the government to put in more support for bigger export initiatives by providing more premiums to business entities engaging in this area.

Chinese goods continue to be in demand in several markets, many of which were a result of business-to-business purchases in wholesale through e-commerce portals. This is why many upcoming entrepreneurs and business entities in China are bypassing traditional overseas middlemen from Hong Kong and other areas, resulting to Chinese products such as ornamental wares being sold in markets as far as Europe or Brazil.

Despite these current victories in the world arena, the same could not be said in the local e-commerce industry in China. The potential of tapping a wide market locally is enormous, thus requiring the need for more robust regulations and guidelines to set everything in place. Boosting this industry would not only have big economic implications from local sources but it would also boost the image and credibility of Chinese Internet stores in the Asian and world markets that have not yet availed of such Chinese services.

New E-Commerce Rules in China and How it Will Affect Internet Stores

Effective July 1, new policies was implemented by the State Administration for Industry and Commerce of China. These policies, aptly named "Interim Measures for Management of Network Commodity Trade and Related Services" specify that entities wishing to engage in online sales of goods and services in China through the Internet should provide e-commerce platform operators with their real identities, which include their verified names and confirmed physical addresses.

Part of these measures require businesses and enterprises to provide proper business registrations, licenses and other pertinent information to establish their true identity as a legitimate business. Individuals and businesses who can comply with these requirements not only will be allowed to set up their own e-commerce stores but their online stores will be given the right to carry certification badges for their websites, reassuring the public of their legitimacy.

Another important element in these new policies includes the checking and verification of products presented in these Internet stores for any potential trademark or copyright infringements of registered brands. Measures would be implemented by inspecting bodies to penalize offending websites, including the potential shutdown of the e-commerce site by the local Chinese authorities.

In line with this, business owners should undergo signed agreements with the certifying bodies and e-commerce platforms to establish the rights of the e-commerce site owners as well as their obligations, particularly in the commitment to provide quality products and services. If the Internet stores could not comply with these requirements, they will be eventually shut down.

Such arrangements would be beneficial for the general consumers end eventual clients of these e-commerce sites and Internet stores. These policies will protect Internet users from unscrupulous individuals trying to swindle buyers from their hard-earned money or providing inferior products which are far different from what would be featured in their Internet stores and e-commerce sites. Aside from that, illegal entities or business operating in illegal industries will be shut down and eliminated, leaving legitimate business entities to continue providing quality products and services to the public.

With these security channels and consumer protection, the general public and most Internet users in China would eventually be attracted to explore the e-commerce realm. They would be more secured in providing financial information to verified sites in order to purchase various goods and items from the Internet. As more policies and structure are established, more and more Internet users all ready and able to purchase online would turn to these online channels for their goods and other items they need. A-P

IS INDIA READY FOR 4G?

BY ARUN SATAPATHY

Recently, India successfully auctioned 3G spectrum and fetched Rs. 67,719 crores - double than originally estimated by the government. Soon afterwards, the telecom regulator of India – the Telecom Regulatory Authority of India (TRAI) - had announced its plan to bring out the recommendations on 4G technology by the end of the year. According to TRAI Chairman J. S. Sarma, it will be ready with recommendations on 4G by 2010 end.

But it would be prudent to weigh the viability of existing cellular technologies. Will the cost-conscious Indian consumers embrace higher-end technologies so quickly? Is it also possible for telecom players to go for more investments when they are already burdened with heavy deb?

The Telecom Revolution

Indian telecom market is one of the biggest and fastest growing in the world. With over a billion people, it comes only second to China. The country, however, is yet to reach saturation. India was a late-starter in the telecom arena. Very little was done in terms of infrastructure during the period of the 1850s to 1990. However, the true telecom revolution took place after 1990s.

The introduction of the New Economic Policy (NEP) in 1991 was a landmark in the history of the telecom industry in India. The 1990s, which is synonyms with Indian economic reforms as well, saw the government decentralizing manufacturing of equipment pertaining to telecom sector and several value added services were introduced into the market. The telecom services were also divided into basic telephony, radio paging, and cellular mobile. The TRAI was established as an independent regulatory body pertaining to the telecom sector. This allowed growth of private sector participation in the sector.

Later, the Indian government also introduced the New Telecom Policy in 1999 – hailed as the third phase of the telecom revolution. The 1999-step gave more powers to the TRAI and the concept of revenue sharing was introduced to replace the fixed license fee. It also introduced National Long Distance and International Long Distance schemes. These series of reforms have gradually allowed a host of private sector players to venture into the sector – making India one of the most competitive markets in the world.

Telecos' Paradise?

India is the second-most populated country and nearly half of the population is youth under the age of 40. This makes India one of the most promising markets for any company.

Now considering the fact that the tele-density of India is only 54.1 per cent as of April 2010, there is a huge population still to be reached by telecom companies. Total telephone subscriber base has reached 638 million as of April 2010. The second largest telecom market after China is adding averagely 8.5 million to 10 million new mobile subscribers to the network every month to also emerge as one of the fastest growing telecom markets in the world.

Despite such huge penetration, India is still to achieve its full potential. The vast rural areas are still to be penetrated. Exploration of the rural areas is now being seen as the possible next telecom revolution in India. Notably, the tele-density in the rural India is just eight percent as opposed to 50 percent in urban centers, the hinterland offers good scope for expansion.

The government is also planning to roll out high speed broadband in rural areas and the reform of the Telecommunications Service Obligations (TSO). According to some analysts, enterprise VAS, mobile commerce and mobile finance services, mobile-based entertainment, gaming, location-based services, and mobile advertising are going to be big revenue generators for telecom companies in future.

Also, given the high value offerings with 3G, the Average Revenue per User (ARPU) might go northwards. According to an industry report, 3G ARPU is projected to reach $18.30 by 2013 with revenues totaling $12.8 billion in the same year. Data is expected to contribute 29 percent to 3G ARPU from handset users.

However, with telecos taking on huge debt during 3G auctions, they have a lot to think about. "The Rs. 67,700 crores coughed up by telecom companies for 3G licenses could be a choker on their balance sheets, the cure for which is not in sight for at least a couple of years. The listed companies are likely to feel the pain of interest and amortization costs," an article in an Indian newspaper said just few days ago.

Call rates to in India have touched their lowest levels, which are hitting the profitability of the mobile companies. It now stands less than $4 per month, which is 7.5 times less than that of United Kingdom – the Average Revenue Per User in the U.K. is $30 per month. Recently, the sector saw one of the fierce battles among telecos to vie for each others' customers. Reliance Communication – held by billionaire Anil Ambani – slashed prices to Rs. 1 per second – fomenting a series of price cuts by other companies.

The government is all set to introduce the Mobile Number Portability (MNP). When introduced, this MNP scheme will allow consumers to switch operators while keeping their current mobile number. This could be another major headache in waiting for the operators as it will intensify the ongoing battle for numero-uno position. Leading telecom player, Bharti Airtel has recently reported a 28 percent drop in Average Revenue Per User (ARPU) for to Rs 220 a month compared to Rs 305 a year ago in its fourth-quarterly announcement. Looking at this, it will be increasingly difficult for the telecos, to recover the amount so quickly let alone going for 4G or any other higher technology.

The Problems Ahead of 4G Services in India

India, though one of the fastest growing countries in the world, is yet to have a comfortable per capita income. A big chunk of its people live below the poverty line. The telecom companies are relying on the large number of middle income groups to drive their revenues. Surely the affordability factor will be at the top most of the agenda for all the operators. 4G handsets will come expensive, so do the services. There will be a question mark on who will opt for 4G facilities.

Some say the post-paid subscribers will switch to the 3G segment as they are already spending a higher amount on their telephone bills. But only 5 percent of total mobile phone users in India have post-paid connections. A newspaper has suggested that operators providing 3G services, in order to post profit, must generate at least Rs 500 per user.

Others even suggest that India should have skipped 3G altogether. In fact, it should have leapfrogged from existing 2G to 4G. It could have saved telecom companies from investing hugely in building infrastructure for 3G. 4G is designed to enable high speed Internet anytime, anywhere. It will facilitate higher bandwidth, higher data rate, and will support a higher level of user-level customization. 4G will allow users to stream mobile multimedia with speeds of up to 10 times that of 3G technology.

So what would be the use of 3G once we have 4G?

Will the operators agree to another spectrum auction with such a little time gap? The federal Communications Minister A. Raja had told a newspaper that the government will start the 4G auction as soon as operators start rolling out 3G services. Notably, Germany has recently started the auction of its 4G spectrum, 10 years after auctioning 3G spectrum.

Questions are also being raised about operators getting the desired spectrum for 4G operations.

Existing versions of 4G technologies such as LTE will require at least 2x 20 MHz per operator to meet the need for high bandwidth services, which will be a tough task for any operator. Also, at present there is no clarity on the spectrum band that is best suited for 4G as the U.S. and Europe are using different frequency bands. Unlike 3G air waves, which are synergized globally in the 2.1 GHz band enabling vendors to supply handsets at less than $100, 4G has no global synergy at all. This may push up prices of devices and the network.

Considering the brouhaha over 3G auctions, it is unlikely that policymakers will expedite opening up new bands such as 700 MHz. Lack of clarity on global 4G standards is another issue. However, according to a section LTE would enable reuse of 2G and 3G spectrums, while promoting the efficient roll out and cost reduction by more than 50 percent for 3G networks.

So it is now up to the industry and the government to decide on the right time for 4G rollout considering the uniqueness of the Indian market. A-P

3DTV: A NEW JAPAN-KOREA BATTLEGROUND

BY ANURAG AGNIHOTRI

A new battleground has opened between Korean and Japanese technology companies to bring affordable 3DTV technologies and products to mainstream consumers.

Many in the entertainment, media and information technology industries see 3DTV as the next big consumer product that would hit the mainstream market in a similar way that LCD and Plasma TV products changed the course of home entertainment during the past few years. Manufacturers are turning to 3D technologies as a differentiating factor for their new products.

Problems experienced during early 3DTV development are slowly being resolved; from hardware issues to 3D content, affordable commercial 3DTVs could become mainstream consumer products in the next couple of years – and Japan and Korea are right in the middle, competing with each other to make this happen.

The Allure of 3DTV Technologies

Shipments of 3DTV units are nothing but amazing, with an expected 4.2 million units going out in 2010, which will triple and quadruple by 2011 and 2012, respectively. The successes of 3D movies has captured the minds and hearts of consumers worldwide and many could want the same kind of technology in the comfort of their own homes. However, there are several issues with 3DTV that manufacturers worldwide must resolve first before the technology is generally accepted by the viewing masses.

First is the issue on standards for resolution and 3D formats. There are differences in standards that must be worked out before an eventual mass rollout would take place. Second is the issue on the need to use 3D eyewear together with the 3DTV. It would be cost-effective for manufacturers to shoulder this in order to accommodate viewers with their purchases and the issue of the use of the eyewear interoperably among brands is another concern.

Another concern is potential side effects associated with the use of 3D glasses such as dizziness and disorientation. Eyewear-free 3DTV would take several more years before it can be released commercially. In the meantime, manufacturers have to standardize this area to resolve related issues with its use.

Despite these concerns related with the use of 3DTV, the market outlook continues to look very promising.

Historical Glimpse in the Competitive Relationship between Japan and Korea

Japan and Korea have always maintained a special relationship with each other, both favorably – and in some dark pages of history, not so favorably. It was in October 1998 however, when Japan's Prime Minister Keizo Obuchi and South Korea's President Kim Dae-jung finally signed the Joint Declaration of the New Japan-Republic of Korea Partnership for the 21st Century, putting Japan and Korea on a path to a free trade agreement – a destination that still seems some years away.

This declaration solidified the two nations' partnership and economic relationship, promoting reconciliation, friendship and cooperation between the two countries in a wide range of areas – including technology.

Coming from alternative perspectives, Japan and Korea have transformed themselves through the integration of effective economic development that sustained their growth throughout the decades – and are looking to continue to do so in the coming years as evident in their competitive relationship in technological development.

3DTV Development: A Brewing Battle Right from the Start

Japan and Korea have been at the forefront since technologies for stereoscopic 3D High Definition television systems were still in the developmental stage. NHK of Japan conducted tests to address the problems associated with stereoscopy, with the goal of achieving ease of viewing while maintaining a good sensation of reality. From here, discussions on how the future of 3DTV systems were followed through, particularly in developing autostereoscopic, holographic and integral-imaging systems for 3D cameras and wide screen display systems.

On the other side of the coin is Korea's venture into 3DTV development, particularly in later broadcasting experiments including the 2002 FIFA World Cup broadcast as part of a 3D-HDTV project. The project involved the set-up of 10 demo rooms containing a 300 inch screen. Different stereoscopic cameras and 3D processing techniques were used during these experiments, which was claimed to have been seen by more than 571,000 visitors, each wearing polarizing glasses as they watched the broadcasts.

Just recently, Korea became the first to use terrestrial or over-the-air means to broadcast high definition 3D content and will eventually offer 3D video-on-demand content for the general public.

Financing 3DTV Development: A Won versus Yen Showdown

3DTV development does not lack support from the governments of these two nations. In fact, the government of the Republic of Korea is willing to invest up to $9.3 million, or equivalent to 11.3 billion South Korean Won to support the development of 3DTV technologies. These funds will go to the development of sophisticated depth cameras and video processing equipment able to handle 4K technology. 4K means a pixel resolution of 4,096 x 2,160 which is four times sharper and clearer than the 2,048 x 1,080 2k-level images used in movie theaters.

The development of such technologies is seen by South Korea's Ministry of Knowledge Economy as vital to setting Korea's competitive edge in the global high-end television market. Consumer demand would always move towards higher definition images on their TV screens, which the 4K-level resolution would be able to provide. At the same time, the development of depth cameras will eventually pave the way for the creation of 3DTVs that would not require the use of special eyewear or 3D glasses for viewing.

Shipments of 3DTV units are nothing but amazing, with an expected 4.2 million units going out in 2010, which will triple and quadruple by 2011 and 2012, respectively.

Japan on the other hand does not want to be left behind as it is ready to put in billions of dollars in the development of holographic or Holo-TV's. NHK is the company at the forefront of this development and it has recently invested £2.8 billion or over 376 billion yen into this project. The holo-TV will make use of lasers to project a series of images that can be viewed from all angles without the need to use 3D eyewear. Japan is so confident with this project that it already made the offer to broadcast the 2022 FIFA World Cup in high-definition holographic 3D images should Japan be selected as the host for the said event. With such technologies, viewers from around the world can watch the matches as if they were there themselves: able to watch every detail of each scene and able to hear all sorts of sounds from the referee's whistle to reactions from the crowds.

The Race to Bring 3DTV Mainstream

The race is on as to who would bring commercial 3DTV technologies into the homes of consumers worldwide. South Korea appears to lead the way as the Korean Communication Commission announced that the country is now ready to do 3DTV broadcasts, with the South Korean CJ HelloVision channel leading the way by offering video-on-demand services. Another Korean Satellite TV provider, SkyLife is set to air 3D broadcasts in Korean with initial offerings on sporting events, and will also offer video-on-demand services for consumers.

Not to be left out, Japan's Sony Corporation is hot on the heels of its Korean competitors by releasing the Bravia 3DTVs, allowing viewers to watch the 2010 World Cup in full high definition 3D broadcasts. Thousands of fans enjoyed watching the games through a jumbo Sony LCD screen set up at the Saitama Stadium in Japan.

As the competition between these two nations in bringing commercial 3DTV into the mainstream intensifies in the next couple of years, the public is left with gaining the full advantage. Prices of these 3DTVs will continue to reduce to affordable commercial levels, and this would trigger larger market acceptance the world over. A-P

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EMERGING HTML5 TECHNOLOGY & ADOBE FLASH

BY RAJANI BABURAJAN

Hyper Text Markup Language (HTML) is one of the finest markup languages available for Web pages. It is a way to develop structured documents. It also helps embed images and objects to create interactive Web pages. The Latest version of HTML, HTML 5, was published as a Working Draft by the WC3 on Jan. 22, 2008. The World Wide Web Consortium is the maintainer of HTML and CSS standards.

HTML5 is presently under development as the next revision of the current HTML standard. Like the older versions, HTML5 is also a standard for developing structured Web pages on the World Wide Web. It integrates new features like video playback, drag and drop. Traditionally these features were available through third party browser plug-ins such as Adobe Flash, Microsoft Silverlight and Google Gears. Still it is an ongoing development process, although components of HTML5 are almost finished and are now implemented in certain browsers before the fully equipped version has reached its final status. It seems some of the HTML5 features have compatibility issues in certain browsers, especially Internet Explorer. It is estimted that HTML5 will attain W3C Recommendation by late 2010.

Exciting Features of HTML5

HTML5 incorporates new features and attributes that will enable typical usage on modern Web pages.

Canvas

Canvas, the drawable region in HTML code with height and width attributes, enables users to dynamically generate graphics, draw graphics, make photo compositions, and do animations without having to rely on external plug-ins. It leverages the underlying principles of HTML, JavaScript and CSS, and pushes graphics creation to a new level.

Geo-Location API

The geo-location API enables sharing your location with trusted websites. The details of your location are available for JavaScript on the page. It can integrate a global positioning system and network signals such as Wi-Fi, Bluetooth, IP address, etc. However, this is a restricted feature; the application permission should be provided by the user for this feature.

Application Caches

Application Caches allow storing Web apps and accessing them without having to connect to the Internet. Google Gears is an implementation of HTML 5 codes for Applications Cache. We can have access to them without having to connect to the Internet or even access it through external clients like Outlook or Thunderbird. This HTML5 feature works on Safari 4 and Chrome, but not in Firefox 3.5.

Hyper-Threading for Web browsers

Hyper-Threading for Web browsers helps in using separate background threads for processing without affecting the performance of a Webpage. Applications with heavy scripts can use this feature. Firefox 3.5b, Opera and Safari have shown support to this feature, whereas IE hasn't.

There are replacements for common uses of generic block and online elements. New elements are added to provide new functionality through a standardized interface, such as the multimedia elements. Some features of HTML 4.01 have been eliminated which include presentational elements such as font and center whose effects could be achieved using Cascading Style Sheets. DOM scripting like JavaScript, is given some more stress in Web behavior.

The HTML5 is designed to be backward compatible including parsing of older versions of HTML. The newer version is not at all based on SGML regardless of the similarity of its markup. It comes out with a new beginning or introductory line which has a similar look like an SGML document type declaration which helps in standards-compliant rendering in almost all Web browsers that uses 'DOCTYPE sniffing'.

HTML5 also includes another WHATWG specification "Web Forms 2.0," scripting application programming interfaces (APIs). Existing document object model, DOM, interfaces are extended and some real features are documented. There are also new APIs, such as the canvas element, Timed media playback, Offline storage database, Document editing, Drag-and-drop, Cross-document messaging, Browser history management, MIME type and protocol handler registration, and Microdata. An HTML5 browser is flexible in handling incorrect syntax. New HTML5 constructs could be safely ignored by old browsers.

HTML vs. Flash

Adobe Flash was formerly called Macromedia Flash, introduced in 1996. It is a multimedia platform that is popular for creating animation. It has many features which help Web pages become more interactive. Flash is placed as a tool for "Rich Internet Applications" as it is used for advertisements and games in interactive Web pages. The latest version of Adobe flash is the Flash CS5, released on April 12, 2010. Flash works with vector and raster graphics to provide animation of text, drawings, and still images. It can capture user input via mouse, keyboard, microphone, and camera, as well. It helps in bidirectional streaming of audio and video.

Flash works on an object-oriented language named ActionScript. It has JavaScript plug-in integration, transparency in the movies, XML support, HTML text formatting added for dynamic text, alias text support, timeline effects, Web services integration, video import wizard, Media Playback components, Data components, data binding APIs, better integration with other Adobe products such as Adobe Photoshop, basic 3D object manipulation, object-based animation. It also supports publishing of iPhone applications. Adobe Flash Player, which is available free, is used to deliver these contents. The latest version of Adobe Flash Player is version 10. Until the advent of HTML5, displaying video on a Web page required browser plugins. Flash Audio is most commonly encoded in MP3 or AAC.

With the emergence of compact and plugin-free HTML5, Flash is facing the axe from everyone from Apple to YouTube, and also from users who are tired of the security vulnerabilities and the sluggish browsers Flash brought in. Will HTML5 mark the end of Flash? Rajesh Pandita, Director, Amicus Infotech, a New Delhi–based designing company, says the changes are obvious. "There are a few hardware technologies which don't support Flash like the iPhone. HTML5 will remove these glitches and is definitely threatening Flash on Web," Pandita added.

As a designer heavily depending on Flash for multimedia designs, Pandita realizes the scope and benefits of a technology like HTML5. "It's going to be the next de facto standard of new versions of browsers. The popular Microsoft Internet Explorer in its new avatar version 9 will be embracing it fully. Google's Chrome is already a ready platform for HTML5," he added.

"With HTML5, you no longer need to use Flash plugins in your browser. HTML5-compatible browsers will smoothly run them. Additionally, HTML5 will give flexibility for Web developers to design mobile applications which may in turn lower the exorbitant mobile development cost," Pandita finds.

Apple recently announced its latest gadget, this time, the compact iPad, with the absence of Flash Player. Apple says that "Flash is a CPU hog and including support for the technology in Apple's mobile line-up would negatively impact battery life." Has Apple foreseen the end of Flash? The gadgets seem to have got in with the HTML5 vs. Flash debate. Now the battle is going to be bitter as Apple already announced that they will no longer be aiming to support Flash on their other gadgets and mobile device browsers. It will create a huge impact as Apple owns 25 percent of the mobile browser market. HTML 5 has now become one of the key words in the Web design industry.

Adobe's Chief Technology Officer Kevin Lynch criticized Apple saying, with its reluctance to include Flash on its "magical device, iPad" buyers will effectively see a crippled Internet. It looked as if he was not moved by Apple's decision, for he said they are delivering Flash Player 10.1 for "smartphones with all but one of the top manufacturers," clearly mentioning Nexus One as one such device and adding that the software also works on tablets, Netbooks, and Net-enabled TVs.

"Flash in the browser provides a competitive advantage to these devices because it will enable their customers to browse the whole Web...We are ready to enable Flash in the browser on these devices if and when Apple chooses to allow that for its users, but to date we have not had the required cooperation from Apple to make this happen," he fumed. Flash has surely spread to computers, with better than 98 percent penetration, according

to Adobe's statistics. It is there with graphical animations. More than that, its success is cemented by enabling an easy streaming video mechanism to a Web page that had been plagued with aggressive and incompatible technology from Microsoft, Apple, and Real, Lynch added.

With the emergence of HTML5, playing videos will be now handled by the browser itself. Presently, most Web pages are using Flash players for this job. Web sites like YouTube already started experimenting HTML5 support. HTML5 gets in those areas that have been held up by Flash for the present time.

Jan Ozer, an expert in video encoding technologies, finds the following differences between the two technologies.

- **In Macs:** While using safari, HTML5 was the most efficient and consumed less CPU than Flash using only 12.39 percent CPU. With Flash 10.0, CPU utilization was at 37.41 percent and with Flash 10.1, it dropped to 32.07 percent. Google Chrome, Flash and HTML5 were both equally inefficient. With Firefox, Flash was only slightly less efficient than in Safari, but better than in Chrome.
- **In Windows:** Safari wouldn't play HTML5 videos, so there was no way to test that. However, Flash 10.0 used 23.22 percent CPU but Flash 10.1 only used 7.43 percent CPU. Google Chrome was more efficient on Windows than Mac. Playback with Flash Player 10.0 was about 24 percent more efficient than HTML5, while Flash Player 10.1 was 58 percent more efficient than HTML5. On Firefox, Flash 10.1 dropped CPU utilization to 6 percent from 22 percent in Flash 10.0. In IE8, Flash 10.0 used 22.41 percent CPU and Flash 10.1 used 14.62 percent CPU

Ozer also determined that the key to better Flash performance was dependent upon whether or not it could access hardware acceleration. According to Adobe, "hardware acceleration is not supported under either Linux or Mac OS X, the latter because Mac OS X does not expose access to the required APIs." However, Adobe said the Flash Player team will continue to evaluate adding hardware acceleration to Linux and Mac OS X in future releases.

There are some other areas that HTML5 supports that Flash doesn't. Many of them are having an edge over Flash. Flash should have to work hard to get in to these features to compete with the newly emerging HTML5. But gaming is a great example of an area that Flash excels over HTML5. Most of the social networking sites are implemented with Flash games, which many users are interested in. There are also other interesting social media applications based on Flash. All of these are key to the running of social networking sites.

The Web - being a vast and crucial platform for individuals, society and business – cannot be under the control of a single vendor, according to experts. There's a huge body on the Web that is using Flash technology; it cannot be wiped out altogether. However, there is a chance that the Web could pave the way for emerging technologies like HTML5. We will find out in the next couple of years, according to experts. A-P

ELITECORE TECHNOLOGIES

Continued from Page 15

Q&A

call control and speech recognition, with non-real-time communication services such as unified messaging (integrated voicemail, e-mail, SMS and fax). This allows an individual to send a message on one medium and receive on another. It should be possible to easily transfer any activity or message to another medium. For example, one can receive a voicemail message and choose to access it through e-mail or a cell phone. If the sender is online, according to the presence information and is currently accepts calls, the response can be sent immediately through text chat or video call. Otherwise, it may be sent as a non real-time message that can be accessed through a variety of media.

In this segment we are working on a IP Centrex solution, which refers to a number of IP telephony solutions where Centrex service is offered to a customer who transmits its voice calls to the network as packetized streams across a broadband access facility. IP Centrex builds on the traditional benefits of Centrex by combining them with the benefits of IP telephony. One of these IP telephony benefits is increased utilization of access capacity. In IP Centrex, a single broadband access facility is used to carry the packetized voice streams for many simultaneous calls. When calls are not active, more bandwidth is available for high speed data sessions over the LAN, like Internet access. This is a much more efficient use of capacity than traditional Centrex.

What is the focus of your R&D initiatives?

We are very much focused on the telecom and OSS/BSS segment and our R&D initiatives are directed on the same lines. In the coming future, we see a huge opportunity in the data segment and VAS, so we will try to align our R&D activities in these directions so as to keep our product in line with the market requirement.

What are your focus areas in APAC?

Indonesia and Philippines are the key focus areas for us in the APAC region as these markets have huge potential. We already have worked very closely with the Tier 1 operators in these regions and are expecting significant business from this region in the coming future. A-P

Despite the Tensions:
Baengnyeong Island is Calm and Beautiful

BY BRYAN KAY

When the TV camera crews and ravenous press scrums packed up their bags and moved on, the inevitable void that followed was palpable. Several months on and into the summer, it was starting to feel like an unavoidable scar plastered all over the otherwise pleasant face of Baengnyeong Island.

Tiny and on the frontline of the North-South Korea conflict, the outcrop was thrust to center stage when the South Korean navy corvette, the Cheonan, sunk on March 26.

Before, the thoroughly isolated island off the western coast of South Korea was the bearer of a brisk tourist trade. As the warship went down amid mysterious circumstances in the often troubled waters of the West Sea, it not only suddenly reentered the common parlance of Koreans for less peaceful reasons, but it also made its way into the pantheon of journalists and even ordinary members of the public around the world.

Now, though, tourists are turning away – apparently in big numbers. Ostensibly, the theory is that there is a malignant fear associated with the proximity to the troubles. Yet, this island is a diamond in the rough of a tense stand-off, a misplaced gem of paradoxical tranquility and natural beauty.

Surrounded on two sides by arch political enemy North Korea – just 17 kilometers away from its northern shore – Baengnyeong Island is probably the most exposed place in the South. From its other two coastlines, it can call upon only the mercy of the West Sea – with the city responsible for its jurisdiction, Incheon, 228 kilometers away.

Its troubles started in earnest when the Cheonan exploded, split in two and sank just a few kilometers off its shores and close to the hotly dispute maritime border between the two countries.

The island and its nearly 5,000 civilian residents were suddenly besieged by the world's media. Its conspicuously sleepy villages were thronging with reporters hoping to catch a glimpse of the rescue and recovery work visible from its southern coastline.

As matters quickly turned to who was responsible for the blast that ultimately claimed the lives of 46 sailors, fingers began pointing at the country just off its northern front.

Suddenly, Baengnyeong's apparent vulnerability was brought into sharp focus. A casual glance at a map of the Korean peninsula will show that the island lies tightly inside the North Korean geographical sphere, the U.N. unilaterally drawn maritime boundary between North and South Korea wrapping around its coast to the north, making it part of the territory controlled by Seoul.

But living side-by-side with the enemy is nothing new for the people of Baengnyeong: That's been their lot since the Korean War ended nearly 57 years ago.

But living side-by-side with the enemy is nothing new for the people of Baengnyeong: That's been their lot since the Korean War ended nearly 57 years ago.

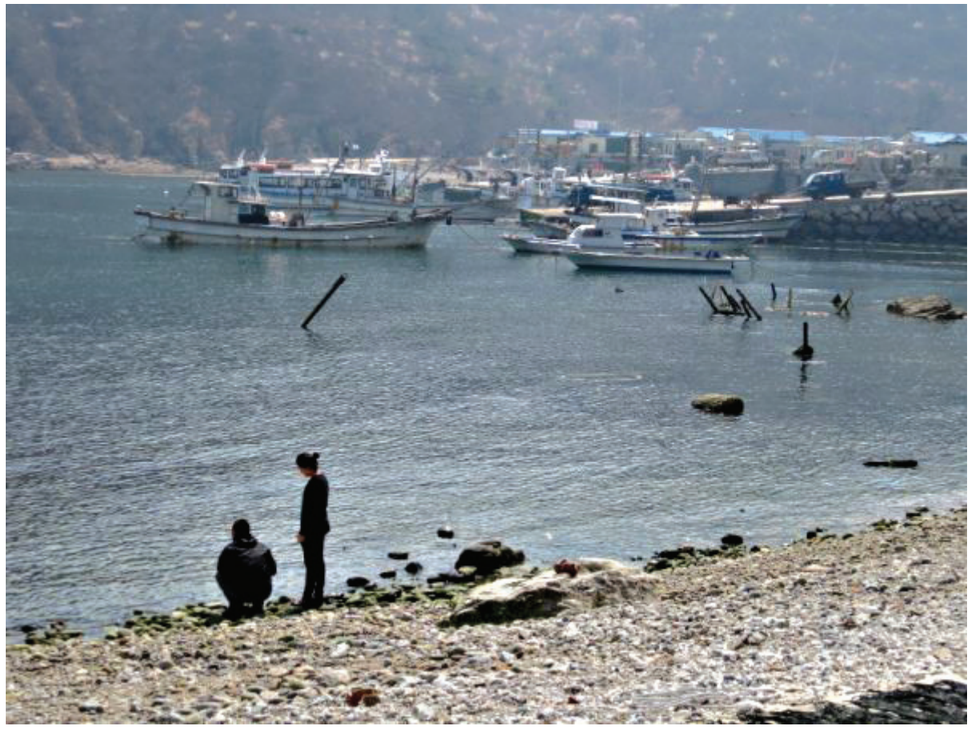
The realities of their existence are visible throughout its 51 square kms: beautiful beaches lined with tall barbed wire clad walls; scores of military bases covering the army, navy and air force; a key air radar station for detecting enemy fighter jets; elite assault rifle-totting commandos patrolling its rice paddy-lined country roads. Its population is more than doubled by a 5,000-strong permanent military force.

Other aspects are less visible. According to local military sources, forested mountainous areas and off-the-beaten-path locations are laced with land mines – one senior soldier recalls a junior enlisted soldier losing a foot after veering off established trails. Others strongly suspect a presence of spies in their midst. As if to illustrate its proximity to the North, a North Korean defector made it over the maritime boundary and was picked up by the South Korean military on Baengnyeong in early June.

Islanders take the situation in stride. While South Koreans in general – often flippant toward the perceived threat posed by the North – have been spooked by the sinking of the Cheonan and the alleged involvement of Pyongyang, Baengnyeong residents continue to exhibit a willingness to brush off the threat from their erstwhile countrymen and blood brothers.

"I don't care about them," says Lee Chae-gun, whose family owns a restaurant and motel in Jinchon, the island's main town. He says tourists shouldn't be put off by the belligerence: come and enjoy the copious wildlife – spotted seals among them – and an array of natural wonders.

Indeed, the list of attractions for an island so small is long. Gourmands can tuck into island specialties such as blue crab, sea cucumber, Baengnyeong wild sage and black goat.



The island and its nearly 5,000 civilian residents were suddenly besieged by the world's media. Its conspicuously sleepy villages were thronging with reporters hoping to catch a glimpse of the rescue and recovery work visible from its southern coastline.

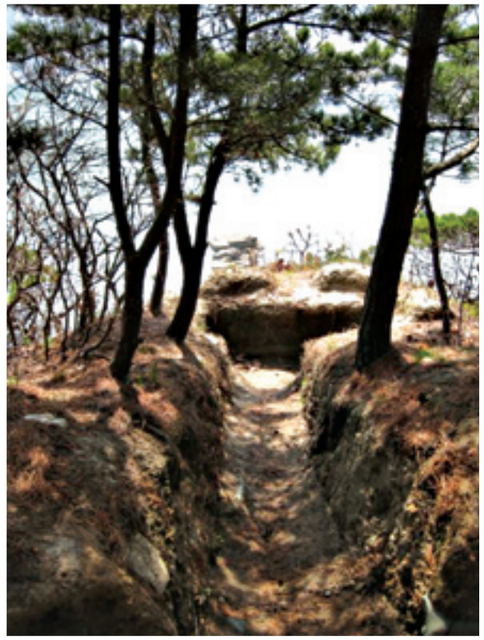
The unification wish tower, near Dumujin, a port town boasting a pebble beach and located inside a wide mountainous bay that looks out to North Korea, is a prized asset. It features two stone structures built in a cone formation, representing the two halves of the divided peninsula. Natives gather here to beseech their union once again.

Nonetheless, the uncertainty on the mainland appears to be having a savage ripple effect this time around. The island's tourist trade continued to suffer the consequences well into the summer months; this for a plank of its economy otherwise reliant on farming and fishing, locals say. Away from the barbed wire and mooted land mines, there are also some of South Korea's most pristine beaches, dynamic hiking trails and a reputation for a bio diverse natural landscape and wildlife. Sagot Beach, National Monument No. 391, is famous for its diatomite sand, reportedly one of only two places in the world where diatomite sand exists along the shoreline.

Arguably the most stunning wonders are the Dumujin rocks. Tall, jagged splinters of coastline cut off from the mainland, they are the work of mother nature and time, their arrangement a testament to the power of the sea, the wind and the rain to create works of natural art. The name Dumujin emerged because the rocks resemble heads of generals gathered at a meeting, a military reference not out of keeping with the island's reality today.

For those based on the island with the military, it is business as usual. Master Sergeant Jung Mu-woon, of the South Korean marines, predicted tourism, along with farming and fishing, would continue to buttress the local economy. "Tourists will come for the nature and walking trails," he said.

Part of the island's attraction is a rare chance to gawk at the North from an unnerving vantage point, something the local tourist board promotes. "Baengnyeong Island is the most northwesterly island of South Korea," its tourist literature states, "and is located closer to North Korea than South Korea. From the island, visitors can see North Korea very clearly, perhaps feeling saddened by the division of the Korean peninsula."



Local government worker Han Chae-yeon, who was shipped in to work at the island community center, enjoys the natural environment aspect of living here. "It is quiet here," she says. "There is good walking and nature and local wildlife."

Still claimed by North Korea as its territory, the links between Baengnyeong and the North run deep. According to Jung, the marine, North Korean fishermen regularly drift across the disputed maritime boundary, unaware of where the invisible line actually rests. "Until about 10 years ago, I heard North Koreans used to come across to visit their cousins on the island," he said. "Back then, the island was not so well controlled."

These days, the beaches are off-limits after dark. "We must close the beaches because we have to watch for the enemy," said Jung. There is a realistic possibility, locals warn, that anyone drifting onto them at night could be shot out of fear that they are part of an enemy incursion.

If a certain tranquility persists on the island despite the military presence, getting to Baengnyeong is a precarious exercise. The four-hour hydrofoil ride cuts a deliberate path around the maritime border at speed, with North Korean weaponry within range not far away from its course. It is the only way to get there.

The initial scene that awaits civilian visitors is one of unmistakable militarization. Those young conscripts both starting and finishing their mandatory military service can be seen arriving and departing in numbers. Like the island itself, the looks on their faces, solemn yet serene, belie the realities of the existence here. Elsewhere, armed patrols are, of course, not an uncommon sight.

While some South Koreans remain unaware of the extent to which the island is militarized, at least one recent newcomer is convinced of his safety on Baengnyeong. Seoul native Park Tae-won, 38, an English teacher at the local middle school, said: "Since the war ended (57 years ago), we have had no serious fighting with (North Korea), so I have no worries."

The message here seems to be: for a pleasant seaside holiday, sprinkled with equal measures of nature and North Korea, come to Baengnyeong Island. Just don't forget a hard hat. A-P

Importance of Biomedical Engineering in Asia

BY SP SINGH

The 21st century is rightfully called the Biological Century. More technological breakthroughs in the medical and industrial spheres are expected with heavily funded research programs underway in most countries of the world. Developments in the fields of biology and medicine, such as human genome sequencing and research to create cell and organ functions, have led to a critical change in many industrial segments and strengthened the medical engineering profession. Although the traditional areas of engineering and other technology innovations will continue, more new opportunities will arise in biomedical engineering and in the fields of biology, medicine, health and delivery of health care.

Biomedical Engineering

The biomedical engineer uses quantitative approaches to integrate various components to gain knowledge regarding living systems. They can then create innovative solutions and make commercial products. Hence the biomedical engineer leverages research in biology and medical fields to improve quality of life and improve health care delivery.

According to reliable sources, several new technologies are being developed nowadays, which will be commercialized within a few years. These depend on research in new areas such as functional genomics, imaging at the molecular and cellular levels, new imaging at the organ level, computational applications in bioinformatics and medical informatics, functional biomaterials, bionanotechnology, new instruments and devices for clinical medicine, and rehabilitation and assistive technologies. There are clear indications that the requirement for biomedical engineers is poised for huge growth in the next 10 years.

Medical technology companies rely on fundamental biological discoveries. The health care sector opens huge opportunities for medical technology innovations in Asia, as tremendous growth in medical and health awareness can be witnessed with an increase in income levels and education. Also there is an urgent need for biomedical engineering studies, which is an interdisciplinary field comprising of engineering, biology and medicine.

The applications in bio-medical engineering are many. There can be new ways of doing blood tests, screening of infectious diseases and in genetics. Information technology applications in healthcare provide knowledge about how materials behave inside the body. This is changing the approach towards implantable devices.

Biomedical Engineering applies modern methodologies along with theoretical and computational methods. Research programs in biomedical engineering covers related topics like molecule and cell research, human anatomy, immunology, physiology and neuroscience. This gives biomedical engineers in-depth knowledge of life sciences.

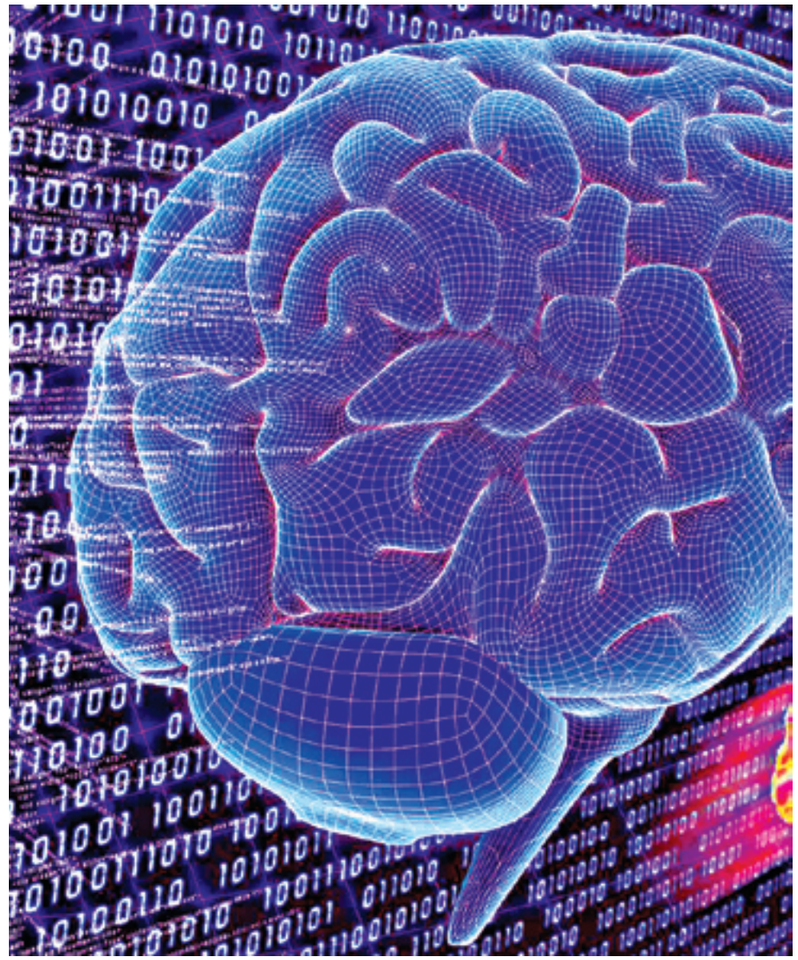
Specific areas of specialization in biomedical engineering include artificial organs, automated patient monitoring, blood chemistry sensors, advanced therapeutic and surgical devices, applications of systems and artificial intelligence and clinical decision making for computer-based systems for diagnosing diseases. Biomedical techniques are also used in the design of clinical labs for catheterization, blood analysis and medical imaging systems; biomaterials design as in implantable artificial materials; biomechanics for injury and wound healing and also in sports medicine for external support devices.

Who is a Biomedical Engineer?

According to specialists in the field, a biomedical engineer understands medical problems, the chemistry, the biochemistry involved in doing the sensing besides understanding the engineering that goes into developing the devices. Biomedical engineers will bring together all of the specialties in the field.

Biomedical engineers require quantitative skills and should be able to analyze a problem in detail. They need to have a solid foundation in engineering even if students are working in a medical environment. Besides, biomedical engineers should have math skills and teamwork skills also. They should know about biomaterials, rehab engineering, computer-assisted surgery and medical imaging that leverage engineering, science and medical applications.

Biomedical engineers analyze and solve problems in biology and medicine for enhancing health care. They work with physicians, nurses, therapists and technicians besides using their technical knowledge to design instruments, devices and software for developing new procedures and products and do research to solve clinical problems.



Biomedical Education

In many countries of Asia, universities have incorporated Biomedical Engineering and Bioengineering as major educational studies. Singapore gives great importance to the new field of biomedical engineering. Singapore Manufacturing Output has risen significantly, especially in the biomedical sector in recent years. Nanyang University of Singapore and National University of Singapore offer post-graduate studies in biomedical engineering, besides other courses.

Stanford University in California in partnership with the Indian government established a new training program, The Stanford-India Biodesign. This initiative is expected to create biomedical technology innovators in India.

Harry Greenberg, senior associate dean for research at Stanford University School of Medicine said, "India is on the move. India represents a huge part of the population of the globe that is likely to benefit from medical innovation and technology over the next 20 years."

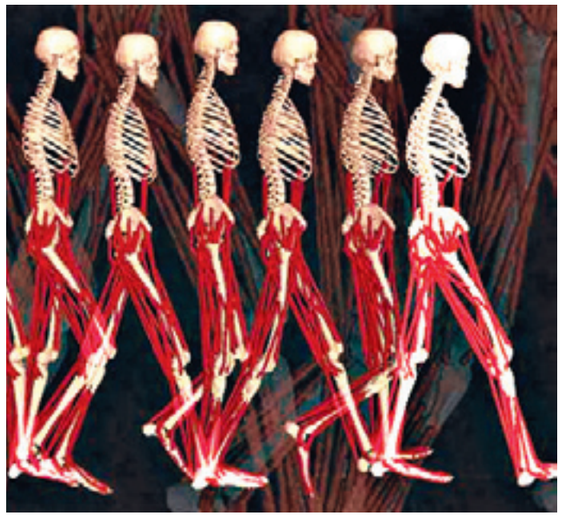
The Stanford program will teach innovation in Indian engineering, to business and medical students through a two-year fellowship project. The training will start at Stanford and will continue in health clinics and hospitals in India where students can locate unserved medical needs, which will meet the needs of the Indian health-care environment. The fellows at the end of the program will help develop and test the solutions further.

"The purpose is to eventually help meet the medical needs of the people at the bottom of the economic pyramid in India," said Balram Bhargava, the India-based executive director of Stanford-India Biodesign and a professor of cardiology at the All India Institute of Medical Sciences in New Delhi.

In India, the use of artificial legs or lower leg prosthesis commonly called "Jaipur Limb" is a well known remedy for loss of limbs especially for the underserved population. At Aravind Eye Institute custom-designed intra-ocular lenses are implanted into thousands of patients free of cost.

The Biomedical Engineering Society of India is a not-for-profit professional body which has its headquarters located in the Manipal Institute of Technology, Karnataka. The society was formed with the intention to encourage, promote and advance interdisciplinary cooperation amongst scientists, engineers and medical doctors for teaching and doing research in the filed of biomedical engineering. The society will also oversee improvements of standards, terminology, equipment, methods and safety practices.

In China, biomedical engineering has grown remarkably in the past ten years. Funding for research and de-



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velopment has been highly encouraging in the biomedical field as an aging population and change in lifestyles have resulted in new diseases. Malnutrition and traditional infectious diseases have been replaced by chronic and non-communicable diseases. This has made biomedicine important. After focusing on pharmaceuticals field for so long China now focuses on biotechnology. ChinaBio deals with investment opportunities in the biotech industry.

Biofield in China has made a new device, considered an alternative for biopsies and mammograms in the treatment of breast cancer. Biofield's device combines a measurement machine with single-use sensors which can measure electrical changes associated with the development of epithelial cancers in breast cancer, according to reliable sources.

Chindex International announced two medical devices: the daVinci S Surgical System and the AlexLaser. The former is a robotic surgical assistance tool that uses minimal invasive techniques. The latter is used for removing tattoos and pigmentation. The Institute of Biomedical Engineering was developed in 1995 to offer many programs in the under graduate, post graduate and doctoral levels.

The institute maintains good relations with many hospitals including the First People's Hospital of Hangzhou, Zhejiang Hospital, the 117th Hospital of Army etc. to offer research support in the biomedical discipline.

The 4th International Conference on Bioinformatics and Biomedical Engineering (iCBBE 2010) was held from June 18th to 20th in Chengdu, China. The top researchers from Asia Pacific, North America, Europe and other regions exchanged research findings and discussed all issues of bioinformatics and biomedical engineering.

Hong-Kong based Tianjin Biomedical Engineering Company is engaged in making compound fertilizer products besides healthcare products. Besides making special foods for diabetic patients in the form of noodles, flour and biscuits the company also makes biological, combined and mixed fertilizer, which is made after thorough plant research for augmenting crop production.

Apart from Hong-Kong, even Malaysia has started investing in biomedical research and education to meet the need for experienced and qualified biomedical engineers. University of Malaya offers an engineering program that encompasses biology and medicine, and adds a combination of mechanical and electrical engineering and applied mechanics and electronics.

Students will learn to design, monitor, install, maintain and service medical and laboratory equipment; carry out analysis and research to give advice and provide consulting services pertaining to engineering-related medical problems and work hand-in-hand with medical experts on specific patient treatments. Other institutes which offer similar programs in Malaysia are Universiti Teknologi Malaysia and Universiti Tun Hussien On.

Need for Biomedical Engineers

With growing healthcare awareness, increase in population in Asian countries and greater affordability for optimized healthcare, the need for qualified biomedical professionals in on the rise.

They are employed in universities, industry, hospitals, research centers for education and medical institutions, teaching and government regulatory agencies. Biomedical engineers are required in government positions for product testing and safety, besides establishing safety standards for devices. In hospitals, biomedical engineers provide advice and guidance in the selection of medical equipment and they also supervise the performance of the equipments on a continuous basis.

Brain Computer Interface or BCI system helps severely disabled people to communicate or control devices. Bluetooth wireless technology is incorporated into existing systems to enable wireless serial communication between the data acquisition system and the computer. The computer can send control commands to two remote Bluetooth devices like prosthetic hand and LEDs. This helps control an artificial hand to do some simple actions. This is an example of how biomedical engineering is aiding medical doctors to optimize health care. A-P

Q&A | PRINCE JACOB

The Chakra Group is planning to launch the project TTDC Korea in association with Tamil Nadu Tourism Development Corporation (TTDC). Asia Pacific Business and Technology Report caught up with Mr. Prince Jacob, Chairman of the Chakra Group, to find out more about the upcoming project. Here are excerpts from the interview.

BY STAFF REPORTER

Please let us know your future plans to develop Indian Tourism Asia - Pacific . Are you planning to open a new office in Korea?

India is a well-known tourist location attracting as over 6 million tourists every year. We have lived in the region for over a decade and we understand the importance of tourism for people from this region, and fully understand the needs of the tourists from this region. We have worked with TTDC closely in promoting Enchanting Tamil Nadu with new tailor-made packages. We have opened our office in Seoul, South Korea and will concentrate on promoting various tour packages to Tamil Nadu from the region.

India as whole is beautiful country. But you have decided to concentrate on Tamil Nadu. Is there any special reason for that?

India as a whole is a beautiful country but we have decided to concentrate and promote Tamil Nadu since we come from that state and we understand the fullness of the ancient relics of Tamil Nadu. It is a land where the amalgam of traditions and culture makes a unique place of its own in the cultural face of India. The state proliferates in monuments and temples that are ancient and each has its own story of religious, artistic and cultural achievement and specialty waiting to be heard. Mostly tourists from this region have focused on touring to the Northern India as Taj Mahal and the Red fort are well-known to the world, but there are many places which will be of interest to tourists in Tamil Nadu. Tamil Nadu has a long coastline that stretches nearly 1000 km. The Coromandel Coast, along the Bay of Bengal and the hill stations remain major tourist attractions in Tamil Nadu because of the salubrious climate and serene ambiance. Tamil cuisine is also a major draw for the visitors to the state. Tamil Nadu boasts a fantastic tradition of cuisine that has captured many hearts across the world. The specialties of Chettinad are real gastronomic delights.

As a representative of Tamil Nadu tourism in Korea what will be your main priorities to strengthen tourism to the area?

We are planning to a launch the project TTDC Korea which will throw a lot of light on the various tourism packages offered to Korean tourists. This will continue with number of road shows showcasing the highlights of Tamil Nadu. This project is not like other private tour operators. We are launching this tourism office along with the Tamil Nadu Tourism Development Corporation (TTDC), a government organization. We envisage to have joint promotional activities with the KTO to create awareness of the enchanting Tamil Nadu.

Is the Tamil Nadu tourism department giving you some special package to promote Tamil Nadu abroad?

Yes, we have carefully-planned packages that would ideally suit tourists like the Hop-on Hop-off tour package of Chennai city, Honeymoon packages at the real cool hill stations, education tour packages and a medical tourism package.

As you know there are already many tourist agencies concentrating on India. What will be the main service and incentive for the tourists to use the services of your office?

There are a number of tour operators who organize tours to India, but there are not many who do this to Tamil Nadu. Mainly we would concentrate on tailor-made packages and corporate packages. We will have our own team of trained tour guides in India to give the best flawless service to our valuable tourists. Moreover our niche in this operation would be that we would get each group together before their departure and have a short seminar on the various aspects of the tour along with a taste of Indian food in order to possibly avoid culture shock.

Is there any thing else you will be like to say to your guest tourists to come to Tamil Nadu?

Our operations would concentrate on the guests to give them full satisfaction and the ultimate pleasure with very cost-effective travel since we have launched this operation along with TTDC, a government organization. A-P

Growth of the Automobile Industry in Thailand

BY SHAMILA JANAKIRAMAN

The automotive industry in Thailand has shown robust growth in spite of the political turmoil in the country. It has been successful in retaining its position as the "Detroit of Asia." Ford Motors insists on opening a plant in Thailand in spite of the unrest, a clear indication of continued support from the auto industry.

Thai car sales increased 53.4 percent from 2009, further proving true that it is indeed Southeast Asia's biggest car market. The country has a large, skilled automotive workforce besides having associated industries for automotive parts and components.

Thai Automotive Industry Association announced a leap in domestic demand. Also the automotive and auto parts industry was responsible for a huge increase in export revenue less than only that of computer and electronic parts. This contributed considerably towards the nation's GDP.

The remarkable growth in the Thai automotive industry is due in part to the reduction in excise duties for small passenger cars. This reduced the price of cars and the added advantage of credit availability was instrumental in increasing demand. A rise in petroleum prices did little to dampen the automotive market growth in Thailand.

According to the Federation of Thai Industries about 38 percent of vehicles manufactured in Thailand are for export, which is witnessing upward growth. The demand for Thai-made one-ton pickup trucks grew in demand both in the domestic as well as export markets.

The reasons for Thailand's growth in the automotive industry are many. First and foremost being the benefits it derived from agreements like the free trade agreements signed with Australia, New Zealand, China and India and the market opening opportunities in Southeast Asia created by the Asia Free Trade Agreement. The Thai-Australia Automotive trade resulted in an increase in trade between the two nations. The ASEAN countries are major export market destinations after Europe, Australia and middle-east.

Foreign Auto Majors in Thailand

Nissan Motor Co. in a recent announcement reiterated its confidence in the stability of the automotive industry in Thailand. The output from Nissan is set to double to 200,000 units in 2010. Nissan's Thai plant makes five models of automobiles including cars and pickup trucks.

"Not one project is suspended or delayed. Everything is on track," said Chief Executive Carlos Ghosn of Nissan. The political unrest had affected tourism and consumption in Thailand, which is Southeast Asia's second-largest economy. The car exports scenario however remained unaffected.

Nissan sources said that the launch of the new model "March" will help increase car sales and help the company touch the magic figure of 200,000 units. Nissan strives to export vehicles to 100 countries from Thailand. The country being the third strategic export base after Japan and Mexico.

Ford Motor faced problems in Europe and North America few years back driving it to expand its operations in Asia. Finding the market in Thailand lucrative, Ford shifted its pickup truck production to the country and transferred its car production unit to Philippines. Thailand is expected to become Ford's central base for Asia's production, making it the second largest pickup market world wide and also ASEAN's largest automotive market and assembler.

In Thailand, both the passenger car market and pickup truck market are led by Isuzu and Toyota, together holding around 65 percent of the vehicle market. Other contenders in the field are Mitsubishi, Nissan, Chevrolet, Ford and Mazda. Diesel powered passenger cars are also in vogue with Toyota in the leading position followed by Honda for market share. Honda has increased its production capacity in Thailand to cater to the export demands of its international market. Toyota, Honda and Ford have established research and development centers in Thailand.

Not to be left behind in leveraging exploding growth in the Thai automotive industry, General Motors has invested in setting up new ancillary units and augmenting the production capacity of its plant in Rayong. Chevrolet from GM is in great demand in the domestic market and outside.

Thai operations have helped many auto manufacturers to serve both domestic and regional demand. Indian Auto giant Tata Motors has its eyes firmly set on Thailand. Being a regional auto major, Tata Motors unveiled its Tata Xenon 1-ton pickup truck in March 2008 at the Bangkok International Motor Show. The Tata dealer network is also well in place for distributing the vehicles.

Ratan N. Tata, Chairman of Tata Motors, said, "I am pleased that Tata Motors (Thailand) is launching the Xenon pickup in Thailand. The Xenon pickup has been developed and built in Thailand, specifically keeping the Thai customers in mind. We are hopeful that Thailand and ASEAN region will become key markets for Tata Motors in the near future."

Tata Motors zeroed in on Thailand after studying the ASEAN region in detail. It invested 1.3 billion baht to produce the Xenon pickup truck. This only proves that Thailand is the preferred destination for pickup truck manufacture as it is home to a strong supplier base and a provider of modern technology for making high-quality products.

The Xenon is assembled at the Thonburi Automotive Assembly Plant as it is a well known destination for experienced labor and craftsmanship and has a reputation for quality products.

Supporting Industry - Auto Parts and Components

Besides the craftsmanship and supplier base, the nation's supporting network is quite extensive with respect to auto parts. This gives Thailand a competitive advantage as in most other countries there is a deficit of infrastructure, which requires parts to be imported resulting in an increase in vehicle costs. The Thai Automotive Industry Association reveals that the auto parts export of the nation will grow steadily. Thailand exports cars to markets in Belgium, Japan and Australia. Destinations for car parts are Japan, Malaysia and South Africa.

The automotive industry's success anywhere depends on supporting industries like that of auto parts and component manufacturers. Thailand has an extensive network of auto parts manufacturers, which serves to strengthen the industry.

One such auto business is Summit Industries, which caters to the needs of the auto industry in the country. Summit Industries is a large contributor with over 30 subsidiaries and nearly 13,000 employees with auto-part factories in Malaysia and India. The supply base in Thailand is strengthened by these supporting industries, making the country a major vehicle supplier in Southeast Asia. The country boasts more than 700 OEM auto-parts suppliers and 1,000 suppliers in other support industries.

The automobile parts manufacturing sector in Thailand is considered the best in South East Asia, according to Japan Automobile Manufacturers Association. The local part manufacturers supply approximately 80 percent of all parts used for assembly of pick-up trucks, approximately 55 percent percent for passenger cars and nearly 100 percent for motorcycles. The locally produced assembly parts include engines, suspension control and spring, axles, hubs, propellers shafts, brakes, clutches, steering systems, body parts, electronic parts, air conditioning, tires, wheels, internal and external trim components and glass.

Besides Japanese assemblers, U.S. companies Ford and GM have entered the fray by bringing their own suppliers into the Thai auto industry. European assemblers have fewer local part suppliers because of their limited assembling volume. The automotive industry is going through a continuous process of upgrading with ISO 9000 certification, which is the standard among major producers.

The Board of Investment or BOI of Thailand and the Thailand Automotive Institute strive to attract investments to produce even the last key components that are presently not produced in Thailand. Incentives are given to support major target industries. The support activities include R&D, design activities, and human resources development. If all components and parts are available in Thailand itself, then multinational auto assemblers can reduce production and logistics costs to make Thailand a major Asian production hub.

Being the 'Detroit of Asia'

To help Thailand retain the "Detroit of Asia" title, Thailand Automotive Institute or TAI has come out with five key projects. On complete implementation the automotive and auto parts industry could be worth 1.3 trillion baht ($32.5 billion) by 2010, according to TAI President Vallop Tiasiri. The government is looking beyond pickup truck production to include passenger cars by implementing the "Best Little Car" project.

The Thai government has set up industrial estates which offer tax incentives, lower import duties, one-stop visa and work permit advantages. Also multinational investors are not required to have a local partner which is an advantageous proposition compared to most other Southeast Asian countries. This has enabled BMW to fully-own an assembly and manufacturing plant in Amata City in Rayong.

Thai Industrial estates strive to improve lives of people and also improve the position of the country as an

Continued on Page 47

The Yellow Metal Rises Skyward

BY JAI CS

Ah, gold! How the yellow stuff glitters! For centuries, men have sailed across stormy seas and trekked through steaming jungles to hack the ore from the rock. When people heard the cry "there's gold in them hills!" echo through the California mountains in 1849, thousands streamed in to cash in on the gold rush. The lucky ones could smelt and shape it into jewelry or bullion currency.

Presently, gold is soaring to a peak price as demand surges. Investors increasingly seek to trade on this metal rather than on volatile stocks. The latter lose their luster, and with the global economic shake up of 2008, investment returns from other instruments is uncertain. Equity markets are also slowly losing their charm alongside commodities in the slowdown. At this juncture, investors are searching for safe, value-adding investment instruments within their investment portfolio. More are drawn to the magnetic allure of gold.

Experts say that its gradual, steady increase in price directly derives from the investors' lack of confidence in the world's major currencies. This has triggered a move among them to put their money in a safe haven asset with "no sense of panic" – gold. "A solid gold investment sets you free from the risk of credit default or banking failures," reassures a financial consultant.

No doubt, as market demand escalates, it immediately drives up the price. Reports indicate that gold has climbed this year, outperforming stocks, bonds and other commodities.

Is Gold Smart Money?

The answer is that investing in this precious metal is not limited because it can be sold anytime and anywhere. The trading function is smooth, it is easy to spend and constitutes an insurance against any extreme market shifts. Romantic fascination with the alluring shine also draws buyers.

Traditionally, Asian families kept much of their assets in gold as protection and investors gripped it as a shield against inflation. Experts now claim that gold is a strong hedge against against inflation, deflation, stock market weakness and other currency problems. In short, to hedge against financial uncertainties, this metal always serves well.

Gold mining companies worldwide now struggle to meet the climbing demand for gold jewelry and investment buys – prices are rising. Although recognized as a pioneer in gold mining, South Africa's annual output has halved since 1998, but new operations in China and Russia are growing.

Reports also indicate that the Chinese Government is encouraging its citizens to participate in a Gold Investment campaign. Beijing will expand the range of gold products available. The entire world is realizing that gold is always "real money."

Why is Gold's Price Increasing?

It has gone skyward amidst global uncertainty and turmoil in the world market. Its global market price has risen by 14 percent this year, outperforming stocks, bonds and other commodities. The cocktail of major reasons generating anxiety about the non-gold markets spans inflation and national currency fluctuations and the European debt crisis that sees Greece and others sagging under a boulder of sovereign debt on their shoulders. To be precise, now the demand for gold is high as investors fear losing out in the battle for sure profits.

Demand is rising. With Europe on the brink, plans afoot to hike taxes and a shake up in the U.S. credit system, having gold is the way out.

Additionally, ETFs that hold gold have steeply grown in recent years. These ETFs trade like stocks and track the price of physical gold. They are definitely boosting gold's appeal and paving the way for investors to own vast amounts.

The current gold supply and demand also cardinally determines its price. For several years, experts observed that its price is significantly affected when major economic factors like inflation; changes in interest and exchange rates; a new central banks reserve policy and political and economic tensions strike. Traditionally, during inflation and currency devaluation, gold purchases grow and the demand and price are lock step.

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Also, private sector investors fear inflation, currency depreciation and destabilizing economic challenges.

Possible Future Scenarios in the Asian Gold Market

Gold consumption regionally – both jewelry and investments – is expected to rise for years. Also, analysts strongly feel that the People's Bank of China will continue its own buying program. Gold will generate lofty returns well into the future. Industry analysts believe that this rising long-term saving and investment demand for gold from China, India and others will be unabated for the next several years.

Also, this growth can encourage the development of new gold investment products and channels. Bank and retail shop systems for gold investments are growing. Alongside higher personal incomes and inflation anxieties, all this will influence the supply/demand trend and the metal's price.

Factor in that for decades, global gold-mine production has turned downward. The current rise in gold's price could trigger much more exploration and the development of new gold mining companies.

Let Us Know this Metal More

Compared to other minerals, gold is used the most based on its diverse, unique properties. Gold conducts electricity, is easily worked and shaped as wire or thin sheets and can be melted and cast into highly detailed shapes. It is popular for its unparalleled combination of chemical and physical properties. It is the only yellow metal and bears its name from the Old English word for yellow, or "geolu." Among metals, only gold will never rust or tarnish – it is forever.

Throughout history, various cultures have used gold to symbolize power, beauty, purity, accomplishment and especially a romantic sense of attraction or love. Today this metal has several applications in diverse industries.

Gold's chemical symbol, Au, comes from the Latin word for gold, "aurum." Pure gold is very soft and sustains the stresses of shaping. Alloying gold with other metals such as copper, silver and platinum increases its durability. The pure stuff is identified as 24 karat gold.

Other than for jewelry, this metal is used in the manufacture of electronics and as a drug to treat a few medical conditions. It appears in circuitry as a dependable conductor and connector and is a lubricant between mechanical parts. Gold, in both metallic and chemical form, acts as a therapeutic agent. The metal has been used for more than a hundred years to treat arthritis. Various research laboratories are also investigating whether it fights HIV/AIDS. Gold is also the metal of choice for religious objects. Medals and trophies, e.g. the Academy Award/Oscar and the Grammy Awards are all fashioned from gold.

Owning Gold Stocks Is Owning the Metal Itself

Global gold dealers report heightened demand for physical gold products like coins and bars.

Investors continue to seek refuge under a gold roof. Once they decide on gold, the immediate question is "how will this be the actual investment?"' A few might choose gold coins. The safest are pure in content and always command a good value. The only worry is tracking the dealer markup, shipping, and possible sales tax, plus coin storage and insurance. To avoid this, one can buy gold shares. These are the shares of gold mining companies. There is no worry about storage charges and they are protected just like any securities in a brokerage account.

Many people today opt for gold mining stocks for the leverage that they impart to gold's price. Currently, there are over a thousand publicly traded gold stocks at various prices. Gold is considered a commodity. But it is still money among sane people. This metal is doubtlessly the ultimate storage of wealth – beyond inflation's destructive power. Today's market has forced many to deem gold an investment vehicle. Interestingly, if an investor seeks leverage over the rising gold price, the best way is gold equities. The rising gold price eventually improves the mining companies' profits – sure to mean a higher share price for investors. Therefore, gold mining shares are traditionally considered very stable because gold performs well during both inflation and deflation and its stocks confer an investment edge.

However, gold is untraceable if it ever gets stolen – so be careful! Investors must first perform some standard analyses to analyze the credibility of gold companies and simultaneously the gold itself. Also, it is essential to consider the cost per ounce of production and the gold reserves themselves. First understand this business, then invest in it, advises an analyst.

Are you curious about gold, but unclear what to do? Then visit the best Internet resources like the World Gold Council's home page. It is a non-profit entity that gold companies fund to enhance awareness and knowledge of gold. Whatever the resources indicate, gold is no doubt becoming many people's prudent choice.

With demand increasing, gold is truly the metal of today, tomorrow and the future. Yes, as in days of old, when prospectors risked their lives ranging over craggy African mountains or digging out the ore in a mile deep shaft in Peru, gold is always good! A-P

Environment Friendly Management

BY AMANDA MIN CHUNG HAN

There are always fads and trends not only in fashion, but also in business management strategy. Six sigma was once a must have tag to improve the manufacturing processes. According to the book "Institute's Six Sigma Breakthrough and Beyond," by the late 1990s about two-thirds of the Fortune 500 organizations had begun Six Sigma initiatives with the aim of reducing costs and improving quality.

There was Quick Response Manufacturing (QRM), a companywide strategy for reducing lead times, which was first developed in the late 1980s. ISA-95, an international standard for developing an automated interface between enterprise and control systems, has been developed for global manufacturers.

Customer relationship management (CRM) is also a broadly recognized, widely-implemented strategy for managing company's interactions with clients. Supply chain management (SCM) is used in executing supply chain transactions. Knowledge management (KM) is a relatively new strategy since the turn of millennium. A Korean business newspaper established an economic forum called 'World Knowledge Forum' in 2000. The current Korean administration even changed the name of ministry from 'Ministry of Commerce, Industry and Energy' to 'Ministry of Knowledge Economy' in 2008.

Sustainable Management (SM) also caught the eyes of the public as people are concerned about environment. Sustainability has three substructures: the environment, the needs of present and future generations and the economy. The environment was part of sustainable management, but environmental awareness led to environmental friendly management and may bring

"zero-carbon management." Under the United Nations Framework Convention on Climate Change, Korea is classified as developing country that is not required to reduce emissions. Still, the Korean government ratified the Kyoto Protocol and already had policies in place to reduce greenhouse gases.

Accordingly, Korean companies set goals to reduce carbon emissions and some earn money and cut expenses. Hankuk paper is one of them. A printing paper manufacturer, Hankuk paper buys surplus steam from Korea Zinc Inc. to dry wet and thick pulp to produce paper. The steam is cheaper than bunker C oil and also it hardly emits carbon dioxide unlike Bunker C Oil. The cooperation benefits Hankuk paper, reducing fuel costs, and Korean Zinc Inc. earns money from the deal. It is win-win for both firms.

This idea started from good location and a simple communication with companies in the same industrial complex. Each company and/or factory is in the range of 3 to 5 km from Hankuk Paper in the complex.

Kim Jong-Soo, team head of technology planning, said "As people of each company know each other, sometimes we share ideas of reducing green house gases and expenses. Reducing carbon emission is a new mission for Korean companies."

Hankuk Paper put much effort into managing environmental friendly processing in the paper manufacturer to get rid of the misconception that the paper industry is responsible for environmental pollution and disruption due to its logging. While he was sharing ideas with colleagues and employees from neighborhood companies, he learned that his company needed steam and Korea Zinc Inc. had overabundant steam from its manufacturing process.

"We consume 1.06 million tons of steam per year for paper making in the paper mill. To generate 1 ton of steam, 67 liters of Bunker C Oil needs to be burnt, which means we need to buy 71 million liters of Bunker C Oil annually. It costs around 44 billion won ($35 million)," Kim explained.

Burning Bunker C Oil is not only expensive, but also fumes out greenhouse gas. If steam replaces Bunker C Oil, the paper making process will not emit carbon dioxide that makes Hankuk Paper as a carbon-zero company. Two companies started negotiating the steam trade. As Korea Zinc Inc. is 3 km away from Hankuk Paper, establishing a pipeline between the two companies is enough to deliver steam.

The negotiation took a long time. One year was spent making the deal happen. Hankuk Paper and Korea Zinc Inc. agreed to trade half million tons of steam per year. Hankuk Paper will be supplied steam from next year for seven years.

Why did it take so long to make the deal? "Because we didn't know how to assess the price of steam and Carbon Emission. There was a not clear criterion to judge or many precedents to consider," Kim said.

From three companies, Hankuk Paper gets 1.06 million tons of steam annually, and expects to save 44 billion owns in oil expenses. Considering the company's estimated operating profit for fiscal 2010 is 45 billion won, it has a very positive effect economically and environmentally.

Accordingly, Korean companies set goals to reduce carbon emissions and some earn money and cut expenses. Hankuk paper is one of them. A printing paper manufacturer, Hankuk paper buys surplus steam from Korea Zinc Inc. to dry wet and thick pulp to produce paper.

This cooperation is also good for Korea Zinc Inc. The company used to generate electricity with steam to save costs and the environment. However, generating electricity from steam lost much of its heat energy during the process. Selling the steam to Hankuk Paper is more effective for Korea Zinc Inc as well.

It is the first case in the paper industry that a firm is using steam from another company. Competitors in the paper industry are considering establishing a cogeneration plant. Kim thinks Hankuk Paper was lucky to be near other companies in an industrial complex.

Hankuk Paper also hopes that recycling steam gives it better credit from the public as an environmental friendly company. The paper industry is an energy-consuming industry.

The late chairperson, Dan Sa-Chun, the founder of Hankuk Paper foresaw that the carbon emissions would be a big social issue. He ordered forest trees in a size of 52 million square meters plantation to prevent climate change. At the same time, the company has come up with an answer to reduce carbon emissions.

Kim also hopes that people think the paper industry is a friendly one. "Paper companies have spent a big amount time to consider less energy consuming processing. At the same time, they have planted numerous trees -- more than which are consumed."

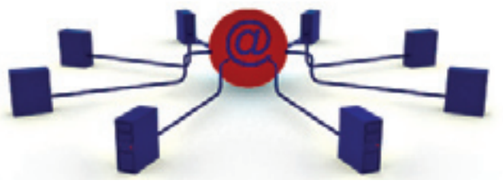
This kind of cooperation between companies in a same industrial complex is encouraged, especially in Eco Industrial Parks (EIP). Hankuk Paper and Korea Zinc Inc. are in a same Ulsan Eco Industrial Park. The Ministry of Commerce, Industry and Energy launched on a project to build ECO industrial park which pursues zero-emissions by recycling byproducts, waste, used energy generated from the industrial complex, so that they could be used as material or energy sources for other production activities. There are currently five Eco Industrial Parks including Banwolsihwa, Ulsan, Yeosu, Cheongju, and Pohang. As part of the ECO industrial park project, waste heat (steam) generated from the Ulsan-Seongam incinerator is channeled to the Hyosung company (located within the industrial park), which not only provides economic benefits, but also reduces the use of fossil fuels, and consequently decreases COĐ emissions. Through this project, Hyosung company saves 3.9 billion won annually, as well as reduces 55,500 tons of carbon emissions.

From next year, another newly launched incinerator will channel waste heat to the Hyosung company, which will increase Hyosung's savings on fuel to 5.9 billion won per year.

Korea Industrial Complex Corporation (KICOX) has led the Eco Industrial Park project since 2006. During that time, KICOX has invested 29.3 billion won to five Eco Industrial parks including Banwol-sihwa, Yeosu, Cheongju, Pohang and Ulsan-Seongam incinerator to get 49.8 billion won in economical effects, with a reduction of 197,000 tons of carbon emissions.

In Pohang, Dongkuk steel mill Co., DSI and POSCO cooperated to reuse steel waste as a substitute of scrap metal. In Cheongju, Hynix Semiconductor Inc. separate and refine waste sulfuric acid and waste hydrochloric acid, then supply it to companies which need sulfuric acid. Annually, 10,000 tons of waste acid is reused by the system. The Eco Industrial Park project also helps to hire people to generate new jobs. The official at KICOX said "Eco Industrial Park aims for Carbon zero emission to be a future green industrial complex." A-P

The future of Asia-Pacific MSS market



BY ANURAG AGNIHOTRI

Amidst the prevalent global network security threats, Asia Pacific Managed System Security rose to the occasion and emerged victorious in terms of growth and popularity. According to the article entitled "Escalating Security Threats Trigger Growth in the Asia Pacific Managed Security Services" posted on www.researchandmarkets.com, such success was due to the fact that more and more organizations cannot handle the complexity of running an efficiency of Security System Management.

These organizations are turning to someone for help and Asia Pacific MMS service providers are the beneficiaries. Most of these businesses and organizations also see the practicality and the efficiency of contracting third-party entities. The realization that a security system is very much important for crucial company and consumer data has been part of these organizations' concerns. A cost-effective means of securing and managing such a system ais gaining popularity. The article also clearly fortifies this trend by stating that the MMS market gained a good 10.8 percent growth on a year-on-year basis. Apparently, total revenue of $1,140.7 million was recorded for 2008. There is also an expectation of a CAGR growth of 19.7 percent for 2008 until 2010. Huge corporations and businesses remain the primary customers of these outsourced services. The article stated that the main reason behind the growing participation of China, Vietnam and Philippine's developing market is the local service players. It also listed the barriers for growth. These are de-regulation, lack of telecom, undeveloped profit model in MSS, and the security services' need for a high-level of expertise.

Frost & Sullivan expects that Asia managed security service will gain more ground in 2015 and will be worth $4 billion. Revenues are also expected to rise on a yearly basis with an estimated 19.7 compound growth in a span of five years. In the Asia Pacific region, it is the large enterprises that make up the 75 percent total revenue. Cathy Hong, an industry analyst for Frost and Sullivan also believes that the small- and medium-sizes businesses will eventually mature in terms of using outsourced service providers. Hong expects that revenues will shoot up 18.2 percent from last year and will be close to $1.55 billion. In an interview she said: "As network security risks continue to mount and compliance mandates become more stringent, organisations are forced to implement an ever-increasing number of security technologies. The managed model is a compelling option for SMBs who can ill-afford large capital expenditure (CAPEX) on security solutions, nor cope with the complexity of an endless onslaught of newer and increasingly targeted threats." She further claimed: "As SMBs realise the economic sense in the shared infrastructure model, the attraction quotient would ramp-up significantly, particularly for hosted security services where the equipment is owned and housed at the service providers' premises and users need only pay for on-demand services."

In the Frost & Sullivan research entitled "Asia Pacific Managed Security Services (MSS) Market" specialists describe device management services in different models in analytical details. Such models are hosted, customer premises, equipment and (CPE)-based. This study also revolves around three important elements. These are hosted service management/monitoring services, assessment services. It also reveals that the hosted security service that are more in the demand checklist for large enterprises are monitoring and management services.

Frost & Sullivan's Network Security Research and Consulting is a team of market analysts, consultants and research executive is a team that globally offers industry analysis, growth and custom consulting, market research and forecasts that assists firms' growth. To come up with timely strategic market intelligence, they focused on motoring and evaluating the Intrusion Detection and Prevention Systems, Security Event Correlation, Managed Security Services, Web Application Firewalls, SSL VPN, Hardware Authentication Devices and other related security systems.

Related studies

On a similar note, Vivien Yeo of ZDNet.Asia pointed out a study made by a company called Symantec Hosted

BUSINESS

The realization that a security system is very much important for crucial company and consumer data has been part of these organizations' concerns.

Services. This study was conducted to measure the willingness of Singaporean-based businesses to accept security service outsourcing. The result of this study done by 104 IT heads was highly favourable to such a service. Symantec announced that one in four companies actually adhere to such type of service. 55 percent of these Singaporean companies, although not currently making use of such service, are planning to do so in the near future. In their statement, Symantec revealed that "Most respondents believe that security expertise is the top benefit of a hosted security service, as compared to having in-house IT personnel who may not have the necessary expertise or resources to keep the system updated and effectively protected against constantly evolving cyber threats."

Examining the system

In his "Market Overview: Managed Security Services" article, Steve Hunt together with other analysts explained that Managed Security Services is an umbrella term that includes integral categories of services. These categories include on-site consulting, remote perimeter management, and product resale, managed security monitoring (MSM), vulnerability/penetration testing and compliance monitoring. Hunt further stated that there is a trend of outsourcing security services. According to him, this trend of looking for outside help is caused by cost-reduction initiatives and solutions to personnel shortage. Installation, maintenance and monitoring of related hardware and software and direct hiring of dedicated and expert staff is looked upon as auxiliary costs by a number of companies.

On the website www.infosectoday.com, Grant Geyer, vice president, Global Managed Security Services, Symantec Corp. enumerated the four classes of security service providers. These are Strategic Outsourcers (SOs) Telecommunication Providers, Enterprise Pure Plays and Boutique Pure Plays. Strategic Outsourcers offer the complete outsourced solution while Telecommunication Providers provide additional security elements and "in-cloud" capacities. Enterprise Pure Plays on one hand are software companies that include MSS in their main portfolio and Boutique Pure Plays, on the other, is focused on MSS majorly with just a little professional service programs as complimentary. He warned that although there are a variety of service providers out there for companies to choose from, the outsourcer and the outsourced security must be examined carefully so that they match the client's needs.

Frost and Sullivan's Cathy Hong claimed that larger enterprises are more inclined to outsource remote monitoring and management as opposed to hosted services that offer the seemingly unpopular "cloud model." This model is perceived to strip the client of the actual control of the system. This statement is proven when the firm's study revealed that the most outsourced functions in 2009 are monitoring or management services coupled with 24-hour monitoring and log analysis. Such services account for about half of the MSS total net earnings.

Is MSS Truly Necessary?

Sandra Palumbo in her study entitled "The Managed Security Services Opportunity" pointed out that security is a sophisticated challenge for contemporary businesses and consumers. As the world becomes smaller and smaller due to globalization and technology development, threats to the communication system are becoming imminent. In the early years, businesses are faced with hackers and viruses. Nowadays, there are more well-organized fraudulent attacks that aim at stealing a large number of information for financial gain. As this presents a headache for business owners and administrators, the ordinary consumers may also be inclined to be weary with security attack issues. These may lead to a drifting focus on the business core, losing consumer confidence and looking for business alternatives altogether.

As a response, there has been a fast demand for security systems and evolution. Security of data whether personal or business is such a tremendous challenge that it requires not only properly deploying and setting the needed security system but monitoring and updating solutions. These are tasks that require knowledgeable and well-trained staff. Unfortunately, more often than not, the expertise and cost allocation needed to quickly counteract system vulnerabilities is usually beyond the reach of several enterprises.

Palumbo further discussed that as security threats continually to evolve and become sophisticated, the small and medium sized businesses together with consumers are failing to win the battle. By simply letting an expert group handle the situation, companies will save time and resources. In addition, security system technology is constantly changing as it keeps up with the equally growing number of threats. Being partners with an external service provider will ensure a security system that is not only safe but consistent with the times. The forecast is that the managed security system industry will have a compound annual growth rate of 14 percent from 2006 to 2010.

The Final Note

There is no doubt that there is a great number of business online environments out there that are seeking to secure their business and client related transactions. Just in the financial scene, thousands of project managers of banks and private financial institutions in the market are given the task of creating online initiatives but are finding themselves troubled with online security enforcement and maintenance. The existence of Managed Security Systems service providers is a key to such troubles because of its comprehensive solution, time efficiency and cost effective nature. An existing problem for some is an opportunity for others. This is the perfect example of a win-win situation for both parties. It is a simple idea that the world seems to adopt quite comfortably, especially in the Asia Pacific region. A-P

Emerging Engineering Innovations in South Korea

BY VINTI VAID

The growth of South Korea as a major contributor in the field of science, engineering and technology can be considered a story for many growing economies to emulate.

The continuous and huge investments made in human resource development and research activities have borne fruit by building a remarkable innovation system in the country.

In the early 1960's, Korea was a developing country characterized by poor resources, production bases and a minute domestic market. Even national security was a question with added problems from a large population. Korea's gross domestic product in 1961 was only $2.3 billion or $82 per capita. Also, international economic interactions were minuscule with insignificant exports and huge imports.

Korea was no name in the field of science and technology. With only two science and technology institutes one in atomic energy research and the other in national defense and a meager number of trained scientists and engineers, the nation was far from the technological revolution widespread in the rest of the world.

If Korea is considered a dynamic economy now, then it is due in part to the policies followed by the country with respect to science and technology. The country undertook heavy investments in human resource development and companies were encouraged to compete in global markets. Later, more emphasis was given to the scientific research scene by emphasizing more on the basic system for innovation to make the economy prosper.

Korea's economic development plan drawn up in 1962 strived to put an industrial base in place that could support both import substitution and export promotion. Foreign technologies had to be adopted as starting from scratch would have not been feasible. The two pronged initiatives taken by Korea involved promoting the inward transfer of foreign technologies and developing the domestic absorptive capacity to digest, assimilate, and improve on the transferred technologies. Korea encouraged reverse engineering, original equipment manufacturing and foreign licensing methods. This increased worker knowledge.

Long term foreign loans were procured, which came with optimized foreign technologies. Korean firms benefited a lot as workers gained technological know-how from foreign buyers who provided the product designs and materials and also monitored quality control in the production process. Workers gained immense knowledge in the garment and electronics industries.

The government realized that to sustain the initiated development there was a need to build indigenous research and development capability. The National R&D Program launched in 1982 encouraged and promoted research activities besides offering tax credits for investments and worker development. This exposed companies to international competition. Export performance was rewarded and companies were given better opportunities and access to financial resources.

Chaebol

Soon Korean firms, especially large ones, learnt to keep themselves competitive and invested heavily on research to keep abreast with the technologically advanced countries of the world. This lead to the formation of unique business organizations in Korea called the "chaebols" which functioned in many ways like the Zaibatsu in Japan before World War II.

Chaebols leveraged economies of scale and developed their businesses aggressively. They attempted risky and expensive R&D projects that were out of scope for small and medium businesses. This resulted in a decrease in technology imports and the key word became "innovation" in every sphere. Korea soon rose in position as a large investor in R&D among Organization for Economic Cooperation and Development countries.

Korea's success in the engineering field was due to investments in research for which it needed educated personnel. Human resources had to be developed more than even financial resources. The Korean government invested huge amounts in education and human resource development. This in turn lead to innovative ideas and technologically advanced products which are in great demand the world over, taking Korea to higher echelons in the engineering arena, be it construction technology, electronics, entertainment, packaging, medicine, biotechnology, automotive or renewable energy technologies.

Innovations in medicine

The Korean efforts in medicine are remarkable. The Seoul Stem Cell Research Center along with Tissue Engineering and Regenerative Medicine International Society or TERMIS strives to do innovative studies in the fields of tissue engineering and regenerative medicine, which involves engineering, biology and medicine. The research will revolutionize the way tissue can be replaced, repaired and maintained in the body for therapeutic and diagnostic applications. This is expected to be an innovative field of the future.

The rise in life expectancy further encourages tissue and organ treatment. Korean efforts are leading to remarkable and exciting innovations in tissue engineering and regenerative medicine, which are expected to enhance healthcare and biomedicine. The resulting solutions will help treat chronic, age-related, traumatic diseases besides Parkinson's disease, arthritis and skin ulcers.

The national system of innovation was developed at the end of the 1980s in Korea. Efforts are being taken to improve the Korean biotechnology field under the system. Biotechnology has gained the name as a key technology of the present and future. "Korean system of innovations for biotechnology" strives to take the theoretical considerations in the field and arrive at innovations which are Korea specific.

Communications Technology

WiBro or Wireless Broadband is a wireless broadband Internet technology and is an innovative technology developed by the South Korean telecom industry. WiBro is expected to overcome data rate limitation of mobile phones and also provide mobility in broadband Internet access. WiBro can stream video content and other loss-sensitive data and is precise about the spectrum use and equipment design making it a more advantageous communications technology compared to WiMAX.

Korean national IT project gave the world Digital Multimedia Broadcasting (DMB), which is a digital radio transmission technology. The technology enables multimedia like TV, radio and datacasting to mobile devices including mobile phones. Also called mobile TV, DVB is a digital technology for replacing FM radio. The transmission can be effected both via satellite (S-DMB) and by terrestrial (T-DMB) mode. South Korea was the first to launch these services in 2005.

Entertainment

South Korea-based Saehan Information Systems was the first to launch the MP3 Player in the name of MPMan.

The MPMan is a Flash-based player and was available in 32 mb, which is equal to the storage capacity of 6 songs. The players were licensed to Eiger Labs, which distributed the devices as Eiger Labs MPMan F10.

In 2001 the first MP3 players were installed into mobile phones in South Korea. Soon a majority of music content was sold directly to mobile phones. Within a few years, major mobile phone companies came out with music phones. The sale of music phones surpassed that of MP3 Players. Now most mobile phone models come incorporated with an MP3 player thanks to the Korean innovation.

Korean Automotive Industry

The fostering of a strong economy also included developments in its automotive industry. To develope the automobile industry, the Korean government announced the "Automobile Industry Promotion Policy" and the "Automobile Industry Protection Act" in the 1960s. Foreign automakers were not allowed in Korea to operate by themselves. Three new companies were started that operated with help from foreign companies like General Motors, Mazda, Nissan etc.

After going through many ups and downs, the Korean automobile industry started growing with Hyundai Motors exporting nearly 1 million cars to the United States in one year. Its various models were selected for many awards on foreign shores. But quality became a question mark and the company's sales fell.

Not to be bogged down, Hyundai started investing heavily in quality, design, manufacturing methods and long-term research and improved its stand in the world market. In 1998 it took over KIA motors and established itself firmly in North America, its large export market. The company opened manufacturing facilities in the U.S., also striking gold for its development efforts.

New Energy Technology Innovations

Presently, there is a dire need for clean green energy. In its endeavor to make its presence felt in the latest green technologies, the Korean government instituted the Korea institute of Energy research to conduct research in fuel cell technology. The "Promotion Act for the Development of Alternative Energy" in 1987 encouraged the development of innovative new ideas in renewable energy sources including fuel cell and photovoltaic and wind power.

Innovations in new technologies were promoted especially after the 1978 oil crisis. The National Energy Plan and R&D Program propelled fuel cell innovation. This helped Korea reduce its import dependence on fossil fuels like petroleum. Steps were taken to leverage 11 major alternative energy technologies like solar, thermal, bioenergy, hydropower, coal gasification, water recycling, geothermal and hydrogen technology etc.

The drivers of innovation in the renewable energy sector in Korea were energy demand, change in government policies and regulations and technological advancement. Chief contributors for research in this fuel cell and photovoltaic field are Seoul National University, Yonsei University, Korea University, Sogang University, Korea Advanced Institute of Science and Technology and others. Many private firms such as LG, SKC ATS Solar, Hyundai Motors, Kukdong City Gas, LG Oils and LG Industrial Systems are also involved in promoting the new technologies.

To further enhance and promote technology dissemination, the Korean government is providing financial and institutional support to small power generation businesses and other companies. More international collaboration is expected to occur to promote innovation for commercializing these new technologies. A-P

Storage Technologies Market Trends in a Tight Asian Economy

BY REENA SAXENA

Since the time when semiconductors were invented during the late 1950s, one of the key indicators that signify advances in silicon-based electronic devices are their significant (and in some cases exponential) growth in storage capacities.

The importance that this highly vital element provides in business, commercial or personal computing has made it a prime commodity – a vital element in their industry where serious investments are made. This is to ensure the integrity and security of all data and information vital to the business, organization or professional.

What started out with the inefficient brittle hard drives 20 years ago is now replaced by disk storage systems that can be placed inside a one-inch multi-gigabyte MP3 or multimedia player, or an external hard drive for personal computers which have capacities running in the terabyte region. Enterprises utilize RAID or Redundant disk arrays which allow users to simply purchase additional units and stack it on top of existing systems should the need arise for additional storage.

According to the International Data Corporation, the demand for storage capacities and technologies in the Asia-Pacific arena continues to remain strong.

Such continuous demand for efficient storage systems and capacities in the Asia-Pacific region indicates the increasing need to organize and protect larger and more complicated volumes of data used directly in business or as references – despite the tight economic slowdown that still grips most of Europe and the United States. There are several factors that affect and influence this demand, which includes cheaper disk storage, market competition, storage capacity of hard disk drives, and the move towards modular disk storage.

The following is a look at the market for storage technologies, including past and future trends, as seen from an Asian perspective. This information will provide an insight into these trends – information which could prove highly valuable for entrepreneurs, companies and business ventures contemplating engaging this market.

Historical Trends and Market Performance

In the past, the trend of demand for disk storage systems in both internal and external storage capacities continued to remain strong in the market, with considerable growth indicators as seen from year-on-year comparisons starting from 2003 to 2006. Most of these growth figures were obtained from the entry-level and midrange storage markets, which incidentally coincided with the growth of small and medium business enterprises that were set-up in markets and industries that registered the highest growth percentage.

The demand for entry level disk and midrange disk storage systems was brought about in part by the appeal of lower prices as compared to enterprise systems. The emergence and greater acceptance of the cheaper SATA or Serial ATA drives was also one of the most significant factors that contributed to this steady growth and demand. Despite falling quarterly revenues, most companies continue to press on with their needs for new storage capacities in the form of external drives, with China dominating most of the market at 30.6 percent, followed by Korea at 16 percent and Australia at 15.5n percent.

Global Financial Crisis: It's Impact on the Storage Technologies Market

The tremendous growth experienced by the storage technologies market from 2003 to 2006 was expected by industry speculators to die down with the advent of the Global Financial Crisis in 2008. But contrary to this forecast, the market continued to enjoy increased sales volume in terms of capacity sold as well as in revenues garnered by major players in the industry. This was brought by the increased use of video and other multimedia-based information, as well as new policies that required enterprises to have better data and information backup systems – resulting in a year-to-year growth of up to 60 percent.

This growth was not only experienced by the total disk storage system market, but also by the external storage market, which grew with an average of 18.8 percent, with Japan taking on the lead at 38.7 percent and the rest of the Asia-Pacific region at 16.6 percent. Other parts of the world like Latin America enjoyed similar growth, registering at a high 25.2 percent, the Middle East / Africa at 22.3 percent and even a 12.7 growth in North America despite being hit the hardest by the global financial crisis.

There were some dips though in this seemingly continuous growth, when figures dropped during the first half of 2009. This was due to the cautious and restrained spending on IT maintained by many corporations in the Asia-Pacific region brought about by the aftermath of the global financial crisis. The rapid adoption of storage technologies in the past years also created a lull in spending and the emergence of virtual solutions promising increased utilization of existing storage facilities also contributed to this slowdown in growth.

Although the decline registered 8.6 percent globally, focused mostly on external disk storage systems affecting Japan, the Middle East, Africa and other regions, the total disk system market eventually made a rebound later during the fourth quarter of the year, which registered a year-over-year growth of 29.7 percent as compared to the previous year. This is due to increased migration to networked storage systems facilities gradually being adopted by major Asia-Pacific enterprises.

Despite the fact that most storage technology enterprises worldwide and in the Asia-Pacific region experienced revenue drops resulting from the smaller growth demand of only 14.8 percent (the smallest since the boom started in 2002), vendors or storage solutions are positive that the market will rebound in 2010, particularly with the move of many small and medium enterprises to start investing in storage solutions for their core businesses.

Market Outlook in a Tight Asian Economy

These forecasts proved true as revenues registered a year-to-year growth of 17.1 percent during the first quarter of 2010, particularly in the external disk storage system market. Overall disk storage system market growth registered 18.8 percent as compared to the same period last year. These figures are seen by experts as an indication of market recovery from the global financial crisis, suggesting that enterprises are once again increasing their IT infrastructure budgets and would renew their pursuit and demand for larger storage solutions for their companies and organizations.

A report by research service provide Frost and Sullivan outlined and identified the drivers that brought about this rebound in the storage technologies market outlook in the Asia-Pacific region, as well as other markets, which include the Middle East. The report focused on storage technology segments focusing on direct attached storage, network attached storage and storage area network solutions.

These regional markets appeared immune to the global economic slowdown as indicated in both revenue and data capacity growth. This is due mainly in fact to the need of Asia-Pacific and Middle Eastern enterprises to establish effective disaster recovery solutions to ensure business continuity by adopting new and emerging storage technologies. Such adoption of technology solutions at various levels was made in a bid to gain a technological edge and reduce operational risk through improved data management and recovery systems.

The report further indicated that based on analyses made by Frost and Sullivan, the market for storage technology solutions in India, South Asia and the Middle East will continue to grow sharply. This continued growth is brought about by continuing demand for data, computing, and business continuity enterprise solutions in this market.

Many of these enterprises are looking towards investing in in-house storage solutions, while others would look towards outsourcing their data back-up needs through networked storage providers. Either way, these enterprises are looking towards improving their company or organization's capability to recover from any potential data storage disaster. Having such efficient capabilities for disaster recovery would ensure business continuity regardless of any unforeseen events involving their data storage facilities and systems. A-P

Growth of the Automobile Industry in Thailand

Continued from Page 37

investment destination in the region. Thailand is fast becoming a power to contend with, considering the automotive industry. Almost all major Japanese car producers and other auto majors like BMW, Mercedes Benz, General Motors, Ford, Volvo and Peugeot assemble cars in Thailand. Along with the auto parts industry the country has become a strong production base for automobiles in South East Asia.

The auto industry is a priority sector and is looked upon as a driving force behind the country's economy.

Before the 1997 economic crisis, the auto industry developed in Thailand for meeting domestic demand for cars. The crisis period saw excess production capacity and to tide over the times, export was considered. Thai auto exports increased significantly. The government tried to leverage the capacity and capability and drew up the Automotive Industry Master Plan to make the nation economically strong as it will augment the supporting auto parts and other industries also.

According to researchers and experts in the field, if the Thai auto industry continues to grow as envisioned in the Master Plan for automobiles - that is reaching a total production of 1.8 million units and export of 800,000 units by end of 2010 - then exports will grow around 13.5 percent steadily thereafter. If the growth continues beyond 2010, then Thailand is poised to become an export-oriented auto producing country with automobile exports far surpassing domestic use. A-P

Q&A TONY MICHELL

Tony Michell is that most rare of Korea experts. His own local colleagues encouraged this learned, objective analyst to write about business here. Tony has worked at the Economic Planning Board, consulted for the World Ban, multinationals and governments, and is Professor of Strategy and Management at the KDI Graduate School of Policy and Management. He gave this exclusive interview to Business and Technology about his book, Samsung Electronics: And the Struggle for Leadership of the Electronics Industry (Wiley and Sons, 2010).

BY VICTOR FIC

For our younger readers, recall the founder of Samsung's background and major qualities.

Lee Byung-chull was the son of a wealthy merchant family, and attended (Japan's) Waseda University during the 1930s before founding his first business (using) motor trucks to out compete his (rivals)... he was a remarkable man (whose) business principles drove Samsung forward.

The Chinese say that the first generation wins, the second consolidates and the third one loses ... family firms fail. As for Lee Kun-hee, the son who took over – size him up.

Lee Kun-hee was not the eldest of chairman Lee's sons (so) this saying needs to be adapted since ... most of the Korean chaebol founders did not pass their business to their eldest sons

In Korea, it is said that the eldest son is likely to be the least successful. In the 19th century when Britain was ... founding new firms, it was generally felt that the successor was never as good.

Lee Kun-hee clearly learned some important principles about running a conglomerate as large as Samsung, (e.g.) to raise good lieutenants and future generals and not to micromanage. He has played the true chairman in setting the direction and vision, but not interfering in the work of his managers.

Samsung means three diamonds, and so does the Japanese corporation Mitusbishi's name. How much did Samsung borrow or copy from Mitsubishi or Japan?

Lee Byung-chull studied in Japan and spent about half a year in Japan during much of his life. He would therefore have absorbed a great deal of Japanese thinking (and) kept a close eye on business opportunities that Samsung could learn.

Are the Korean chaebol similar in their values, ends, means, management and ties to politics, say like tigers? Or does Samsung stand out among them – like a tiger among antelope?

Each chaebol reflects the character of the founder and successors and the types of business which they (performed). Hyundai grew out of construction business at home and abroad, and until the present chairman always had a rough and ready character, while Samsung was always a more calm and collected company. LG is different again.

Within twenty years, Samsung was a world class company. What is the nucleus explanation for this rapid ascent?

The book describes how Samsung Electronics rose to dominate drams. For the first 20 years down to the late 1990s, electronics was just one of Samsung's companies. It became the most important as vice chairman Yun sculpted the company into a global practitioner.

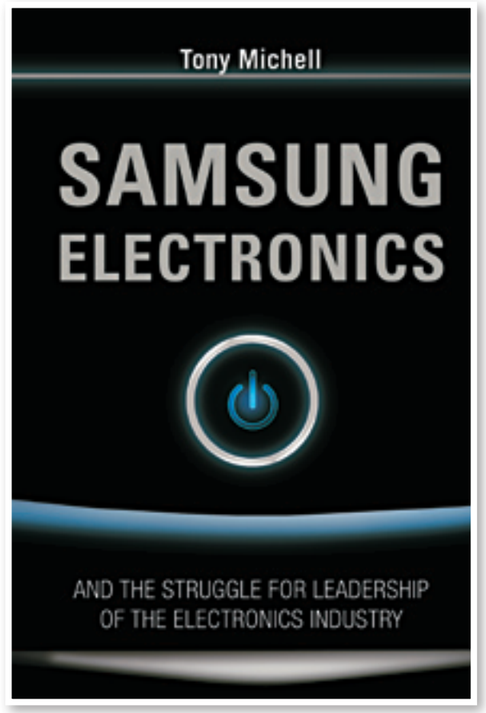
You argue that the 1997 financial crisis in Korea and East Asia severely challenged the company. What was the risk? How did it cope?

All chaebol were at risk, and half of the top 30 failed or survived in an attenuated form. Samsung also had enormous bank loans and three or four companies that were black holes that could not be filled by throwing money at them, only by closing them. Samsung Motors was the largest of these.

It came back stronger, but then faced the global near meltdown of 2008. What were the stakes and game plan then?ß

The crisis of 2008(was) a difficult time for Samsung given a slowdown in sales in 2007. However... Samsung's prices fell less than (its) competitors (and) core sales of components continued to play their part in the overall company's welfare. But the real success was in telecommunication, both for handsets and systems which by the end of 2009 was joined by a rise in the demand for Drams and NAND flash.

The restructuring of Samsung meant that Samsung Electronics was not called on to help sister companies as in 1997-9 (and because) there was no financial meltdown in Korea unlike in the U.S. and Europe meant that the overall Korean economy was not too depressed. Samsung and other exporters gained by the depreciation of the won, which increased the profitability of their exports, offsetting reduced export volumes to a degree.



You identify a Korean versus global voice in Samsung. Who is behind them?

Korean companies have very complex social networks. The Korean voice represented the conservatives (or) the older managers. The global voices were the leaders of Samsung like Yun and those who ran Samsung America.

Is this divided vision unique to Samsung or especially acute there?

No, it is part of the transition all Korean companies (face). Samsung reached it earlier because the overseas market was a more important part of the business, and selling in the U.S. was considered more important.

You note that Samsung has a massive R&D division of 30,000 people. Is this the world's largest? Is it worth it to concentrate so many resources in one section?

Many Korean companies (have) large R&D departments. For an electronics company, this is not unreasonable, but rather a strength (if) cash cow businesses ... supports the structure.

Why did you opt for the case study method over interviews with Samsung leaders and workers?

Samsung discourages "unauthorized" books about itself. As I say in the introduction, to have interviewed people would have put them at risk. By using comments already in print or using articles which substantiated what I found out from other people, this made the book more secure in its foundations. I think the book will stand the test of time.

You do not quote the executives and employees much. Did you lack access?

I deliberately did not use off-the-record comments, instead using public statements precisely for the reason stated (above).

As for chaebol reform, many argue that these giants are too big, important and politically connected to face serious reform.Your take?

Chaebol reform is 80 percent over. Chaebol are not what they were, they are professional and well managed. The one difficulty is in making them fit a true holding company structure like GE or United Technologies, where the practice and control of the government in the past has made this difficult. For Samsung, the successful listing of Samsung Life, which the government prevented for many years is a further step in Samsung's reform.

Who should copy Samsung's experience? What aspects?

Obviously the Chinese new generation of businesses. Japanese businesses also have shown great interest in Korean companies as a contrast to their own perceived stagnation.

How is your analysis received in the company?

I have had no comment.

Why did you gravitate to this issue among all those that a talented analyst could examine?

I was asked to write the book by several Koreans who thought that a Westerner who knew Korea well would be able to write objectively about Samsung.

Where can our readers get more specific, ongoing information on the chaebol?

I find the corporate websites and annual reports fascinating. Likewise the Korean press writes a great deal on a daily basis.

Now to really test Tony Michell. Any predictions – on the record – as to Samsung over the next two, five or ten years?

Samsung has set its 2020 goal at $400 billion ... This is going to be attainable if it does not get distracted by new ventures and sticks to the knitting. (This means) the existing business since the convergence trend identified by chairman Yun and his cohorts in electronics continues and if Samsung can ride that wave through 3D TV and smart phones and adds a few more related business areas plus its core components, it can do it.

An alternative would be acquisition, though this would need to be in a related area and not the mistake Sony made by going into media. A-P

MEDIA

The Rise of Mojo-Mobile Journalism in Asia

BY STAFF REPORTER

Not a familiar term, Mojo stands for Mobile Journalists comprising of freelance reporters who do not have a newsroom or office in the news agency's premises. Mobile journalists are armed with sophisticated gadgets or technical tools like camcorders, digital cameras, laptop PCs with broadband wireless and the ubiquitous smartphones.

Mojos feed news to newspaper Web sites, online magazines, online newspapers, Web sites of newspapers, sites like YouTube and even their own blogs.

Some years back, Nokia and Reuters created what they called the Mobile Journalism Toolkit which comprised of a Nokia N95 cell phone, keyboard, small tripod and a solar charger. This toolkit enables Reuters journalists to file news from the original scene substantiated with video and photos taken from their mobile phone. These Mojos were spared the agony of lugging along laptop computers, cameras, microphones and other paraphernalia.

Mobile devices can help Mojos record events incognito where forbidden, as in case of riots against an oppressive government, scenes of crimes and so on.

It is a common phenomenon nowadays to show video taken by amateurs on their mobile phones to throw light on some gruesome incidents in remote locations of the world. In such cases citizen journalists take the role of Mojos and wielding their cameras record such incidents and send it to news agencies via MMS.

Such is the power of Mobile Journalism.

In Asia, the growing usage of mobile phones and other devices, media censorship and gaining popularity of Web-based tools and social networking, have resulted in a quantum leap in mobile journalism.

Whether it be reporting on natural disasters, conflict zones, government action or inaction, or just fun news, the mojos have captured it. Mojos filed shots of protests in Burma, bombings in Jakarta, and the aftermath of the typhoon Ketsana in Philippines soon after the event took place.

Mobile devices can help Mojos record events incognito where forbidden, as in case of riots against an oppressive government, scenes of crimes and so on.

Information and communication technologies are leveraged to their maximum capabilities by Mojos to bring news to the world as soon as possible. This has indirectly spurred a war among news agencies as to who files the news first.

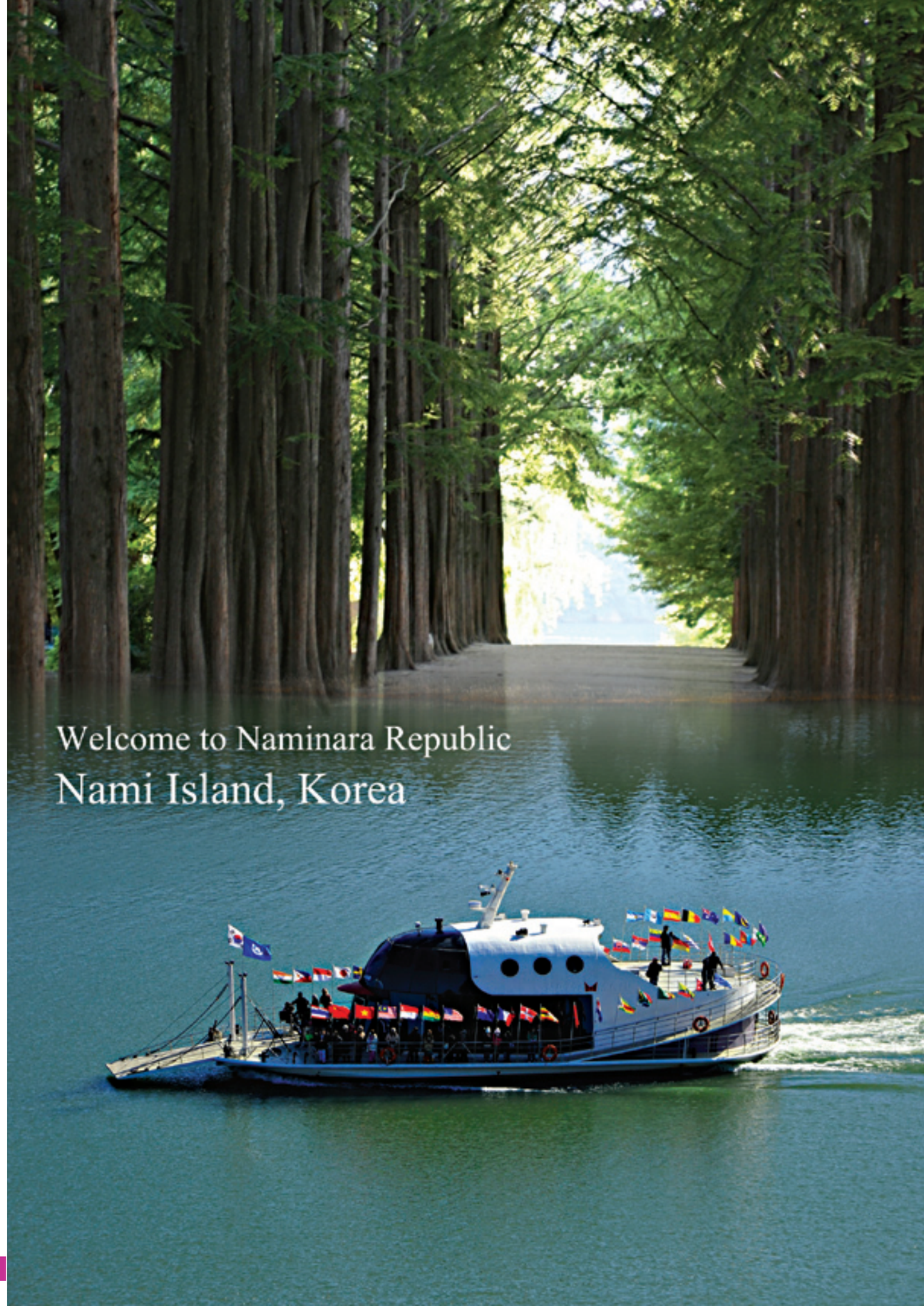
Dr. Stephen Quinn, professor of Journalism at Deakin University in Australia, says in his book "Mojo-Mobile Journalism in the Asian Region," that out of the over 4.2 billion mobile phones used in the world, 43 percent are in the Asian region. Usage being so widespread in Asia it is easy for Mojos to collect news and upload it to a Web site or send it for editing to news agencies.

New gadgets like the Flip video camcorders are used to record video and post it on the Web. Even small devices like Flip Mino can record high-definition videos. The iPhone's applications enable it to be used as a podcast tool for reporting purposes. The Poddio app for the iPhone help Mojos gather and edit recordings instantly before upload. By dragging icons, audio clips can be added to video sequences making the Poddio an optimized sound editor for broadcasters.

According to Datamonitor reports, mobile phone usage in the Asia-Pacific region is expected to shoot up which will lead to more Mojo news reports. Mobile phones are better alternatives to laptops given their compact size, coverage and ease of use. As Quinn puts it, mobile devices should not hinder the task of gathering and reporting news.

Although the task may be easy it is imperative for Mobile Journalists to possess journalism, research and writing skills and the ability to handle cameras and other mobile devices apart from following certain ethics in journalism.

Previously HAM radio operators used to keep tabs on happenings and broadcasted news by radio from a stationary post. Mojos now report from event sites with pictures. Looks like it is time for TV news crews to make way for Mojos and amateur citizen journalists. News will reach faster on an "as is where is" basis on news portals along with supporting video. A-P



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