BUSINESS LEADER OF THE MONTH: **PETER COHAN**

GERMANY STRENGTHENS BUSINESS TIES WITH ASIA

AERO INDIA 2011

CHINA LEADING THE ASIAN PUSH INTO GREEN TECHNOLOGY

ASIA-PACIFIC

Business & Technology

REPORT

WWW.BIZTECHREPORT.COM

Vol. 3, No. 4, 2011

₩6,000
£7.00
€8.50
US$9.99
CN$9.99

BUILDING BROADBAND FOR A BETTER MOBILE WORLD

INDIA'S GROWING DEFENSE INDUSTRY

IS ASIA READY FOR M-BANKING?

ONLINE SHOPPING MALLS IN KOREA

- POSCO GETS GREEN LIGHT TO OPERATE IN INDIA
- SHANGHAI AIRPORTS: SERVING BUSTLING, DYNAMIC CITY
- HI-TECH ADDS GLITZ, GLAMOUR TO MOVIE PRODUCTION
- ASIAN MOBILE CLOUD SERVICES EMERGING IN 2011
- PEKING UNIV. TO BECOME WORLD CENTER OF LEARNING

₩6,000 | £7.00 | €8.50
US$9.99 | CN$9.99

ASIA-PACIFIC **Business & Technology** REPORT

Cover Image courtesy of: ***Vkoletic | Dreamstime.com***

Publisher: LEE DEUK HO
Editor-in-Chief: LEE DEUK HO
Published by: Asia-Pacific Business & Technology Report Co.
Registration date: 2009.09.03
Registration number: 서울중. 라00307
Price: ₩6,000, US$9.99, CN$9.99, £7.00, €8.50
Annual subscription fee: ₩110,000/US$110

Managing Editor:
MR. SON-U MICHAEL PAIK

Chief Consultants:
DR. LAKHVINDER SINGH

Chief Business Development Officer:
KIM CHEOL HO

To contact Asia Pacific Business and Technology Report for advertising, submissions, subscriptions or general comments please email to **contact@biztechreport.com**

Vol. 3, No. 4, 2011
PRINTED IN SOUTH KOREA

Contents

Vol. 3, No. 4, 2011

COVER STORY

COMPANIES COVERED IN THIS ISSUE

COMPANY	ARTICLE(S)
Accenture	• Is Asia Ready for M-Banking?
Aegis Infoware Pvt Ltd	• 60% Growth in Laptop Demand Seen in Gujarat
Alcatel-Lucent	• Building Broadband for a Better World
Ambient Corporation	• Smart Grid: Challenges and Opportunities
Apple	• Nokia-Microsoft Deal: Innovation in the Offing
AT&T	• Smart Grid: Challenges and Opportunities
Chaori Solar	• China Leading the Asian Push into Green Technology
CJ Entertainment	• Hi-Tech Adds Glitz and Glamour to Movie Production
FiOS	• Smart Grid: Challenges and Opportunities
Gartner	• Enterprise IT Spending in Asia Pacific to Grow in 2011
GE	• Smart Grid: Challenges and Opportunities
Google	• Nokia-Microsoft Deal: Innovation in the Offing
GSMA	• Building Broadband for a Better World
IBM	• Asian Mobile Cloud Services Emerging in 2011
Intel Corporation	• Nvidia Says Chinese May Have Fastest Supercomputer
KPMG	• Is Asia Ready for M-Banking?
Infosys Technologies Ltd	• Indian IT Sector Back on Growth Path
LG	• Building Broadband for a Better World
Nasscom	• Indian IT Sector Back on Growth Path
Ozone Media	• Asian Mobile Cloud Services Emerging in 2011
Qualcomm	• Building Broadband for a Better World
RIM	• Nokia-Microsoft Deal: Innovation in the Offing
Samsung	• Building Broadband for a Better World
T-Joy Cinemas	• Hi-Tech Adds Glitz and Glamour to Movie Production
Verizon	• Building Broadband for a Better World; • Smart Grid: Challenges and Opportunities
Yahoo	• Nokia-Microsoft Deal: Innovation in the Offing

ASIA-PACIFIC Business & Technology REPORT

Building Broadband for a Better Mobile World

BY RAJANI BABURAJAN

The recently concluded Mobile World Congress in Barcelona gave strong indications about the future of the telecom sector.

In the coming years, telecom focus will be shifted towards the application side and operators will be deploying mobile broadband technologies to offer innovative services. Consumers will be enjoying mobile advertising, in banking, in health, publishing and television, among other things. The trend indicates the future will be the world of tablets. However, the success of tablets will depend on the availability of high-end video content.

Long term evolution (LTE) / 4G

The new mobile trend, as evident from the Mobile World Congress, indicates that LTE / 4G investments will go up in the coming years. Mobile broadband will fuel the growth of applications and devices, while LTE / 4G consumers will be attracted by multi-player gaming and live video.

2011 is also set to be the tipping point for LTE, with network deployments in 24 countries and the commercial availability of the first LTE-based smartphones and tablets driving more than four million connections.

Verizon Wireless and Alcatel-Lucent

Big equipment vendors and operators are fine-tuning their strategies to offer innovative services to consumers. Verizon Wireless and Alcatel-Lucent demonstrated a new development in this line with their interactive multi-player gaming and live video conferencing between Barcelona and a moving 4G LTE-enabled vehicle in the United States.

According to Brian Higgins, executive director at LTE Ecosystem Development at Verizon Wireless, "LTE is here, and Verizon Wireless is delivering end-user experiences that are changing the way we live, play and work."

The figure tells it all

HSPA Mobile Broadband connections grew by 100% year-on-year, crossing 400 million globally. The industry adds 17 million HSPA connections each month, compared to nearly 9 million a month in the same period last year, according to GSMA.

LTE will grow from 4.2 million in 24 countries by the end of 2011, to 300 million connections in 55 countries by 2015. LTE will experience significant growth from 2012, when operators start launching their Voice over LTE (VoLTE) services.

Over the past 12 months, operators have invested more than $70 billion in mobile broadband infrastructure and network upgrades, driving momentum for HSPA and paving the way for LTE.

What srives the semand?

According to GSMA, the mobile broadband growth is fuelled by demand for new devices, applications and services. Mobile broadband will offer socio-economic benefits, especially in countries lacking fixed-line broadband infrastructure. The huge investments in developing nations will empower education, improve health services, increase trade and drive innovation.

LTE is expected to out-perform fixed-line broadband networks by delivering fast, highly responsive connectivity with peak rate speeds of up to 100Mbps. However, the industry is still debating whether consumers in developing countries need such speeds for broadband connectivity. Most of the developing nations are focusing on achieving 100% mobile penetration, and broadband may not be a priority for them.

Spectrum debacle

Lack of spectrum is a major roadblock affecting developing nations in their path towards LTE. GSMA warned that governments should ensure that suitable spectrum is made available for LTE rollouts. If the governments can release LTE spectrum now, it will allow LTE to generate economies of scale, bringing down the cost of equipment and handsets. This will help consumers gain access to better broadband connectivity.

The spectrum best suited for LTE includes the 2.5-2.6 GHz band, which has been identified globally by the ITU as the '3G extension band', and 'digital dividend' spectrum in the 700-800 MHz band, which has been freed up from the switchover to digital television, according to GSMA.

Since LTE spectrum is not available, many operators will use HSPA as their primary mobile broadband technology. 341 live HSPA networks across 132 countries have more than 2,900 devices from 200 suppliers worldwide.

The Asian shift

It seems the global recession did not affect many telecom service providers in Asia. Most of them have continued to expand their geographical reach during the slowdown. The appetite was evident when SK Telecom, the number one mobile operator in Korea, announced that it will triple its broadband capacity and offer five times faster data download and seven times faster upload speeds from July 2011.

The Korean operator has partnered with Nokia Siemens Networks to provide LTE infrastructure. SK Telecom will use Nokia Siemens' Flexi Multiradio Base Stations and the NetAct network management system as well as implementation and care services.

LTE is making inroads into several Asian countries following its earlier trials in Europe. Speed is one of the major demands of users. SK Telecom will introduce LTE services in Seoul in July 2011. SK Telecom will expand its LTE network coverage to other metropolitan areas by the end of 2012. Nationwide coverage is expected by the end of 2013.

COVER STORY

Mobile broadband will offer socio-economic benefits, especially in countries lacking fixed-line broadband infrastructure. The huge investments in developing nations will empower education, improve health services, increase trade and drive innovation.

Asia is also becoming a major destination for operators' subscriber additions. The Telenor Group announced that it has passed more than 100 million subscribers in Asia. This milestone marks another significant achievement in Telenor Group's successful history in the region.

"With more than 100 million subscribers in Asia, Telenor Group continues to develop and reinforce its position as a leading pan-Asian provider of telecommunication services. This position is based on a long-term industrial commitment, a strong customer focus and a fundamental belief that the mobile phone would benefit emerging economies as a vital tool in improving quality of life in the region," said Sigve Brekke, executive vice president of Telenor Group, and head of Telenor Group's Asian Operations.

With the two fastest-growing telecom markets in the world – India and China – the Asian continent is attracting big operators worldwide. Telenor Group entered Asia in 1996, and has since emerged as a leading regional mobile operator. At the end of 2010, Telenor Group's five Asian operations were generating 39% of the group's total revenues and obtained an operating cash flow above NOK 10 billion. In subscriber growth Telenor Group added more than 23 million subscribers in Asia in 2010.

Today Telenor Group controls mobile operations in 5 Asian markets with Grameenphone in Bangladesh, Uninor in India, dtac in Thailand, DiGi in Malaysia and Telenor in Pakistan. For almost 15 years Telenor has been driving service innovation and customer experience in the mobile sector in Asia. Telenor Group's unique segmentation and distribution platforms have become a competitive advantage, enabling its local operations to connect millions of previously unconnected people with basic mobile phone services.

Innovation thrust

Innovation was at its peak at the Mobile World Congress. The event provided a platform for leading vendors to come out with innovative technologies. Semiconductor major Freescale unveiled the QorIQ Converge, which is a highly integrated base station-on-chip portfolio built on advanced heterogeneous multicore technology, which can support all wireless telecom services.

QorIQ Converge is the first Comprehensive Portfolio of Multimode Solutions, which will support voice centric to data telecom services (including 4G). QorIQ Converge will enable higher performance, lower cost, and improved power efficiency.

As a result of QorIQ Converge, small cell sites will help bolster the mobile broadband network. These sites will feature equipment small enough to be deployed anywhere easily.

Freescale's system-on-chip (SoC) supports anywhere between 8 and 64 multimode (WCDMA, LTE) users depending on the configuration, while innovative QorIQ Qonverge platform provides integration, performance, energy efficiency and unmatched scalability.

Alcatel-Lucent's small cells

Alcatel-Lucent introduced its 3G small cells approach for indoor and outdoor high-traffic areas such as shopping malls, airports and railway stations, and the second generation of its 9362 Enterprise Cell. Alcatel-Lucent also unveiled its concept for the 9361 Home Cell X-Series. As per the new concept, the compact range of USB-powered small cells will deliver high-capacity data and crystal-clear voice for up to eight users simultaneously.

The company's ongoing small cells innovations are crucial to the creation of this new, more powerful mobile network architecture – bringing major coverage, capacity and services benefits to service providers and subscribers alike.

Alcatel-Lucent's 9363 and 9364 Metro Cells extend 3G wireless coverage and capacity to high-traffic public spaces, indoors and outdoors. These Metro Cells will function in shopping malls, hotel lobbies or airports, and open up the networking possibilities in remote locations.

The plug-and-play and self-organizing networks (SON) capabilities combine with macro-like, real-time management enable operators for easy deployment and control. Operational expenses for operators will be under control. Service providers can use these Metro Cells to offer outstanding performance in public spaces, at a lower operational expense.

Qualcomm's FlashLinq

Qualcomm, one of the major telecom innovators in the world, demonstrated its latest advancement in peer-to-peer wireless technology. Qualcomm's technology innovation – FlashLinq – will allow devices to discover each other automatically. The innovation enables mobile devices to communicate, peer-to-peer, at high broadband speeds and without any intermediary infrastructure.

FlashLinq advances proximal communications. The enhancement allows mobile consumers to connect, disconnect and communicate directly with other mobile users at broadband speeds. The innovative technology is expected to complement traditional cellular-based services and serve as a scalable platform for new types of applications.

"By expanding the operator model of managed services to the frontier of proximal communications, Qualcomm continues to demonstrate its leadership in wireless technology and innovation," said Ed Knapp, senior vice president of business development and engineering for Qualcomm.

VoLTE from Ericsson

With the Voice over LTE (VoLTE), network operators will have the ability to offer enhanced voice services on LTE networks around the globe. VoLTE enables customers to enjoy additional mobile services such as presence, video and chat. The new benefits can be available from any device, location or service provider in both mobile and fixed broadband data networks.

At Barcelona, Verizon Wireless and Samsung made one of the world's first LTE voice calls over a smartphone with an IMS client for Voice over LTE (VoLTE) according to GSMA specifications. The companies accomplished this over Ericsson's LTE demonstration network based on commercial products and using Samsung's 4G LTE smartphone, which will be available through Verizon Wireless in the United States later this year.

"Verizon Wireless has always been an innovator in the technology industry, and VoLTE is the most recent example," said Tony Melone, chief technology officer, Verizon. "We expect to have commercial VoLTE services available in 2012."

"Samsung is proud to have played a key role in today's successful trial and demonstration of the power, speed and connectivity of voice over LTE communications," said Tom Jasny, vice president of 4G and mobile broadband for Samsung Mobile.

LG Optimus 3D

Offering the world's first full mobile 3D experience, LG presented the LG Optimus 3D smartphone, featuring innovative technology, to be rolled out globally starting in Europe in the second quarter. The presentation speaks to the industry's newest hot ticket—3D. Several exhibitors demonstrated cool 3D technology for wireless,

Continued on Page 15

Sandeep Singh | Dreamstime.com

Millennium Development Goals for the Asia-Pacific Region - Combating Hunger

How to Minimize Hunger in the APAC Region

BY YASHIKA DHINGRA

The Asia Pacific region is today a region of two extremes.

At one end are rich countries with abundant resources or the resourcefulness to become rich (a glaring example being Japan). At the other end are poor land-locked countries that lack visionary political willpower and a lack of direction towards achieving better economic growth. Caught between the two extremes are several countries that have episodes of poverty and stunted growth.

Thus the path-breaking Millennium Declaration of September 2000 at the seminal Millennium Development Goal (MDG) chose the goal of reducing by half the occurrence of poverty and hunger in the APAC region. Other smaller goals that would eventually lead to the achievement of this main goal will require a multiple approach methodology.

The ground reality in the region

In the Asia Pacific region today, some 900 million people are in extreme poverty. One out of six people suffers from malnourishment, while one in three are underweight. The figures become skewed in South Asia and Southeast Asia. In all probability, the goal of eradicating child hunger is not likely to be achieved. Even successfully addressing the problem of undernourishment might prove an unachievable goal.

Probably the most effective and easiest approach is for local governments to prioritize and scale up domestic priorities, focusing on poverty and hunger eradication as the first step to achieve economic growth.

Innovative approaches that would help in achieving the goals

Probably the most effective and easiest approach is for local governments to prioritize and scale up domestic priorities, focusing on poverty and hunger eradication as the first step to achieve economic growth. Required prioritization includes setting up necessary funds to implement programs consistent with the Millennium Development Goal. An innovative approach would be assigning government executives who would deliver the necessary knowledge for those below the poverty line to understand the importance of nutrition and micronutrients.

Approaches need to be applicable to the ground realities of the region or area. In the land locked nations, natural resources are abundant, but the driving forces necessary to exploit those beyond the mere export of raw materials is the key to development. Regular employment will show a steady increase in income which will translate into better nutritional patterns for children and working adults.

Approaches such as focusing only on hunger hotspots are scalable, achievable goals. There are several degrees of poverty and hunger amongst the different nations of the region. Hence, the middle-income group of nations can fund their own hunger programs. Meanwhile, the poorer and isolated nations should accept international funding and hunger eradication programs to fast track their goal of halving the hunger driven population in their countries.

The Millennium Development Goals could well elude the region on the present statistics. However, what it will achieve is the creation of small achievable targets of empowering regions and sub-regions to gain economic growth and development, as well as a nutritional increase in the food they eat. This would represent a realizable 'best outcome' of a very ambitious and noble goal. Sustained development has long been the historic economic plan in the Asia-Pacific region countries. Setting the hungry and poverty-stricken nations of this region on the path of sustainable growth within the framework of the ecosystems they belong to will help in the complete eradication of hunger in the following decade. A-P

Q&A Business Leader of the Month: Peter Cohan

BY VICTOR FIC

Giving Boeing Its Wings Again

Expert Peter Cohan Relates How the Troubled Aircraft Maker Took Off

How did Boeing find itself on the edge of doom?

When Jim McNerney started at Boeing in July 2005, the company had just lost its second CEO in a row due to ethical lapses. The first was allegedly responsible for an effort to trade a government official's family a job in exchange for awarding Boeing a government contract. Boeing faced fines and penalties of $1 billion related to the government contract scandal. His successor was supposed to clean up but was tossed out after an affair with a Boeing VP.

Peter, what do you meant that "you cannot order change?"

McNerney said that when he started at 3M as CEO in 2000. He must develop a shared vision between the CEO and the company – what the organization ought to look like – and then gradually bring in the others. If you order people to accept that vision, you will fail because people will try to undermine it.

Did you have access to McNerney for the book and other Boeing people?

Boeing did not give me any access despite months of effort. Fortunately, I had the benefit of insights from many people who had worked with McNerney directly and others who had spent decades in the industry.

You document that 15 Boeing executives fled, but that McNerney succeeded because he is a genius at motivating and managing people. What specifically can we draw from this?

Thanks to his broad general management experience, Jim McNerney has developed and tested his management techniques in many industries facing a range of challenges. Of these 10 leadership challenges, three pertain to managing people, and here is how McNerney overcomes them:

- How does a leader unlock individual achievement? McNerney's goal is making each individual 15 %better. Rather than hogging all the attention, he develops leaders. He works with people to define the behaviors he expects in a leader. He opens the flow of communication up and down the line and removes barriers that inhibit cooperation. He removes people who inhibit the development of others in order to boost their own careers. McNerney's goal is to build a deep bench of leaders.
- How can a leader spur groups to work together for the greater corporate good? Many organizations foster competition among different groups for scarce resources such as capital and higher positions on the corporate ladder. But McNerney works with groups to find goals that spur them to cooperate, not compete. His strategies remove obstacles that keep groups from cooperating to implement the strategies.
- How can a company pay its leaders to boost long-term value rather than short-term stock price? While paying leaders to boost stock price is a popular fad, instead McNerney pays leaders to reach financial goals that increase the firm's long-term value. He links leaders' pay to the generating of profits that exceed the cost of capital needed to finance the value-seeking investment. This has two benefits: first, it makes people focus on factors that they can control; second, it removes any incentive to manipulate investment spending to meet short-term profit targets.

You insist that this will squeeze 15% more out of workers – is that an overstatement?

It's not an over-statement but it is an unmeasurable stretch goal. Yet I agree with your premise of how can you offer such a precise number? First, I must clarify that McNerney's goal is to make his people 15% better yearly, not to squeeze 15% more out of workers every year. That's an important distinction because getting better does not necessarily mean doing more work for the same pay.

Also, McNerney focuses on people who have the potential to change due to their openness, courage and teamwork. And he removes the bureaucratic obstacles that keep them from "igniting." To get there, he encourages the flow of information up and down the line. He breaks down barriers that isolate functions, gets phenomenally talented assholes out of the line, and invests in leadership development.

McNerney is trying to get people to think about their work in the context of the organization's stakeholders – e.g., their customers, their suppliers, their co-workers and their bosses. He wants them to understand what stakeholders' expect and strive to do a better job of meeting their evolving expectations. Through that 15% number, McNerney suggests that people should stretch themselves beyond their comfort zone.

And this pressure has many benefits. For instance, it keeps them communicating with their stakeholders, it forces them to confront feedback on what works and/or needs improvement, it drives them to see where those relationships are heading and to anticipate change and it wards off complacency.

Another of your lessons is to link pay to profit outright and to process, not to stock prices -- meaning?

The basic idea is that linking pay to stock price motivates short term manipulation of the company's financial statements. Pushing hard to close deals at the end of the quarter, cutting R&D expenses to boost profits or buying back shares to boost earnings per share may help a company meet or exceed Wall Street expectations. And that's important to stock price because missing expectations or lowering growth projections will almost certainly cause a company's stock price to collapse. Whereas beating expectations and raising growth projections will drive a stock price spike.

But McNerney wants to avoid such short-term decision-making. He favors managers who think about long-term shareholder value creation. Such long-term thinking measures decisions by comparing the cost of capital in an investment – such as building a new aircraft – to the cash flows that this investment will ultimately generate. If that investment's rate of return exceeds the cost of capital, McNerney wants his managers to make that investment. This may hurt short-term results, but in McNerney's view, such strategic decisions will boost the long-term value of the company.

Peter, you want managers to "lead to higher ground," – a generalized cliché. Give our readers concrete ideas.

McNerney finds common aims for groups both inside and outside the company that have traditionally competed with each other. For example, he will take a team of people from different functions and say, "Here are 10 possible strategies. We're not leaving this room until we all agree on which one we're going to follow." Then McNerney gives people the authority to exercise their intellectual freedom. He encourages them to speak their minds. He demands debate. He lets them express their opinions without fear of retaliation. When the team implements the strategy, it does so with enthusiasm because it feels ownership.

You praise Boeing for focusing on strengths...such as?

For example, he [McNerney] will take a team of people from different functions and say, "Here are 10 possible strategies. We're not leaving this room until we all agree on which one we're going to follow."

When McNerney was a director of Boeing in 2003, two years before signing on as CEO, he pushed Boeing's board to invest what ultimately amounted to $10 billion in a new aircraft – the 787 Dreamliner – a 250- to 330-seat aircraft made of composite material. Here he overcame the objection of two other board members who wanted to keep the cash in Boeing's coffers. McNerney won the argument because Boeing's future depended on it. The investment bolstered Boeing's ability to win a big share of a 3,000 aircraft mid-range market segment. It built on Boeing's strengths in design, systems integration, and support. And it took advantage of competitor Airbus's internal rivalries to garner a five year time-to-market lead with a technologically superior aircraft. As we'll see, the 787 has run into numerous production problems, but it generated a big backlog of 847 aircraft valued at $150 billion.

Most companies seek growth, and you advocate that they do so through people, not wheeling and dealing. How to achieve the former and why neglect the latter?

McNerney believes that organic growth that stems from a company's existing products and people is more profitable than growth through acquisitions of unrelated businesses. He encourages organic growth by selling products developed domestically into new international markets; by changing an organization's structure from a product to a customer focus; and by encouraging different business units to cooperate so they can gain share in developing markets. McNerney does not shun all acquisitions though. He does deals that add to already successful business lines.

Most acquisitions fail because they're driven by management ego rather than a rational analysis of how the deal will help the company better create customer value. Such ego-driven deals generally involve over-paying, which makes it far more difficult for the acquirer to earn back the price premium via post-merger profit increases.

Your call to partner with global suppliers will excite our international readers. But why do this?

McNerney oversaw the outsourcing of a record 70 % of work on the 787 to more than 50 suppliers working 24 hours a day at 135 sites on four continents designing and building parts. The 787 outsourcing was unusual for Boeing. It had traditionally maintained tight control of design and just outsourced manufacturing. But with the 787, Boeing outsourced the design and the manufacturing. The reason was it would shift the costs of development to suppliers and give Boeing access to the world's best suppliers for each component. But it meant big problems. The first aircraft delivery is three years behind schedule because Boeing was too trusting that its suppliers would honor the schedule. Boeing was surprised because it was not monitoring its suppliers closely enough.

Boeing was mired in ethical scandals. But you say that ethics should be a competitive advantage...how to achieve that?

McNerney took over Boeing when its many ethical problems cost it a huge Air Force contract and several top executives. He settled with the government, which had sued Boeing, and paid a fine exceeding $600 million. Through a change in Boeing's values, a reward system that boosts the careers of those who get results the right way, and a centralized organization charged with surfacing ethical problems early, McNerney has drained Boeing's ethical quagmire. If a company operates ethically, it doesn't need to worry if its employees will get into trouble. This makes time to focus on outperforming competitors in creating value for the company's customers.

You advise managers to determine if ethical lapses are isolated or systemic and whether they can be cleaned up in house. Tell us how to operationalize these ideas.

Here's how McNerney created an ethical culture at Boeing:

- Directly addressed source of ethical problems in company culture
- Added ethical conduct to explicit values
- Required leaders to model ethical behavior
- Opened channels to discuss ethical and business problems
- Linked promotion and pay to ethical conduct
- Looked for ethics problems before they surfaced.

Why has the 787 been delayed and what does this tell us about Boeing's strategy of partnering with suppliers?

In January 2011, Boeing announced yet another delay - then the seventh – in the delivery schedule for its first 787 Dreamliner. The initial delivery is at least three years later than planned. This raises important questions for an old management practice – outsourcing. Specifically, did Boeing outsource too much in other countries? Will the outsourcing problems persist? And what might this mean for airlines, passengers and investors in Boeing stock? The short answers are yes, probably, and it's too early to tell.

The latest announced delay is no surprise after a 787 test flight in Laredo, Texas, suffered an electrical fire in November 2010. In January, Boeing said it planned to deliver its first aircraft in the third quarter of 2011 – six months later than expected. The airline that's supposed to get that, Japan's ANA, says it's glad about the new schedule and is adjusting by keeping its old aircraft flying.

Boeing claims that the latest delay won't have any financial implications for the 787. But I note that that at $12 billion, the cost of developing the 787 is now 120% higher than Boeing's original budget.

The causes of many delays included a strike, but also derive from two problems. First, Boeing outsourced both the design and the manufacturing of the 787 to shift the economic risk onto those suppliers. Previously, Boeing had outsourced only the manufacturing and maintained tight control over the design – providing suppliers with extremely detailed component specifications. But by outsourcing both the design and the manufacturing, Boeing lost control of the development process.

Second, Boeing had never before built an aircraft with composite materials. It had previously used aluminum – whose behavior in the real world is much better understood. Unfortunately, due to a lack

Continued on Page 21

Liouyuyaho | Dreamstime.com

Shanghai Airports:

Serving a Bustling and Dynamic City

BY KEVIN LIU

The emergence of world-class Shanghai airports in the busiest and most dynamic transport hub in eastern China is only fitting to Shanghai's continuous development not only in infrastructure but as one of the most important business and financial centers in China and in the world.

These airports have made the city more accessible to local and international travelers, adding to the already established links of the city to major commercial and business areas in China as well as from other destinations in Asia and other major cities in the world.

Serving local and international travelers

As a major commercial and business hub in China, Shanghai is served by two modern international airports with state-of-the-art facilities and equipment. These airports service more than a thousand flights from domestic and international destinations, including major cities in China and the rest of the world.

First in the list is the Honggiao International Airport, the first civilian airport in China which has been giving service to the public for more that eighty years. With two major terminals spread across 20 acres of land, the airport boasts first class facilities, communications equipment, and landing/take-off capabilities that can handle all types of airplanes in the world.

Following on its heels is the Pudong International Airport, the newest international airport in China that handles the third highest air traffic volume in China after Beijing and Hong Kong. Pudong handles most of the international traffic to and from Shanghai, while Honggiao mainly serves domestic routes and selected international flights to other Asian cities.

Longhua Airport, which served as the main airport in Shanghai until the 1950's when Honggiao airport was opened to the public, is now one of two Shanghai general aviation airports that are used for pilot training and as an emergency landing facility for local authorities and rescue services.

Leading edge technologies used in Shanghai airports

Shanghai is emerging as one of China's most dynamic cities with impressive infrastructures on the rise as well as the bustle of economic activity conducted within the city from local and international quarters. In this regard, it is apt that international airports serving the city utilize leading edge technologies to better serve travelers.

This can be noted in the efficient architectural design in these major airports as well as the state-of-the-art baggage handling and sorting system that ranks on par with the best in the world. These sorters utilize modern computer systems and control technologies, making baggage to passenger reconciliation faster and more accurate.

These airports also feature secure e-commerce facilities making online bookings possible - a first in China. Utilizing software adapted from international providers, these online booking and payment systems placed these airports in line with international standards.

Shanghai is the fastest growing economic and business portal in China, providing big opportunities to further economic development for this nation. Infrastructure developments, globalization of systems and policies, as well as upgrades in facilities and quality of services in public amenities such as those seen in Shanghai airports are helping to prepare a new era of development for this city. A-P

Ivan Cholakov | Dreamstime.com

Eastern Germany Strengthens Business Ties with Asia

BY ANURAG AGNIHOTRI

Asian investors are currently eyeing Germany's eastern high-tech regions, as the country has unveiled a brand new airport to facilitate trade between the two regions.

Once the new facility becomes operational from June 2012, it will provide increased capacity and decreased travel times to Asian destinations.

Indian investors in New Delhi will receive a preview of the Berlin Brandenburg International Airport (BBI) on February 22, 2011. Construction is now in full swing for the BBI, which is touted to have a capacity of 27 million passengers when it opens. The airport will also include an expansion option to handle up to 45 million passengers annually.

Eastern Germany is known for its numerous future-related industries, including renewable energy, semiconductor, and automotive industries. "Berlin Brandenburg International Airport strengthens Eastern Germany's attractiveness as a high-tech business location," said Michael Pfeiffer, chief executive of Germany Trade & Invest. "The airport further improves the already excellent infrastructure in the region and adds a new modern gateway to the entire world."

Indian FDI stocks in Germany have nearly quadrupled since 2005, according to a release, and about half of all new investment projects are in the information technology (IT) industry, including software and communications.

In the coming days Germany Trade & Invest will conduct several road shows in Asia in cities including Pune, Kuala Lumpur, Malaysia, and Beijing. A-P

China's Stranglehold on Rare Earth Ores - The Repercussions

BY RASHMI GUPTA

Rare Earth Elements – REEs – are making headlines of late, and for all the wrong reasons.

Even a year ago discussion of rare earth elements remained confined mostly to academic and technical discussions among manufacturers of sophisticated devices such as cell phones and laptops. REEs are also used in the manufacture of cruise missiles, precision guided missiles, reactive armor as well as radar systems. And they are also the driving force behind most green technologies today. The most important civilian applications for rare earth elements are for use are in wind powered turbines as well as plug-in hybrid vehicles. Oil refiners use rare earth materials as catalysts.

What are rare earth elements?

Rare Earth Elements are elements with atomic number 51 to 75 on the Periodic table and known generically as Lanthanides. Scientifically all rare earth elements are classified into two categories, namely, light rare earths and heavy rare earths.

The first category includes lanthanum, cerium, praseodymium, neodymium and samarium, and they are available more abundantly. The second category comprises the heavy rare earth elements of atomic numbers 64-71 and yttrium. However, these are quite rare, and are used only in very sophisticated and high end applications such as Erbium for fiber optics and communication hardware. Europium and Terbium work as phosphors and Gadolinium is used in MRI devices.

Why are they so important?

Rare Earth elements are ideally used in critical sectors as well as in every electronic gadget we use in our everyday lives. Therefore, the requirements for these elements are insatiable. These are abundantly available on the entire earth's surface but in negligible quantities. They are also present in different percentages in minerals, and extractions from these sources are intensive and very expensive. On the surface of the earth, Bastnaesite is one of the primary minerals in which the more useful light earth elements are available in appreciable quantities in China and the US. Another popular mineral source is monazite and this is found abundantly in S.E. Asia, Brazil and India. However the percentage of rare earth elements gained from secondary sources is almost negligible.

Why is Chinese rare earth important?

China has 97% of the most valuable REEs and is with each year lowering the percentage it releases while increasing its own consumption. Most countries are rankled by the economic embargo that gives China a political upper hand in the global Balance of Power. The global demand is expected to soon reach 200,000 tons per year. In 2008, China produced 139,000 tons only. Japan has been the most affected but it has been shopping around for alternative sources and has found effective resources in Australia. The U.S. is also leveraging its own stocks but wants to buy more from China.

Currently, this all benefits China, as it refuses to release further REEs, thereby creating an artificial demand and supply mismatch. The repercussions are multifold, with the most important being economic monopoly with the aim of gaining wrongfully at the cost of development of other countries, especially Japan. A-P

Continued from Page 9

including Innanosys, offering a compact full 3D camera module for handhelds and Israel's Comodo Console, specifically designed for the car with 3D graphics.

The Mobile World at Barcelona

The GSM reported record attendance for the mobile industry's largest event, with more than 60,000 visitors from 200 countries, including more than 3,000 CEOs. The record attendance to this year's Mobile World Congress is an indication of the importance of innovation in technology and telecommunications for the sector. Mobile will continue to transform the way the world communicates, how business is conducted and how people live their lives.

BRIEF

Telecom innovations were at its peak at the Mobile World Congress. Many companies exhibited their innovative products and services at the event. Mobile broadband fuelled by LTE / 4G will be the thrust area for telecom operators in coming months. Tablets and hi-end devices will find space in the pockets of more consumers. Despite recession, Asia attracted huge investments in telecom networks. A-P

COMPANIES MENTIONED IN THE ARTICLE:

- Qualcomm
- SK Telecom
- Alcatel-Lucent
- Verizon
- Telenor
- Freescale
- LG
- Samsung
- Nokia Siemens Networks
- GSMA

Jacetan | Dreamstime.com

Online Shopping Malls in Korea

BY NICOLAS LEE

The online shopping mall has become a major market for Korean customers. They sell more goods than department stores or malls, as their easy accessibility and affordable prices compare favorably with offline stores.

This is quite remarkable if we think about the fact that the history of online shopping is very short; indeed, it has been just fifteen years since the very beginning of it all. In 1996, Interpark and Lotte online shopping mall started this new business. Five years later in 2001, the market size was just above 3 trillion Korean won. With 20% annual growth every year since, the overall market size is now slightly over 34 trillion Korean won.

There are many kinds of online shopping malls. The first kind is a "general mall" where one can purchase practically anything. For examples include Interpark, D&Shop, Lotte.com and CJ Mall in the Korean market. The second kind, the "professional mall", sells specific goods in certain areas such as printed materials like books, magazines, CDs and so forth. Aladin, the Kyobo online store and Yes24 are examples of this second type. Lastly, there are "open markets" where anyone can purchase and/or sell their items. These are similar to flea markets except that business is conducted online. G Market, Auction and 11th Street are examples of this type of online shopping mall.

There are several major competitive issues for online shopping mall businesses. One is that offline enterprises are entering into the online business. The other is that social networking sites (SNS) are more and more involved with selling goods online as well. In the future, an increasing number of "smart phone" users in Korea will enter this market via that device, as well, both as buyers and sellers. With an anticipated market size of 40 trillion won in 2011 and 48 trillion won in 2012, it is safe to assume that the online shopping mall industry isn't simply a passing fad or a boom. Growth is expected to be steady every year.

This growth is especially true for fashion brands, which need very intensive communication efforts for their brands. SNS and other Internet networking can be very cost-effective communication channels. It's less expensive than conventional communication methods and it updates in real-time, so that brands can react to their customers' feedback very quickly.

Online stores used to be considered as cheap and low-quality consumer product markets because of the uncertainty of quality, size and delivery. However, thanks to high-speed Internet networks, sellers upload more product images and information on their websites, and the use of secured payment systems such as Paypal have enabled very fast growth for these increasingly important markets. That's why even Louis Vuitton launched their own online store as well.

According to the Korean Statistical Information Service, in 2005 the market size of fashion products transactions online was about 96 billion KRW, but in 2010 it grew to 460 billion KRW, almost doubling every year. Newly launched brands often sell their products online internationally. Even if they don't have a international distributor, they can access to their customers directly via Internet.

Internet marketing can be a very interesting and effective approach towards international markets for major fashion companies. What's new and interesting, though, is that this approach is also effective for those small, new, up-and-coming brands that have strong brand images as well. I will try to identify some of these for you throughout this year.

VAGX (www.vagx.co.kr) is a bike messenger bag brand made by Korean fixed gear riders. Their marketing on the Internet is a good example of the above. They promote themselves by sending their products to power bloggers. Since the fixed gear scene is very new, many people are relying on social network services to share their riding skills and product information. They update their news almost everyday and the network is very fast and international. When a new product is launched in London, the next day it's updated on Japanese or Korean blogs. With these powerful networks, VAGX achieved quite large sales figures internationally through the Internet. If you check their site, even though it's a Korean brand, you can hardly find a Korean word. You can find their products in London, Paris, New York and Tokyo as well as Korea. Their promotion is quite successful, especially considering their small outlays in comparison with others.

Surprisingly, VAGX is simply 6 people working in a small-scale company. A-P

Journey of Online Shopping in Asia-Pacific

BY MEENAKSHI KRISHNAN

Order, click and collect – online shopping is gaining increasing popularity, offering customers with enticing experience.

The world is drastically moving towards an era of online dependency. Within this global trend, online shopping is definitely picking its pace, particularly in the Asia-Pacific region. Penetration of broadband Internet, lifestyle changes, increasing income levels and elevating cultural factors are some of the reasons.

Up until a few years ago, Indians were conservative in their approach to shopping, yet online shopping there is fast evolving and no doubt has great potential in the future. Numerous companies are creating simple tools that can streamline the experience and eliminate some of the difficulties consumers face in the process.

A recent survey conducted by Visa shows all the consumers from the six fastest growing e-commerce markets in the Asia-Pacific area are keen on online shopping, and around 87% of them said they had purchased products or services online last year, spending an average of nearly 2,100 U.S. dollars in the process. A total of nearly 3,200 Internet users from the Chinese mainland, India, Indonesia, Malaysia, Taiwan and Thailand took the survey, which revealed online shopping habits and influential actors. The survey shows online shopping is especially popular among respondents from the Chinese mainland and Taiwan.

Reports also indicate that the online shoppers in this region spend most on tourism, including booking air tickets and hotels and travel. Other major spending areas are stock brokers and trading, electronics and appliance products, banking and financial services, as well as computer hardware.

Online shopping has many advantages and disadvantages compared to traditional retail shopping. Most online retailers use shopping carts to allow shoppers to add multiple items, and they are allowed to pay via several methods which is very similar to traditional retail shopping.

Some of the disadvantages for online shoppers are that once the product is identified and added in the cart and the payment made, the product delivery is done only through shipping or via in-store pick-up. This often ends up in significant delays for the retail shoppers. Security concern is another significant disadvantage, but this is currently being addressed by some of the major credit card companies. Visa launched Rightcliq, an online shopping tool that improves the way consumers browse and compare products, checkout on merchant websites, and track packages to their doorstep.

Another disadvantage is that in the act of 'regular' shopping, consumers are often assisted by shop employees, whereas for online shoppers, they are merely given phone numbers to contact for any further details or required assistance. Also, if the product information is not sufficiently provided and the photograph of the product is not up to satisfying standards, consumers may fail to choose the product, which is not in the case of physical shopping where customers see the product directly before making the purchase.

Key advantages of online shopping include the fact that consumers can access these stores round the clock, even on public or declared holidays, and they have the choice to sit conveniently at their home and do the shopping. This eventually helps them in avoiding time and money on parking, fuel expense, and perhaps more importantly, it helps them in reducing carbon output. Also, searching and browsing products is much simpler in the online shopping process compared to traditional retail shopping. Moreover, there is the facility to compare prices between different stores quickly and easily.

"Any organization offering a consumer product or service in today's marketplace is open to scrutiny from every angle, and it is critical that these organizations not only understand those consumers, but effectively engage and communicate with them," advises Megan Clarken, Asia Pacific managing director of Nielsen's online division.

Consumers are also increasingly becoming aware about the possibility of returning goods, if they are not satisfied with the product. A few years back, customers were exposed to the less popular tele-shopping method which dealt in a limited range of products. Then came the culture of malls, where all the products were made available under one roof at a competitive price package. Nowadays, the era of virtual malls (online shopping) is starting to grow exponentially. Some of the initial takers on this market in India were eBay, Rediff shopping and futurebazaar.com.

Retail is one of the fastest developing sectors in India, with new players and new malls flourishing every day. A press release from the marketing and consumer information company said that more than a quarter of the consumers surveyed indicate they spend over 11 per cent of their monthly shopping expenditure on online purchases. The report also found that Asia-Pacific

A Few Tips for Safe Online Shopping

> Carry out your transactions from a secured PC

> Be well-versed with the website you use

> Never give away your personal information

> Go through the privacy policy of the company

> Paying by credit card is wiser

> Make sure that the transactions are secured, and that the shipping policy of the company is in place.

> Consider not only the actual price of the item, but also the shipping charges, handling fees and sales tax.

> Make sure that you keep the printouts of all online transaction records, which you can eventually use as proof of purchase if necessary.

Jacetan | Dreamstime.com

consumers spend the most on online purchases as a percentage of total shopping expenditure compared to any other region globally.

Indians are fast getting used to this very simple and easy way to buy a lot of products. Thousands of websites related to online shopping in India have been designed to fulfill the needs of different customers. With advancements in science and technology, almost everything is going online, including shopping malls. Growth in this industry shows no sign of slowing down in the future, according to research, with an estimated 63% of all Internet users already purchasing products online. Further, as banks continue to increase the security of personal and credit information, more people are becoming less doubtful of the practice. Experts predict that the future of online shopping rests on user-experience and as this grows, consumers will also share their experiences with others, contributing to further growth in the industry.

According to an India Online Landscape Report from 2010, Internet usage and penetration in India was indicated at 51 million individuals, out of which 40 million are from urban areas and 11 million from rural areas. Internet is said to have reached 10% of Indian households and 4.4% of Indians overall; 2/3rds of households have multiple users in them; 97% of these are regular users and 1 in 4 access the Internet on mobile phones, though most of them are 'dual' users (PC + Mobile). With reference to online shopping in India, the report indicates the online shopper base to have increased by 2.5 million (33% growth).

The India Online Landscape Report 2010 is recognized as the most recent and comprehensive estimates of Internet user-ship in urban and rural India. The estimates are based on a land survey conducted between Apr 2010–May 2010 among 259,341 individuals from 37,024 households in 100 cities and over 20,396 households in 1,040 villages spread across all the 4 regions of the country.

E-commerce is a fast-growing and changing trend. Making purchases on the Web is more convenient now than ever. With increasing consumer interest in online shopping, the amount of trade that is conducted electronically has seen extraordinary growth. According to MasterCard's 'Latest Insights Report, Online Shopping in Asia Pacific - Patterns, Trends and Future Growth', this growth is poised to further accelerate in the region and is expected to increase at an annual rate of 23.3%, reaching US$168.7 billion by 2011.

Also, the rising population segment of upper-middle-income earners is likely to boost the online shopping markets in China and India significantly. Domestic consumption spending in the two countries is poised to pick up strongly, which is interconnected with the rise of urbanization, robust economic expansion and improving spending force. From the convenience of one's own home, one can shop from a variety of products available in a variety of choices, from home furniture to personal care products, from mp3 players to biscuits.

Why not just browse and have fun in shopping online… A-P

Barun Patro | Dreamstime.com

Korea's POSCO Gets Green Light to Operate in Orissa, India

BY ANSHU SHRIVASTAVA

In January, Korean steel giant POSCO finally received the green light from the Ministry of Environment & Forests (MoEF) of the Government of India (GOI), for the $12 billion project in Orissa – the state which is located on the east coast of India.

The project is comprised of a steel plant, a captive port and a minor port. However, the clearance for this project comes with several new riders, directing the company to meet a series of environmental standards.

Union Minister for Environment & Forests, Jairam Ramesh, said in an order that environmental clearance for the steel-cum-captive power plant is being accorded with 32 additional conditions, over and above [those] stipulated in the original environmental clearance of July 19, 2007.

The additional conditions for the steel-cum-captive power plant ask the company to carry out sustainability study of water requirement for the plant by an institute of repute; forgo the water intake in case there is a shortfall of water at the Jobra Barrage for irrigation purposes; and ensure that the total green area within the plant is 25% of its area as per the guidelines of the Central Pollution Control Board (CPCB). In addition to fulfilling the Resettlement and Rehabilitation (R&R) obligations mandated by the state government's package and implementing corporate social responsibility (CSR)-related programmes in the construction phase, the company now also has to devote 2% of net annual profit to CSR in the region where the project is located.

For the captive port, the company has been barred from undertaking any construction work in the 'high erosion' zone. Also as per the 32 additional conditions, the company has to undertake shoreline protection measures to counter erosion in the northern side of North Breakwater, and submit detailed Marine Environment Conservation Plan.

Jairam Ramesh also has sought a categorical assurance from the Orissa government that there was no violation of the Forest Rights Act in the land acquisition. Last year in August, he had directed the Orissa government to halt the land acquisition for the project. This directive was based on a ground report submitted by a three-member committee set up by the Environment and Tribal Affairs Ministries.

The seed for this much talked about project was sowed in June, 2005, when Pohang, South Korea-based Pohang Iron and Steel Company (POSCO) signed a memorandum of understanding (MoU) with the Government of Orissa for the construction of a steel plant, and also development of iron ore mines in the state. Later in August, 2007, the company incorporated its Indian subsidiary POSCO-India Private Limited with the Registrar of Companies, Orissa, under the Companies Act of 1956. The company had plans to build the plant in three phases by 2016. Originally, production was scheduled to begin by the end of 2011 after the completion of the first phase. The company says that the integrated steel plant will have a total capacity to produce 12 million tons per annum - with 4 million tons in the first phase.

Billed as the single largest foreign direct investment (FDI) in India, the project has still not been able to take off as it has been embroiled in one issue after another, including legal, logistical, procedural, and environmental. The locals fear that the project will render them landless and also snatch away their forest-based livelihoods. The proposed plant area will be spread over 1621 hectares of land, which includes nearly 1253 hectares of forest land. In June 2007, the Orissa government sought the permission of MoEF to offer forest land for the project. The ministry granted "in principle" permission on September 19, 2008 and with 13 conditions to be fulfilled.

Billed as the single largest foreign direct investment (FDI) in India, the project has still not been able to take off as it has been embroiled in one issue after another, including legal, logistical, procedural, and environmental.

The project received environment approvals in 2007, and in 2009, the mandatory forest clearance. But, social activists and environmental experts objected to the granting of these approvals, and staged a series of vocal protests against the project - as a result, Jairam Ramesh set up a four-member inquiry committee, which submitted two different reports after a review. The first report concluded that there is no need to cancel clearances, but the project proposal must carry out a comprehensive Environmental Impact Assessment (EIA). The other report suggested the cancellation of the Environmental Impact Assessment (EIA) and Coastal Regulation Zone (CRZ) clearances given to the proposal. Both the committees, however, agreed that provisions under the Forest Rights Act (FRA) need to be reexamined by the state government. Due to the split verdict, Jairam Ramesh constituted another expert panel to review whether the proposed steel plant could be given green clearance or not.

The POSCO project is seen as something of a test for India, and prospective investors are closely watching the proceedings to see how the country balances its ambitious economic and industrial growth plan with environmental concerns. Lately, the MoEF has been in the news for blocking several projects, citing environmental concerns, and the Minister has been accused of following an "anti-growth" agenda. In a bid to squash the growing criticism that his Ministry is anti-industry, Jairam Ramesh said that undoubtedly, "projects such as that of POSCO have considerable economic, technological and strategic significance for the country." He added that at the same time, "laws on environment and forests must be implemented seriously."

Foreign investors, Indian corporate houses and the government of Orissa have welcomed the central government's decision to clear the POSCO project. Reacting to the Ministry's order, Naveen Patnaik, chief minister of Orissa, said his government would study the conditions and see what could be done. "On the face of it, it seems to be good news." Raghunath Mohanty, steel and mines minister in the Orissa government, said that the implementation of the POSCO steel project would open a new chapter in the history of industrialization in the state.

Welcoming the decision of the MoEF, G.W. Sung, managing director at POSCO India, said that the company fully appreciates the concerns of different stakeholders on sustainability of environment as well as the livelihoods of affected people. He added that they are committed to taking sustainable green initiatives and effective measures for conserving the land and marine environment of the area, and also are committed to creating sustainable livelihood opportunities for the project-affected people through implementing R&R package sincerely.

The environment ministry approval for the project may have paved the way for the construction of the steel plant, but it still does not look like a smooth sailing for the world's third largest steelmaker. Social activists and environmental groups have slammed the decision. POSCO Pratirodh Sangram Samiti (PPSS), which has spearheaded anti-POSCO protests since 2005, has condemned the decision. "We will not give up our lands, our forests and our homes to this company. It is not the meaningless orders of a mercenary government that will decide this project's fate, but the tears and blood of our people," said Prashant Paikray, a spokesman for PPSS.

Abhay Sahu, president for PPSS, announced that the villagers who were not willing to part with their land for the steel project would intensify their agitation. Environmentalists are concerned that the steel plant locations are close to the breeding sites of the endangered Olive Ridley turtle. They believe that the water released from the plant could affect marine ecology and the livelihood of thousands of local fishermen. The National Fishworkers Forum (NFF) also came out against the project, and called the clearance a sell-out to economic interest at the cost of not only the environment but also the lives and livelihoods of the fishing community. India's main opposition party, Bhartiya Janta Party (BJP), has also criticized the Union Government for according conditional clearance to the POSCO project in Orissa and has demanded a CBI probe.

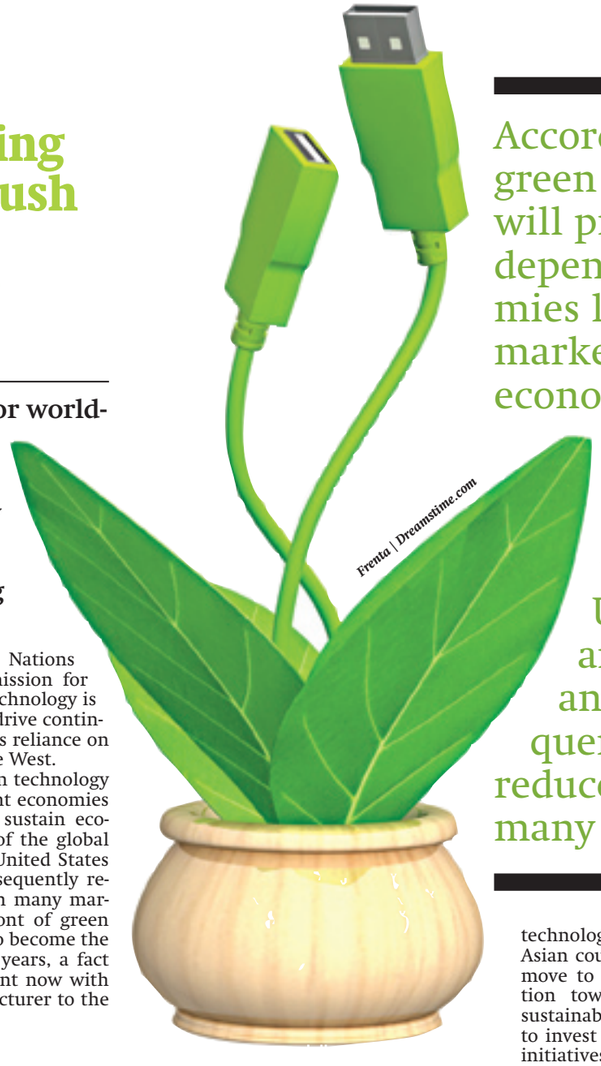
In addition to handling the protests and criticisms, the company still has several hurdles to cross before the plant starts production. Some of the upfront issues that need to be tackled by the company are the rehabitation of locals and the acquiring of mines - the government of Orissa has assured a mining lease for 600 million tonne

Continued on Page 39

China Leading the Asian Push into Green Technology

LYNETTE WU

The race is on for worldwide leadership in green technology, and China leads the way as it spearheads the Asian push and is now rapidly making its way to the top.



According to the United Nations Economic and Social Commission for Asia and the Pacific, green technology is set to be Asia's main fuel to drive continuous growth and to reduce its reliance on industries and markets in the West.

According to the UN, green technology will provide export-dependent economies like China new markets to sustain economic growth in the wake of the global financial crisis that hit the United States and Europe, and which subsequently resulted in reduced demand in many markets. China is at the forefront of green technology and is expected to become the top exporter in the coming years, a fact that has become more evident now with China's role as a top manufacturer to the world.

According to the UN, green technology will provide export-dependent economies like China new markets to sustain economic growth in the wake of the global financial crisis that hit the United States and Europe, and which subsequently resulted in reduced demand in many markets.

Chinese green technology initiatives

Since 2009, China has invested more than 34.6 billion dollars per year in green industry, an amount which is expected to grow in the coming years. According to the Center for American Progress, China spends approximately $12 million an hour on green technologies, 10 times more than American investments, making it the world's largest investor in this field.

These investment initiatives are spurred more out of necessity than anything else; particularly with regard to the critical environmental problems China is now facing. The so called "Green Wall of China" is China's massive effort to stem desertification in the hands of nearby Gobi Desert, and this includes creating a 2,800 km long forest strip along its borders which is expected to be completed by 2074.

At the forefront of China's green technology initiatives is its aggressive renewable energy production, with wind and solar energy at the helm. One of its leading wind energy firms, China Goldwind, recently launched a $917 million project, while solar module giant Chaori Solar initiated a $360 million project during the last quarter of last year. More and more renewable energy manufacturers and developers are expected to jump on the green tech bandwagon this year.

The aggressive move towards renewable energy production is a necessity for the country which is now faced with an imminent lack of oil, coal and other fossil-fuel resources. With a continuously growing population, millions of cars added each year, and doubling demands for electricity for use in its growing industries, relying on green technology is a desperate move for survival.

China's green technology initiatives have a positive economic side effect however, and are fueling huge profits for green tech companies which will eventually catapult China as the clean tech laboratory and manufacturer for the world. Solar panels and other green technology products are exported heavily and will eventually end up in homes, schools, and buildings in the West. The recent visit of China's Hu Jintao to the US sealed a $45 billion export deal which focuses on cleantech solutions and green technologies.

The future of green technology in China and the APAC region

The United Nations has praised green technology efforts by China and other Asian countries such as South Korea as a move to shift production and consumption towards a more environmentally sustainable path. South Korea is planning to invest $84 billion in green technology initiatives which will be implemented within a five-year period.

China, which has already invested up to $100 billion dollars each year for a projected 10-year period, is planning to expand its renewable energy initiatives further with another $440 billion stimulus package. This is in line with the country's efforts to cut energy consumption by 20 percent and reduce pollution down to 2005 levels. A-P

FURTHER READING:

- **Physorg**
www.physorg.com
- **ABC News**
www.abcnews.go.com
- **UWire**
www.uwire.com

COMPANIES MENTIONED IN THIS ARTICLE:

- **United Nations Economic and Social Commission for Asia and the Pacific**
www.unescap.org
- **China Goldwind**
www.goldwindglobal.com
- **Chaori Solar**
www.chaori-solar.com

Electronic Trade Green Effect

BY AMANDA MIN CHUNG HAN

If you conduct your business affairs online, you can save thousands of trees and you can remove your carbon footprints. Are you ready to join the world movement toward eco-friendly Internet business?

These days, nearly everything goes online. We listen to music on the Net streaming service, read books on an e-book reader, and even go grocery shopping on Internet shopping malls. Export and import are certainly included in this growing sphere of business. You would likely agree that online commerce is cost efficient and time-saving, but is it eco-friendly? The answer is yes, and here is why.

Electronic trade (e-trade) in goods allows parties involved in trade and transport to submit electronic information to fulfill all import and export orders. E-trade is nowadays becoming essential to save both cost and time, and it also adds to the convenience of doing business. However, there is another big advantage of e-trade which is not well known. E-trade can help with the reduction of carbon dioxide.

E-trade does not require paper documentation. According to the Korea International Trade Association Institute for International Trade (KITA IIT), paperless trade saves 420 million pieces of A4 size paper a year. To produce one box of A4 paper, 4.3 trees are needed. Therefore, these 169,000 boxes of A4 size paper (420million pieces of paper) add up to 727,000 trees. Also, one tree absorbs 39.6kg of carbon dioxide per year. That means that 727,000 trees remove 28,000 ton of carbon dioxide gas from the air annually.

KITA has also surveyed the average travel distance for document processing of various business entities. Trading companies travel 11.3 km to banks, 41.4 km to customs offices, and 18.5 km to other entities to process an average of 3.6 documents. Shipping and air cargo companies travel 9.5 km to customs and another 14.9 km to other entities to clear 3.8 documents. Before e-trade was introduced, 107 million documents were delivered in Korea by cars for document processing. On average, each document was delivered by a vehicle driving between 9.5 km to 44.2 km, depending on the document. That adds up to a total of 135 million driven kilometers.

Based on the Korean Ministry of Environment 2009 database, domestically produced cars emitted 209 g of carbon dioxide per km while imported cars generated 254 g of CO_2 per km. Since the domestic cars' market share is 94% and imported cars comprise 6%, the median carbon dioxide emission is 212 g per km. Therefore, when vehicles travel a distance of 135 million km in delivering documents, a total of 29,000 tons of carbon dioxide is emitted.

Thus, we could reduce a total of 58,000 tons of carbon dioxide - 29,000 from paperless documentation and another 29,000 tons from not running cars. To absorb this amount of carbon dioxide we need 1.45 million trees. E-trade gives us the same effect by preserving the same numbers of trees. Considering the annual number of trees planted is 36 million, the preserved number of trees is 4% of the total trees planted per year in Korea. This amount of carbon dioxide 'savings' equals 260,000 cars not running for an entire month.

As of the end of 2009, the use of e-trade services in export clearance is around 98%, 72% for custom refund, and in foreign exchange about 42%. The Korean government is working on a single window system to implement a 100% paperless one stop e-trade system for export and import. At the same time, the government has been cooperating with other Asian countries and economic organizations to have mutual agreements in implementing similar systems. The future does, indeed, look greener than we might have been led to believe. A-P

Continued from Page 13
of experience with composite materials, the software that engineers used to predict how the aircraft would behave did a poor job. And this contributed to problems like skin wrinkling on the aircraft's surface. Boeing has struggled with these problems for years, but to its credit it has finally acknowledged them.

An in-depth Jan. 20 report from Reuters quotes a Boeing statement: "We made too many changes at the same time – new technology, new design tools and a change in the supply chain – and thus outran our ability to manage it effectively for a period of time."

Boeing claims that it has learned tremendously, but will continue outsourcing. One step taken in 2009 was to "in-source" some of the work for big chunks of the 787 airframe. In July 2009, Boeing acquired two plants that make those parts from supplier Vought Aircraft Industries. Boeing views the financial benefits of outsourcing as irresistible. But unless it learns how to fix the problems of outsourcing, too, it is doomed to suffer the 787's cost over-runs and delays with future aircraft. A-P

Steve Allen | Dreamstime.com

The Greatest Challenge for the Pacific Islands - Climate Change

BY VINTI VAID

The clarion call for reducing carbon emissions was given to the industrialized world nearly 21 years ago by the small group of Pacific Islands whose highest peak reaches a mere 5 meters above sea level.

These tiny self-sustaining islands, facing the brunt of global climate change, are shrinking fast because of the increase in global warming and the subsequent rise in the sea level. However, most of the industrialized nations are refusing to face the problem in its entirety and are merely paying lip service to being committed to the environment cause.

How are the Pacific Islands being affected by climate change?

Tuvalu consists of nine islands with a land area of approximately 26 square kilometers. The highest peak is 5 meters above sea level. Approximately thirteen thousand people reside on these islands. Another island not far away is Kiribati, consisting of 33 atolls near the equator, which are on an average 2 meters above sea level. The islanders are watching their islands' coastal erosion growing by the year as sea levels rise.

Kiribati is densely populated and has additional battles to fight. Drinking water is always a scarcity, while sewage and waste disposal have already reached extremities. Tuvalu saw almost 7 percent of its land washed away in 1997 during two severe cyclones.

At the World Environment Day in Wellington, the President of Kiribati called upon the member nations to stop viewing Green house gas emissions as an option. The President very succinctly said that while cutting back on emissions or achieving zero carbon footprints was an issue of debate to the industrialized nations, it was an issue of survival for the Pacific Islands. As most of the islands are very tiny, even insignificant climate changes become driving forces of erosion and the islands then shrink drastically.

What the islanders fear

Given the gradual rise in the sea levels and high incidence of coastal erosion, leaders of most Pacific islands are seeking assurance from big neighbors like New Zealand to relocate displaced Islanders.

Pacific Islands repeat the clarion call

Pacific Island leaders are sounding the alarm again across international forums and at climate change discussions and conferences. They are already facing the effects of global warming and are desperately seeking greater cooperation from the developed nations. The Islanders are requesting a post-2012 standard where the global average temperature increase cannot go beyond two degrees. Though environment experts say the islands will not be able to survive beyond a 1.5-degree increase, the Islanders are keeping their fingers crossed while fighting a losing battle against climate change that will eventually leave them with no more islands to call home. A-P

Tyler Olson | Dreamstime.com

Holding Back the Ocean

BY MATTHEW WEIGAND

Several recent incidents online have shown that the Internet can be a radical force for change.

For those nations who try to control the Internet, these latest developments call into question their efforts. Is there any point in stemming the Internet tide?

The Internet is more of an uncontrollable beast than pundits previously thought. Such is the impression that I have gotten following the recent unfolding of major international events. The latest feats from Anonymous, the Egyptian protests, and the ongoing Wikileaks controversy point out the mercurial force of the Internet, or more precisely, the mob of people connected to it, which makes one wonder if it can ever be effectively controlled. This question becomes especially important when talking about those nations which seek to actively control the Internet. Are their efforts ultimately futile?

Some things just make you sit back and stare in wonder. That's what happened to me last week when Anonymous, the online personification of mob mentality, utterly destroyed a US-based security company in a few days just for fun. The perfect storm of dangerous secrets, lax security, and the interest of hostile parties came together to leave a formerly respected security company that was busy wooing fat government contracts humiliated, penniless, and without data.

Now, explaining what happened is complicated by the mystique that computer security and Internet hacking have in the popular culture. Hearing people talk about hacking and cuber-warfare brings to mind one or several badly-illustrated movies of absolute geniuses doing arcane things on computers with multiple monitors. These hackers perform a techno-voodoo magical spell in order to do what should not be possible – get all your secrets and control all your systems. Perhaps in a fit of spite they make your computer equipment explode, as part of the magic. But what really happened to Aaron Bar's security company HBGary wasn't magic at all, just incompetence. That's all you can call it when hackers get the password to your most sensitive data simply by asking for it.

Based on the company's complete body of email, which was copied and released to the public by Anonymous, the cybersecurity firm HBGary was deep in the process of winning lucrative security contracts from US government agencies. They were in contact with the FBI, the US military, and the Director of National Intelligence. Then their CEO, Aaron Barr, decided to win some online street cred and boost his company's prestige in the eyes of the federal government by uncovering the secret leadership of Anonymous, the online hacker organization that has most recently been in the news with regard to DDoSing Mastercard, Visa, and Paypal because of their refusal to work with Wikileaks. Barr had undertaken a personal research project and believed he had uncovered the real names and addresses of the top Anonymous leadership, which he planned to turn over to the FBI in a presentation. He went on to show in a file that the whole thing was run by three people identified as Q, Owen, and CommanderX. By watching Facebook, Twitter, and IRC, Barr believed that he had matched up these online identities to real people, two in California and one in New York.

Aaron Barr's plan was simple. He wanted to "start a verbal brawl between us and keep it going because that will bring more media and more attention to a very important topic", as he stated in an email exchange with Karen Burke, the director of marketing and communications at HBGary. The two were discussing the reaction to a recent article on the web site Daily Kos, in which an interview of Aaron indicated that he knew the Internet handles of key Anonymous members. He also said, "They think all I know is their irc names!!!!! I know their real fing [sic] names. Karen I need u [sic] to help moderate me because I am getting angry." He was about to get a lot more than angry, however.

Aaron Barr believed a lot of things that were not true. He had just let on in an online article with Daily Kos that he knew the real identities of top Anonymous leadership. He believed the most likely result of this claim was an upcoming verbal sparring match with said leadership. He also believed that it would be good for his company to do this, and that he would get publicity, notoriety, and land fat government contracts based on his presentation with the FBI that was scheduled to happen the next day. But none of that happened because Aaron Barr was very, very wrong.

The first thing that Barr was wrong about was that the group Anonymous had top leadership. It doesn't. It isn't really right to even call it a group, or an organization, or a collective. It is none of those things. Anonymous can best be described by a plot point in the movie V for Vendetta. In this movie, the vigilante known as V wears a Guy Fawkes mask, and eventually distributes at least 100,000 more masks to the general population. Anonymous is the digital version of that Guy Fawkes mask. Anybody can wear the label of Anonymous, and anybody can do whatever they want while wearing it, and claim to be Anonymous. One can guess that each individual act of Anonymous is spearheaded by one or more interested parties, and the popularity of the idea serves to recruit more or fewer followers. Really popular, awesome ideas can garner thousands of followers and create the kind of online presence needed to do something big, like taking down Mastercard's payment system for the day. Less popular ideas do not gain the necessary traction to make it big and are eventually discarded when their novelty wears off. Understanding that Anonymous is not a shadowy hierarchical cabal should be obvious, because the idea is right there in the name. Nevertheless, clueless security firm executives and government employees who are used to thinking this way believe that Anonymous is an organization that can be fought in the way that other organizations are fought – by attacking the head. Aaron Barr tried to attack the non-existent head of Anonymous, and it offended the people who most closely associated with the Anonymous identity. So they struck back.

The second thing that Aaron was wrong about was Anonymous's possible response. He was looking for spirited debate. But within the space of one day, hackers wearing the mask of Anonymous had managed to take out HBGary Federal's web site, replacing it with a pro-Anonymous message saying "Now the Anonymous hand is bitch-slapping you in the face." The hackers got into HBGary Federal's email server and copied over 40,000 emails, putting them up as a torrent file which anybody could download. They claimed to have deleted over one terabyte of backup data, and had remotely wiped Aaron Barr's iPad of all data. They took over his Twitter account and wrote explicitly disparaging content about him. Eventually the company's president, Penny Leavy, entered the Anonymous IRC chat room to beg the group to stop the attack. The hackers, elated with their extreme amounts of success, demanded that she fire Aaron Barr and donate money to the Bradley Mannings Defense Fund. Several members in the IRC chat began dissecting individual emails that they had found within the data that they had looted, asking Penny extremely precise and personal questions about her company and its operations. "Did you also know that Aaron was peddling fake/wrong/false information leading to the potential arrest of innocent people?", one person asked. Another said, "The document that [Aaron] had produced actually has my girlfriend on it. She has never done anytihng [sic] with anonymous, not once. I had used her computer a couple times to look at a group on facebook or something." The document that they were referring to was a presentation that Aaron had put together to show the FBI. That was the third thing that Aaron was wrong about. The information that he thought he had painstakingly assembled was incomplete, incorrect, and dangerous. It was a minefield of embarrassment for anyone who might have acted on it. In this sense, Anonymous did the federal government a favor by destroying Aaron Barr's company – they had saved the government from a potential waste of time and potential embarrassment as well.

> Anonymous can best be described by a plot point in the movie V for Vendetta. In this movie, the vigilante known as V wears a Guy Fawkes mask, and eventually distributes at least 100,000 more masks to the general population. Anonymous is the digital version of that Guy Fawkes mask.

But did Anonymous really do that much damage to the company? Based on the emails recovered by Anonymous, yes, they did. The company was hurting financially. Aaron Barr complained that he was overdrawn on his personal checking account, and that the company was running extremely low on cash. This personal research project of his on Anonymous was a last-ditch effort to get an edge over the competition and present the company as worthy of millions of dollars in government contracts. Unfortunately, he bit off more than he or his company's network infrastructure could chew. Extensive analysis around the Internet has determined that Anonymous was able to be so successful not because they are hacking voodoo geniuses, but because the supposed cyber-security company had failed to take even the most basic precautions regarding the security of their own network infrastructure. The company was actually not a real security company, but just pretending to be. They were using powerpoint presentations filled with buzzwords and the confident smile of their CEO to appear to be much more than they actually were. The Anonymous hacking attempt exposed their false claims for what they really were and ruined their reputation at the worst possible moment – when they had nothing left but their reputation to do business with. There is no way for the company to recover from this loss of reputation, and no way for them to be profitable now.

This overwhelming victory by a few anonymous Internet users against a cyber-security firm teaches a few valuable lessons. The first is that the collective attention of random people on the Internet can be bad for business, if you are a two-bit shyster trying to sell the world with a smile and a song. The complete destruction of HBGary can be contrasted with the relative ease that Amazon.com shrugged off the concentrated DDoS attack by Anonymous last month. Amazon.com pretty much wrote the book on distributed computing, which is an excellent counter to DDoS attacks. Their servers never showed any signs of being slowed by Anonymous, and the hive mind collective eventually moved on to the easier targets of Mastercard and Visa. The second valuable lesson that one can learn from this attack is that bored people sitting at home behind moderately powerful computers can be more technically savvy than an actual cyber-security company. Expertise is not limited to company names, but can be distributed wherever Internet users are. When we go back to the beginning premise of this article and consider that entire countries feel threatened by the Internet, then we can begin to see why they do feel threatened, and why doubts about their ability to control the Internet pop up.

But this is not the only recent incident that spells doom to governments with a repressive Internet policy. The successful protests in Egypt that resulted in the president of the country stepping down were Internet-related, at least peripherally. The Egyptian government thought so, at least. They were first caught trying to steal the Facebook passwords of their entire country, a move which Facebook countered by offering SSH logins for their service. Then protests escalated in the capital and the country shut down its connection to the Internet and most cell phone networks, hoping that the lack of communication would disperse the crowds. However, that was not the case, as the protesters reverted to older means of communication and successfully maintained their protests. While in this case a strong argument can be made for many other factors besides the Internet being responsible for the protests, the fact that the government believed Facebook to be important enough to steal login information from and the Internet itself to be influential enough to shut down is a most obvious move that the Egyptian government feared and tried to eliminate it, albeit unsuccessfully. What they should have done was control the Internet to prevent the people from communicating and organizing to begin with. That

Continued on Page 33

Norebbo | Dreamstime.com

Indian IT Sector Back on Growth Path

BY VIBHU SAXENA

The Indian information technology sector has been a vital element in contributing to the continued economic growth of the country in recent years.

The IT sector was profoundly affected by globalization, catapulting India into the global market and capturing sizable percentages in the business services and technology sourcing markets.

The growth in India's IT sector in previous years is attributed by initiatives from vertical industries which include banking, finance, insurance, manufacturing, retail and telecom. Changes in the global market scenario are providing new environments for emerging vertical industries with a focus on green technologies, energy efficiency, renewable energy, healthcare and mobile applications - new arenas in the global market where the Indian IT sector can make its mark.

Issues and challenges

However, the past few years saw India's IT industry slowing down in its growth path, as it was affected by many challenges and issues. Single digit growth was experienced by the industry in 2008, due to the financial crisis that was starting to sweep the globe during this period, prompting IT companies to cut down on cost by stopping expansion work and the hiring of new employees.

The global financial crisis also resulted in a weakened US economy which translated into considerable appreciation of the rupee and cutbacks in Federal Bank interest rates. This resulted in lower profit margins for most Indian IT companies. Aside from that, infrastructure developments also met with a slowdown that affected the value chain and Indian IT firms' efforts in providing end-to-end solutions for their clientele. A recent Nasscom survey indicated a lot of technical deficiencies among new college graduates, leaving them unqualified to fill in the necessary skills required in India's IT sector.

But according to Kris Gopalakrishnan, CEO of Infosys Technologies Ltd, the Indian IT sector is headed for a growth rebound, with companies expecting to hire additional staff and employees. The top five companies are expected to hire up to 180,000 new employees during the next 12 months.

On the rebound path

The Indian IT industry has shown a strong example of continuous growth during the last 15 years, starting in 1993 with only 150,000 employees, which then multiplied over the years to over 2 million employees at present. The IT industry overall has weathered the global economic downturn, exhibiting a recovery that is faster than what might have been expected.

At present, 50% of IT companies have strong plans of hiring additional manpower and intend to reward existing employees with an 8% average in salary increases. As the economic outlook stabilizes in the country and worldwide, the recovery of remaining IT companies will return them once more to the growth path.

Outlook for the Indian IT sector

The high growth rate in the country's economy is attributed to the growing demand for electronic hardware and software among a new generation of young consumers and the middle class with significant disposable incomes and high buying powers. Software and services exports are expected to breach the 60 billion dollar level by the year 2012, which is incidentally also the last year of the recent five-year development plan.

Several multinational companies are also looking towards India as an ideal geographical location to expand their global markets and this would require Indian IT support in terms of back office functions and other critical operational processes. A-P

FURTHER READING:

- **Indian Express**
  www.indianexpress.com
- **My Digital Financial Chronicle**
  www.mydigitalfc.com
- **Info Shine**
  www.info.shine.com

COMPANIES MENTIONED IN THIS ARTICLE:

- **Infosys Technologies Ltd**
  www.infosys.com
- **Nasscom**
  www.nasscom.in

Smart Grid:

Challenges and Opportunities

BY RAJANI BABURAJAN

During recessionary conditions such as the recent global downturn, emphasis on cost cutting becomes dominant.

Energy efficiency is perhaps the most important aspect to be discussed in all forums as a customary way to cost-cutting. Realizing energy efficiency will be a tough task without the deployment of Smart Grid technologies.

The grid has transformed from a centralized generation and control system, and at present incorporates centralized renewables (wind and solar). In the near future, the grid will include residential and commercial generation, and in the long run, it will be highly distributed with a high penetration of renewable sources that exhibit variable generation and non-dispatch-ability. Smart Grid can do more and it will be the driver of many businesses in the future, offering more opportunities than challenges.

Clean technologies can ensure the success of Smart Grid. Investment in clean technologies reached $243 billion in 2010 as compared with $186.5 billion spent in 2009, according to Bloomberg New Energy Finance. These investments include investments in renewable energy, smart grid equipment, and energy efficiency, among others. Industry experts feels that these 'deployments' are on the right track.

China is planning to spend $100 billion on smart grids and another whopping $600 billion on electric grids in the next 10 years as part of its vision to overhaul power infrastructure. China has tied up with GE to focus on smart grid-enabled initiatives, including standardization of EV charging technologies, grid scale energy storage integration, distributed resources, micro-grids and more.

The vehicle-to-grid market is likely to reach $2.25 billion in 2012 and $40.4 billion in 2020, according to GlobalData. The exponential growth will be triggered by deployment of smart grid, among others. Government stimulus, smart grid and EV deployments in the U.S., China and Japan will drive the vehicle-to-grid growth globally. Developing a viable vehicle-to-grid infrastructure depends on the speed and cost of smart grid implementations.

Telecom service providers see smart grid as an opportunity to grab revenue streams using their wireless data networks. Service providers will have an opportunity to manage the data collection process from customer meters on behalf of the utility. Telecom service providers like AT&T, for example, can earn one dollar per meter per month for such an offering. This approach will reduce the upfront investment a utility would have to make to support a smart grid deployment.

Olivier Le Queinec | Dreamstime.com

Creating awareness about this kind of service will be a key challenge for any operator. A utility's communications needs will increase during a power outage. At the same time, customers will also be using services to reach their families or friends. For this, additional bandwidth is required. Without offering a guaranteed bandwidth to the utility, the system will not work.

Home area networks are an essential part of the smart grid. The main challenge is that the home area network must automate those processes. For this, telecom service providers may expand their home networking role to include home energy management, enabling consumers to monitor various devices in the home, perhaps in parallel with home security management and home automation.

According to Pike Research, smart grid service provider revenues will increase to nearly $6 billion in 2016 from $2 billion in 2009. There are several alliances in the offing. AT&T has partnered with Current Group, a smart grid sensor and software vendor, to integrate Current's technology with AT&T's network management and wireless network management connectivity. AT&T is also partnering with Texas-New Mexico Power Company to offer wireless network connectivity for the latter's $123

Continued on Page 43

Top Tech Spending Priorities in Asia

BY ANURADHA SHUKLA

In the wake of the recent global financial downturn, economies are slowly recovering and enterprises once more are shifting their focus back to growth and restructuring but with a continued vigilance on maintaining targeted costs and maintaining acceptable operational efficiencies.

Competition in most markets has risen tremendously in a drastically changed business environment, prompting enterprises to adapt more effective business strategies, particularly in the area of information and communications technology (ICT) and to allocate their tech spending resources where it would matter most.

A recent survey conducted by Gartner Executive Programs in 2010 took a peek at where 2,014 CIOs from across 50 countries and 38 varied industries are focusing their budget priorities for 2011. The survey was a comprehensive look at where tech spending in various sectors is heading in order to support enterprise growth as well as take on a more competitive advantage in the market.

The number of CIOs who reported an organizational emphasis on growth supported by budget increases for spending is three times as much as those who reported budget cuts. These CIOs reported that at least 35 to 50% of their operational resources would be reallocated to growth and innovation. This is a favorable change from previous business scenarios where organizations allocate up to two thirds of their budgets to day-to-day operations and put little emphasis on business strategy transformations. Credit this change to the emergence of more cost-effective Internet service technologies.

A separate report from Gartner indicated that the Asia-Pacific region experienced the strongest growth for tech spending in 2010 and will most likely follow the same trend in 2011. But the changing emphasis on cost would encourage enterprises to focus on products and services that will provide better business values for their needs and transformational initiatives.

Top tech spending priorities

Tech spending on information and communication technologies among Asian enterprises is expected to increase by 7.6% in 2011. IT expenditures in 2010 were higher though, as organizations slowly recovered from the downturn in 2009. These organizations experienced budget freezes during that year due to the economic scenario.

Sergey Gavrilichev | Dreamstime.com

The recovery in 2010, however, ushered in renewed spending activities to accommodate previous sidelined demands, which included the need for replacements to old hardware. Although only 7% of the global IT services market is attributed to Asia, it will eventually account for at least 16% of total global market growth that will occur during the next four-year period.

2011 is projected to be the dawning era for cloud computing services and cloud deployments, and related service offerings would be the topmost tech spending priority among enterprises, whether the organization is a small to medium company or a multinational corporation. Cloud computing is more than just a buzzword as it offers a new platform where businesses can manage and optimize their systems and processes in order to increase business productivity.

Cloud computing services will be used by many organizations to redefine their IT models, leading to change on emphasis to growth and strategic impact. These technologies will fit in well with organizations' current resource realities as well as satisfy the need to adopt new IT infrastructures that provide similar services but with a significantly reduced budget cost.

Regional tech spending focuses

According to International Data Corporation (IDC), a majority of businesses across the Asia-Pacific region will be focusing on restructuring and expanding their businesses to gain a bigger share and penetration with their respective markets. A vital part in this expansion move is to rely heavily on information and communications technologies as the main key to further business growth. This trend is consistent across various sectors of the Asia-Pacific region as showcased in the following:

* Vietnam experienced a 24.9% growth in IT spending for 2010 and is expected to sustain a year-on-year growth of 17% in 2011. This high growth rate makes it the foremost market for IT spending in the Asia Pacific region. Most of Vietnam's economic sectors are in a growth path and will require heavy expansions with their IT investments. BPO services are also taking off as well as a private and government focus on developing businesses across the country particularly in rural markets. Vietnam's IT services is projected to account for the largest IT spending contribution, with an estimated growth rate of 18.5% year-on-year which is expected to exceed $347 million. Other contributors include hardware spending at 17% year-on-year, followed by packaged software at 14.4% .

* The Philippine market continue to be revitalized and will sustain ICT spending recovery from last year, continuing to experience growth with a forecasted technology spending of $3.63 billion towards the end of 2011. This can be attributed to the political stability and dynamic direction of the economy which is steering the country towards a 12% compound annual growth rate (CAGR) until the year 2014. Consumers and enterprises will most likely be more willing to spend and ICT vendors are jumping into this joyride by increasing their marketing efforts. CIOs, however, will place more importance on the ability of these ICT vendors to deliver critical business upshots.

* The Asia-Pacific economic giants China and India will likewise continue to be strong on IT spending after the manufacturing and supply chain industries recovered in 2010 in the wake of the global financial downturn. In China, companies will choose IT technologies based on mobility and services type models, with a focus on a larger channel reach that will go beyond existing customers.

Future trends for tech in Asia

According to a recent global study by IBM on more than 2,000 medium-sized companies spread across 20 nations in the Asia-Pacific region, more than half of respondents are planning to increase their IT budgets within the next 12 to 18 months. These companies will be investing in several varied tech priorities with 70% actively pursuing better analytics technologies that will give them a better understanding and insight about their customers. The data accumulated from these analytics technologies can help them become more efficient and make better-informed business decisions.

Aside from analytics, other tech spending priorities by mid-sized companies include collaboration, cloud computing, customer relationship solutions, security and mobility. Most critical IT priorities among these companies include security, CRM, and information management. These companies would also like to address pressing IT issues such as the difficulty of acquiring technology solutions as well as deployment of these programs. Another issue that these companies are facing is the lack of qualified IT skills and resources.

At least two-thirds of these companies have started or are planning to deploy cloud computing technologies in a quest to improve their information technology systems managements, while at the same time lowering their IT costs. Companies expect to gain other benefits from cloud computing aside from cost reduction, and this includes better IT management, improved system redundancy, and high availability% ages.

The IBM study also showed that at least 53% of the respondents are expecting an increase in their IT budgets within the next 12 to 18 months. 75% of these companies are planning to improve the performance, security and reliability of their IT systems through much-needed upgrades in hardware and software. At least 70% of these companies are planning to have a consultative relationship with their primary IT providers instead of maintaining the purely transactional relationship that they traditionally have.

The IBM report is consistent with the IDC findings that most of these businesses are shifting away from their earlier focus on cost reduction and efficiency improvement and will evolve into expanding their businesses to new heights and increase their roles as igniters for economic growth. These businesses are looking at information technology as their most essential tool to improve their connection with customers, gain greater business insights, and achieve bigger business growth in the long term.

Software is also seen to be the fastest growing segment for IT spending in the Asia-Pacific at 11.3% for the period until 2014 according to Gartner. Hardware follows at 10.1% , IT services at 9.3% and telecommunications at 7.6% . Healthcare, utilities and education are seen to be the top vertical industries that will usher in a strong growth for tech spending until the year 2014. This report from Gartner also indicated that Asia will spearhead the growth in enterprise IT spending and

Continued on Page 45

Enterprise IT Spending in Asia-Pacific to Grow in 2011

BY KEVIN LIU

2010 proved to be better than expected as global economies slowly rose from the onslaughts of the recent global financial crisis.

This trend holds true even for the global IT industry, which registered an 8% year-to-year growth and with enterprise spending reaching levels of up to $1.5 trillion worldwide - the fastest growth rate registered since 2007.

In a report from Gartner's senior vice president and global head of research Peter Sondergaard, this global scenario applies to the Asia-Pacific Enterprise IT spending arena, which rebounded from a 1.3% decline in 2009 and is expected to increase by 7.6% in 2011, with forecasts valued at $312.3 billion. Sondergaard presented this latest outlook at the Gartner Symposium/ITxpo in Sydney which was attended by more than 1,500 global IT leaders.

IT spending trends in the Asia-Pacific

Just like other global economies, Asia-Pacific enterprises experienced severe budget freezes in 2009 in the wake of the global economic downturn. Things went better in 2010 as new life was brought back to IT spending to satisfy earlier sidetracked demands as well as the need to replace old hardware. Australia, which suffered a 5.3% decline in enterprise IT spending in 2009, enjoyed a strong year in 2010 and is slowly recovering at a modest 2% growth.

China and India, which experienced tremendous growth in the manufacturing and supply chain sectors despite the negative impact brought about by the global economic slowdown, are still showing signs of not letting up in the growth trend which they enjoyed in 2010 and which is expected to be carried over to 2011. Similar trends are being experienced in the rest of the Asia-Pacific as well as Australia.

Enterprise IT spending focus in 2011 and beyond

In the global scenario, enterprise IT spending by financial service companies and institutions is forecasted to undergo a 3.7% growth rate in 2011 over the previous year, with values reaching more than $363.8 billion. Asia-Pacific enterprises, which currently account for more than 26.4% of global enterprise spending, were seen to register the fastest growth rate among financial services institutions, at 6.2% CAGR.

However, according to Gartner's growth forecasts for the 2011-2014 period, the fastest growth rate in the Asia-Pacific region is expected to come from the software sector, forecasted at 11.3%. Other IT segments are also forecasted to register an increase in growth rates, with hardware leading the pack at 10.1%, followed by IT services at 9.3% and telecommunications at 7.6%.

According to Gartner's report, enterprise IT spending by emerging economies, particularly on hardware, is slowly outpacing spending rates by more developed economies in the west. Even while the region represents only a small amount of the global IT market at 7%, analysts foresee that hardware spending in the region will eventually surpass that of the west by the year 2012.

Vertical industries will also be a key factor in enterprise IT spending growth in the Asia-Pacific region. Among vertical industries, the healthcare sector shows the highest potential for growth up until 2014, spurred by the influx of government stimulus funds in various Asia-Pacific economies. Aside from healthcare, utilities and education are other vertical industries that are expected to register the strongest growth rates in the Asia-Pacific. A-P

FURTHER READING:

- **India Times**
  www.economictimes.indiatimes.com
- **Global Print Monitor**
  www.globalprintmonitor.com
- **Deccan Herald**
  www.deccanherald.com

COMPANIES MENTIONED IN THIS ARTICLE

- **Gartner**
  www.gartner.com

Riding the Asian Tablet Bandwagon

BY DING DING

The tablet PC has grown in tremendous popularity across the globe and is fast becoming a preferred mobile computing choice in emerging markets such as Asia.

Gareth Ladley | Dreamstime.com

According to the technology research company Gartner, the tablet PC is very popular among people who already have a personal computer or laptop in use as their main unit but who want an efficient portable computing device that they can bring anywhere.

A similar consumer survey performed by Nielsen Global in Taiwan showed that 36% of respondents already have a tablet PC or are planning to purchase a unit of their choice in the near future. Tablets like Apple's iPad and Google Android tablets feature faster Internet connections than laptops, making them more appealing to people while on the go.

The surveys also indicated that tablets will not totally replace the personal computer or laptop, nor do users rely on tablets as their sole computing device. Despite their portability, tablets are not suitable for use when you want to type something, a function that is more suitable for laptops or netbooks. The tablet PC is in a totally different computing class, and is suitable for specific computer needs such as online research or reading content.

The following is a brief look into tablet computers from an Asian perspective, its appeal to the market and how major computer industry players are jumping into the Asian tablet bandwagon, thereby setting the future for mobile computing in the region in the coming years.

The tablet PC's appeal to Asian consumers

Aside from their portability and unique computing features, tablet PCs have grown in appeal among Asian users, whether from a personal, commercial or business perspective, due to other elements in people's day-to-day computer usage behavior where tablets would form a perfect fit. The following describes some of these elements that make tablets appealing to Asian consumers.

* Social media networking and applications continue to grow in leaps and bounds. The tremendous popularity and widespread usage of networking sites such as Facebook, LinkedIn and Twitter in Asia have made social media evolve from being mere fads to becoming intrinsic parts of people's personal and business lives.

* Social media has also penetrated the business realm and has transformed how enterprises interact with their customers. Tablet PCs are an integral part of the social media revolution and will continue to be so as users increase their personal or business social media footprint.

* Market analyst XMG Global reported that more than 30% of small and medium sized businesses in the Asia Pacific are expected to start making promotional campaigns through the social and mobile networking platform. This figure is lower than their counterparts in the United States and Europe particularly with large corporations which tend to be more conservative in this area and would not commit to integrating social media as part of their core business infrastructure. The popularity of tablet PCs will play a major role towards this integration.

* The wide diversity of applications intended for the tablet PC has evolved from mere personal applications into becoming mainstream business tools. The appeal of these applications does not necessarily hinge on which would provide more complex or more technical processes, but on which tablet platform would provide the biggest selection of useful applications that are both relevant and easy to use. During the next 3 to 5 years, other online services such as eBooks, video conferencing and Web TV will be made more available to the Asia Pacific region which will increase the popularity of tablet PCs much further.

* Mobile unified communications in real-time through tablet PCs will have a compounding annual growth of 19% through the periods beginning from 2011 until 2013, according to the same survey from XMG Global. This includes chat, video conferencing, VoIP communications, and other web conferencing functionalities on top of standard communication channels such as SMS and email.

* The influx of next-generation tablet devices that feature more advanced applications such as corporate computing would provide further appeal to tablet computers, which is expected to catapult sales during the next couple of years. Although tablets will not be a replacement for desktop and laptop computers, they will continue to gain a bigger market share in the Asian computer market in the coming years.

Tablet PC market performance in Asia

A previous report from International Data Corporation (IDC) indicated a tremendous growth for tablet computer shipments, starting with 1.3 million tablets in 2009 which is projected to grow at a compound annual growth rate (CAGR) of 65% and which will reach projected figures of up to 9.6 million by the year 2014. This growth is expected to converge on three major markets, particularly Australia, Hong Kong (China) and Singapore.

The launch of Apple's iPad early in 2010 was received with great interest among Chinese consumers and generated more than 600,000 units in sales in 2010. The reception was so tremendous that Apple is currently facing a shortage of units that can supply tablet computer demands in the Chinese market. These figures are less than one-tenth the market of cellular phones and notebooks but market analysts believe they will increase exponentially along with further developments in tablet computers that would make them more convenient for mobile personal computing and business market applications.

The iPad will continue to be the hottest selling device tablet device in 2011, commanding a 15.9% share of the global personal computer market with an expected 25 million units in sales. However, new tablet computer players will also enter the Asian tablet bandwagon. These include major personal computer brands releasing their tablet computer versions in various operating systems and platforms, as well as local Asian brands, such as tablets from Taiwanese PC vendors, that are projecting sales of up to 5 million units this year.

Emerging tablet PC technologies in Asia

The growing popularity of tablet computers worldwide and the influx of emerging tablet PC technologies will provide a positive impact to both the global and Asian personal computer market in 2011 and in the years to come. Other global computer brand manufacturers such as Acer, Asus, Dell, HP, Lenovo, Huawei and Samsung, among others, will try to follow in the wake of Apple iPad's success, jumping into the tablet competition with a fresh offering of new models. Consumers will have their first look into these devices during the first half of 2011 as they continue to penetrate the market in the succeeding months.

The new models that will see release in 2011 will feature new designs and configurations as showcased in recent consumer electronic tradeshows held across the globe. Tech and gadget enthusiasts from Asia will have their fill of features and functions such as virtual keyboards, multi-touch screens, wireless adapters, networking features, office suites and a host of other applications.

Although industry experts see that tablet computers will not immediately become a mainstream replacement for laptops and notebooks during the next couple of years, tablet computers will take a larger piece of the personal computer market pie. Netbooks are expected to experience significant decrease in sales as tablets become a more preferred mobile computing platform. Although there are several pros and cons between netbooks and tablets, many people prefer the increased portability and sleek design of the tablet without the keyboard, particularly if their web activities are mostly focused on web surfing and social networking.

Experts also see tablets giving a death blow to Kindle and other electronic readers. eBook functionalities are an intrinsic part of tablet computers but they feature a broader computer power than what pure eBook readers can offer. Most users would not see it wise to maintain two separate devices that can perform similar functions, at least in electronic reading capacities.

The future of the tablet PC market in Asia

Industry experts are seeing a tremendous take-off for tablet computers in 2011 worldwide and particularly in the Asia-Pacific region, with figures soaring up to 212% with an expected 38.31 million tablets in sales, up from the 12.28 units sold during the previous year. China's tablet PC market, on the other hand, will experience a tremendous 300% growth as the tablet market will see expanded penetration in low-tier cities and other rural areas in the country.

The Asian tablet computer market will showcase a fierce all-round competition both from major computer retailers and providers of operating systems. On top of that, mobile operators are slowly moving into the 4G network realm in the next few years, which will make tablets an even more strategic mobile personal computing tool for personal and business use.

Experts are optimistic about the long term potential of the tablet PC sector in the personal computer industry, despite the many challenges and roadblocks that the market will face. As this personal computing platform continues to gain manufacturing support from both branded and local computer manufacturers, all wanting to jump into the Asian tablet bandwagon, the Asian computer market will continue to experience even greater strides in the tablet arena in the months and years to come. A-P

FURTHER READING:

- **Electronics Manufacturing Asia Magazine**
  www.emasiamag.com
- **What's On Xiamen**
  www.whatsonxiamen.com
- **PC World**
  www.pcworld.com

COMPANIES MENTIONED IN THIS ARTICLE:

- **Apple Inc.**
  www.apple.com
- **International Data Corporation**
  www.idc.com
- **XMG Global**
  www.xmg-global.com

60% Growth in Laptop Demand Seen in Gujarat

BY REENA SAXENA

Computer literacy is definitely picking up in pace in the state of Gujarat as reported by industry experts here just recently.

According to Ahmedabad Computer Merchants Association, or ACMA, the demand of personal computers is growing at approximately 15 percent, while the laptop market indicated an astounding 60 percent growth rate.

According to Kirit Thakkar, president of ACMA, this growth is attributed to the increased demand in Tier-II and Tier-III cities in the state, as well as higher market penetration in smaller towns. This growth in computer demand is an indication of a dynamic business atmosphere coupled with growing literacy even in remote areas of the region.

Computer use and demand in Gujarat

The increasing growth rate for computer and laptop demand in Gujarat has translated to more than 20,000 PC sales and 11,000 laptop sales per month. These figures are expected to grow even higher during the forecasted future. This is in line with the growing need to use Information Technology, as established in a previous study conducted by Asst. Professor Prayatkar K. Kanadiya and Information Scientist Atul K. Akbari.

Their report, which was part of the International Conference on Academic Libraries (ICAL-2009), revealed that people from the state are benefitting much from the Internet services provided in the Gujarat Vidyapeeth library. The study concluded among other things that:

- 93.75 percent of the student body prefer to use the Internet
- 44 percent of students are using the Internet for about 1 to 2 hours per day
- 42.27 percent have used the Internet to support their academic requirements
- 33.33 percent are satisfied with their use of the Internet, e-Books, and e-Journals
- 57.78 indicated that the Internet helped improve their intellectual and logical development

Support from computer manufacturers

Among top computer manufacturers, Lenovo India is providing the biggest support for computer manufacturing in the state, which is seen as a growing industrial and business hub where producers want to have a strong retail presence for their products. At the national level, Lenovo is holding the fourth spot among the top computer brands, which include Acer, Dell and HP, and it also holds approximately 9.2 percent of the market overall. In Gujarat, Lenovo is enjoying a higher market share at 20 percent.

Lenovo has already worked with a chain of IT retail stores called e-Mall, which is promoted by Sai InfoSystems (India) Ltd, but the company is aggressively planning to penetrate more areas in the state and is exploring another partnership with Ahmedabad-based Aegis Infoware Pvt Ltd. Lenovo is planning to roll out 20 LES Lite, or Lenovo Exclusive Stores, in an extensive plan to increase retail presence in the state and in the country.

What the future holds for Gujarat

This high confidence from top-branded computer manufacturers spells a good future for the market in Gujarat. The demand in small towns is promising and indicates some of the highest growth rates. This scenario is true not only in Gujarat but in the rest of the country as well, with approximately 10 million units sold each year. This is expected to close the gap with China's current computer market within the next two years. A-P

FURTHER READING:

- **Business Standard**
  www.business-standard.com/india/news
- **India Times**
  timesofindia.indiatimes.com
- **International Conference on Academic Libraries (ICAL-2009)**
  crl.du.ac.in/ical09

COMPANIES MENTIONED IN THIS ARTICLE:

- **Ahmedabad Computer Merchants Association (ACMA)**
  www.acmaindia.com
- **Lenovo India**
  www.lenovo.com/in/en
- **Aegis Infoware Pvt Ltd**
  www.indiamart.com/aegisinfoware
- **Sai InfoSystems (India) Ltd.**
  www.saicare.com

Robin Lund | Dreamstime.com

Is Asia Ready for M-Banking?

BY REENA SAXENA

With the complex processes involved in today's financial and banking environment, one could scarcely imagine what the banking system would be nowadays without the power of the Internet.

Taking this a bit farther, in a world drastically changed by the mobile phone, one would reasonably expect that something as important as financial and banking services could be transacted through their mobile devices.

Until recently, when people hear the term mobile banking, what came to mind would be something along the lines of viewing their balances or their bank accounts through SMS messages. But advancements in mobile phone technologies have evolved these devices from being mere gadgets for calling or texting into pocket-sized computers, making them ideal tools for mobile personal banking, or even mobile enterprise banking.

But is the world, or more specifically Asia, ready for mobile banking, or M-banking? A recent survey form KPMG global indicated that more and more people are getting more comfortable about using mobile devices and technologies for banking and other financial transactions, prompting several financial institutions to forge ahead and adapt this technology.

Several financial institutions in Asia however, are still wary about fully implementing M-banking and offering this particular service to their clientele due to a wide variety of issues and considerations. One of these reasons is to first assess whether there is a real and proven need for it, in light of several conflicting views about the benefits of M-banking.

The following provides a brief look into M-banking in Asia and how it is affecting financial institutions and the Asian populace in general.

What is m-banking?

M-banking, or mobile banking, is basically financial or banking transactions (eg. transferring money from one account to another) through a mobile phone or device's web browser. An application is provided which users can access through their web-enabled mobile phones or smart phones and serves as the financial institution's web frontend portal. Users can access their bank accounts through this application and conduct whatever financial transactions they require. Banks can also send account balances or financial statements to the users through this application.

Another variation of M-banking is where users access their bank's online portal by typing in the proper address on the phone's web browser. The user is then redirected to a secured gateway where users can gain access to their accounts. According to financial institutions already providing M-banking services, customer details will not be stored on the users' phones for security reasons.

In some variations, the phone is registered with the bank and will require no additional password or account details upon gaining access. They can also perform transactions via SMS using specific keycodes. In case of lost or stolen mobile phones, the M-banking services will immediately be switched off upon user deactivation of their SIM cards.

Requirements for m-banking

There are certain issues and prerequisites that should be taken into consideration before a particular financial institution can offer M-banking to their customers. Still, banks and other financial institutions should implement innovative solutions that will provide their clients with the best user experience, and addressing these issues and challenges would be the first logical step in this regard.

The following highlights some of these considerations and financial institutions are now seriously looking into these items before finally making the switch to M-banking for their clients.

* Banks should make it clear to their clients that anyone availing of M-banking services and/or installing apps on their smartphones would still have to shoulder standard messaging and usage fees with their mobile carrier.

* Client phones should be enabled or support the M-banking apps as well as SMS banking services that the banks would offer. More advanced M-banking services require phones to be Java-enabled and preferably equipped with an active General Packet Radio Service, or GPRS, capability. GPRS is a high-speed packet-switched digital data service channel that uses GSM technologies, allowing banks and users to have a dedicated and circuit-switched channel for a more secured connectivity.

*Financial institutions should understand that their core business is not Information Technology or telecommunications. Given this fact, they may not be able to integrate M-banking to their services on their own accord. They should work with experienced experts from the mobile phone sector to help facilitate installation and implementation of M-banking.

* Maintaining high levels of security is a main point of focus. It is a proven fact that mobile phone users are faced with the possibility of losing their phones or having their units stolen during day-to-day use. In some cases, users tend to change phones and other mobile devices as fast as new models come out in the market and would often neglect removing or deleting vital financial information on their mobile devices. Financial institutions should address these potential concerns and establish plans that would ensure high levels of security for their clients.

* Customers going into various bilateral commercial agreements with multiple mobile network operators are a cause for concern that financial institutions should face. They should define and provide solutions that minimize this need and provide a better user experience for their clients.

* Financial institutions should also look into different outsourcing models that they could tap for their M-banking services. A service provider that specializes in telecommunications could provide them with the much needed expertise to handle technical support for their M-banking services.

* M-banking is a new concept for many Asian economies. This fact should be clear to financial institutions particularly when putting into considerations existing standard, regulations and other governance models.

M-banking trends in Asia

Currently, only about 5% of all mobile phone users are subscribed to mobile banking and a mere 0.5% of subscribers are actively using these services. This low usage arose from concerns about privacy and security in conducting financial and banking transactions through their mobile phones. But according to the KPMG Consumers and Convergence survey, an increasing number of consumers are rapidly integrating M-banking into their day-to-day lives, and 2011 may be the year when people choose to transform their banking habits and go mobile.

In the KPMG survey, the number of consumers using mobile phones for online retail has grown to 28% worldwide and 41% in the Asia Pacific - more than 3x the number from previous surveys. But what is notable from this survey is that 46% of respondents claimed to have used their mobile devices for M-banking, 44% of whom came from the ASPAC region and who indicated that they have used their phones for M-banking at least once a month. This is significantly higher than the number of respondents from the United States and Europe.

Accenture has also commissioned studies conducted on 20 financial institutions across the globe to assess the impact of M-banking, and the results were certainly laudable. The study highlighted one Middle Eastern bank that generated a 300% return of investment after allowing their clients to pay utility and other bills using their mobile devices. Similar results were achieved by another bank in the Asia-Pacific, which realized a 230% return of investment after launching their own mobile banking services.

According to KPMG, M-banking has a better chance of taking off and achieving success in the Asia-Pacific region as compared to Europe because of the inherent apathy and lack of trust from European banks. The potential for M-banking in Asia-Pacific is high because of the high levels of mobile phone usage penetration to a very large population base, such as the 60% mobile phone penetration that is expected to be reached in India by the end of 2011.

Asian banks are starting to roll out their M-banking services and have already initiated SMS banking by providing SMS alerts about credit and debit information as well as check status for their clients. Many of these financial institutions have already tapped mobile phone and cellular networks and have come up with a Memorandum of Understanding and other agreements for mobile financial and banking products and services.

The future of m-banking in Asia

Several financial analysts and experts are predicting a great future for M-banking not only in the Asia-Pacific but across the globe. Juniper Research is one such institution that predicted that mobile phone banking would revolutionize the banking and financial services in a similar manner that ATMs revolutionized the sector several years ago. The analyst firm predicted that by 2011, US $587 billion worth of financial instructions would be generated by over 612 million mobile phone subscribers worldwide.

A similar forecast was given by Berg Insight, indicating that mobile phone banking users will grow to 85 million in the United States and 115 million in Europe by the year 2015, while total worldwide usage will grow to 913 million by the year 2012 with a CAGR of 89%. Asia-Pacific will account for up to 65% of total users and will be the most important market. According to KPMG, M-banking will have the biggest opportunities in China, India, Indonesia and the Philippines, while strong adoption rates will also occur in Thailand, Malaysia and Vietnam.

These figures indicate that mobile phones and devices will be a primary digital mobile channel for banking and financial services and will usher in the next generation of the modern financial system, a trend that is fast becoming a reality in the Asia-Pacific region. A-P

FURTHER READING:

- **Scream News**
  www.screamnews.com
- **Business Standard**
  www.business-standard.com
- **Bank Systems Technology**
  www.banktech.com

COMPANIES MENTIONED IN THIS ARTICLE:

- **Juniper Research**
  www.juniperresearch.com
- **KPMG**
  www.kpmg.com
- **Accenture**
  www.accenture.com

Continued from Page 25

is what China does, as does its North Korean neighbor.

Which is really what the point of the article is about. North Korea is the most successful government in the world if you view success as controlling the people's ability to communicate with each other and the outside world. The second most successful country would be China, which has extensively tried to censor and control its Internet infrastructure for many years. China and Egypt have been linked together recently by the actions of a few Chinese calling for a Jasmine Revolution, which refers to Egypt's recently successful regime change. Chinese citizens were taken away after laying down hundreds of white jasmine flowers outside a popular McDonald's in Beijing, along with a large crowd of unorganized yet agitated individuals. Online calls for more protests are being censored as soon as they can be, and yet it is imperfect. China has been prepared for this eventuality for a long time. They are doing their best to nip things in the bud, and avoid going down the path that Egypt has gone. However, the Internet, by which I mean the people on it, is showing itself again and again to be an uncontrollable force. Governments like China can maintain control now, but I do not think they can maintain control forever. The Internet is the people, and the will of the people cannot be contained by laws, or regulations, or technical restrictions – it always comes out ahead in the end. One might as well be trying to hold back the ocean with their own hands. A-P

Asian Mobile Cloud Services Emerging in 2011

BY VIJAY ASTHANA

The tremendous increase in sales for smartphones and tablet computers is a clear indication of their growing popularity among consumers.

Saniphoto | Dreamstime.com

Sales of mobile computing gadgets have already overtaken global sales of personal computers in 2010. Mobile gadgets, which include tablets, notebooks and netbooks, accounted for 61% of the overall PC market, while the remaining 39% referred to desktop computers. This wide gap in global sales is expected to increase much further and will hit the 75% mark by the year 2014.

However, these portable computing devices have inherent hardware limitations such as small storage, limited processing power, slow speeds and poor security features that make them inappropriate for enterprise and business applications. Except for minor business-related functions provided by apps, core business processes and applications which require more complex resources cannot be made available through these mobile gadgets. However, related businesses continue to expand globally, and this includes deployment of remote staff and employees that would require constant communication with headquarters and their resources.

This prompted third-party vendors to take advantage of this need while riding the mobile popularity wave by providing mobile cloud services to enterprises across various markets and industries. Through mobile cloud services, enterprises can now have access to sufficient computing and storage capabilities in a secured platform through their mobile devices.

This move towards mobile cloud services is spurring a 9.4% growth for the IT services market in the Asia-Pacific region that is expected to grow in momentum throughout 2011 and beyond. The following is a brief look into the current trends and directions for mobile cloud services in Asia and how it will revolutionize enterprise Information Technology this year and in the years to come.

Mobile cloud service trends in Asia

Cloud computing has taken on a strong growth path in the Asia-Pacific region and reached figures of up to 1.1 billion US dollars in 2010, according to the International Data Corporation (IDC). Most of these deployments were focused on Software as a Service, or SaaS, among others. Singapore continued to be the region's main cloud computing hub, mainly due to its large presence of multinational companies as well as a strong broadband infrastructure support.

These figures from IDC were confirmed in another study conducted by Springboard Research, which also reported accelerated growths for cloud computing in the Asia-Pacific region for the year 2010. The report from Springboard indicated that up to 45% of enterprises in the APAC region, excluding those from Japan, have either adopted cloud computing deployments or are planning to move to these services in the very near future.

These figures fared a lot better than IDC's previous pronouncements in 2009 that growth in the IT services market would slow down due to existing global economic conditions. IDC pointed out back then that enterprises are focusing less on business transformation and are shifting their attention to balancing cost savings. Economies, however, slowly recovered in 2010, giving markets a valuable chance to rebound and recover.

With economic recovery on the horizon, businesses in Asia are renewing their earlier efforts for enterprise transformation that were stalled during the global financial slowdown. This shift would push further growth for IT services markets, as most Asian enterprises are now exploring the benefits of end-to-end managed services, particularly with the need to increase their competitiveness in a changing market environment as well as to strengthen their infrastructure for compliance and disaster recovery.

The pressure to reduce capital expenditures is still a top priority among Asian businesses, and many would opt for more innovative but cost effective solutions to the various enterprise needs that their businesses have. This will make cloud computing and other outsourced services a more viable option for these budget-conscious enterprise IT executives.

Challenges and opportunities

As smartphones and tablet computers take center stage in the personal computing arena, several issues and challenges have been emerging, particularly for Asian enterprise and business users, brought about by the several limitations in hardware and performance. A primary concern is mobile security and privacy as well as virus protection. As the number of users of smartphones and tablets grow, so will the proliferation of viruses and malware aimed at smartphone and tablet platforms and operating systems.

This poses an excellent opportunity for cloud computing services, according to analyst firm Frost & Sullivan Asia-Pacific. These third-party firms can offer various security services such as virus protection and remote wipes, particularly to enterprise users of these devices. On top of that, cloud computing services can extend the limited capabilities of mobile devices such as providing virtual memory capacity and increased processing speed.

However, Frost & Sullivan pointed out that many mobile carriers in the Asia-Pacific region are slow in capitalizing on these needs for cloud computing services and providing such services to their clientele. This can be attributed to several security concerns and issues raised by enterprise executives over cloud computing deployments. However, as more Asian CIOs and Senior executives involved in the IT-decision-making process gain a clearer understanding of how cloud computing can be relevant and applicable to their businesses, more and more enterprises will be initiating the move towards these outsourced systems.

Another challenge to cloud computing services in the Asia-Pacific is that many emerging markets are still lagging behind in their mobile Internet service infrastructures and availability. These markets include Thailand, Bangladesh and Pakistan, where no 3G licenses have been issued yet. The governments in these countries are still in the process of being convinced about the merits of higher Internet penetration with their populace and how this can positively impact their gross domestic product.

Analysts are predicting that these bureaucratic delays in the issuance of 3G licenses will continue to drag on throughout 2011 and might probably be carried over until the first half of 2012 or even beyond. One option for these markets is to adopt LTE, or Long Term Evolution, or what is more commonly called 4G, should 3G license issuance continue to struggle with regulatory red tape. The problem with 4G, however, is that consumer gadgets using these technologies are still not very affordable in these countries.

Despite these challenges, Asia-Pacific operators offering cloud-based enterprise services that offer scalable and more efficient solutions will find new revenue streams in the coming periods as they continue to penetrate most levels in the IT value chain.

The future of mobile cloud services in Asia

The continuous decline of smartphone prices and the increased richness and functionality of various available applications will be the keys to the tremendous growth in sales projected for 2011 and beyond. Smartphones account for almost 20% of total mobile device sales and this is forecasted to reach 100 million in 2011 with a potential to hit 500 million by the year 2015 and thus gain 60% of the mobile market according to Frost & Sullivan.

The analyst firm also predicted that tablet computers will overtake other portable computer devices in 2011 and will be the main computing tool of choice for various online activities. These figures coincide with a separate report from the Yankee Group, which predicted tablet sales revenues to reach US $46 billion by the year 2014, with the Asia-Pacific region accounting for 58% of worldwide sales.

With this increase in web-connected mobile devices and the maturity of cloud computing services, 2011 and the coming years will usher in a new era for both public and private cloud deployments. Gartner supports this by predicting that by the year 2012, new demand and deployments of managed IT infrastructures will be based on utility and cloud-based deployments. Spending for cloud services in the Asia Pacific region will grow by as much as five times from 2011 onward, with small and medium-sized business taking a large piece of the pie.

Larger enterprises, still fearing security risks from the cloud environment, will adopt private cloud computing models in their infrastructure that will work in parallel with their legacy IT infrastructures and environments. Traditional IT service providers are also riding on the emerging cloud services wave in the Asia-Pacific by actively reinventing their own infrastructures and prepping themselves for this coming cloud revolution. This will rely heavily on their existing partnerships and customer base, who will also most likely commit to this change.

Small and medium sized enterprises are projected to take a large part of this growing demand for cloud services, especially SaaS applications. However, these applications still have limited customization capabilities, making them less appealing for larger enterprises, particularly with regard to adopting them for their core processes and application. Large enterprises, however, still use SaaS applications, but are limiting their use on non-core systems.

According to Frost & Sullivan, SaaS will continue to be the dominant segment in the Asia-Pacific cloud environment, capturing 90% of the market, and it is expected

Continued on Page 47

Nokia-Microsoft Deal:
Innovation in the Offing

BY RAJANI BABURAJAN

The Microsoft-Nokia alliance that was created towards enhancing the phone market share of these two technology giants looks set to pave the way for innovations in the mobile phone market.

To thwart competition from this alliance, Apple and Android will move to strengthen the presence of their innovative phones. Other phone majors will follow suit with new business models, with Nokia in a position to go for cost effective mass production.

"Ecosystems thrive when fueled by speed, innovation and scale. The partnership provides incredible economies of scale, vast expertise in hardware and software innovation, and a proven ability to execute," said Steven A. Ballmer, Microsoft CEO.

Industry feels this is the right decision by Nokia's CEO, who joined the handset major after working with Microsoft. Nokia is facing challenges from major smartphone makers in value markets and regional players in volume markets.

In 2010, Nokia's mobile phone sales to end users added up to 461.3 million units, declining by 7.5% in market share from 2009. RIM's mobile phone sales in 2010 reached 47.5 million units, showing an increase of 38.2%, according to Gartner. Apple sold 46.6 million units in 2010, registering an 87.2% rise from 2009.

"There were few short term options available to Nokia to help it get back on terms with Apple and especially the Android masses, which in 2011 look set to overtake Nokia in terms of smartphone shipments," said Tony Cripps, principal analyst of Ovum.

According to Gartner's third quarter smartphone data, Android accounted for 25.5% of worldwide smartphone sales, increasing 3.5% from the same quarter in 2009. Apple's iOS dropped from 17.1% in 2009 to 16.6% in 2010. Symbian took the top spot with 36.6% of sales.

Nokia and Microsoft will jointly create mobile products and services designed to offer consumers, operators and developers more choice and opportunity. Additionally, Nokia and Microsoft plan to work together to integrate key assets and create completely new service offerings, while extending established products and services to new markets.

"Today, developers, operators and consumers want compelling mobile products, which include not only the device, but the software, services, applications and customer support that make a great experience," Stephen Elop, Nokia President and CEO, said.

The main threat will be not only to Apple but also to Google and Yahoo. Nokia will adopt the Windows Phone as its principal smartphone strategy. The handset major, which is seeing erosion in its market share, will contribute its expertise on hardware design and language support, helping to bring Windows Phone to a larger range of price points, market segments and geographies.

Bing will power Nokia's search services across the Nokia line of devices. Microsoft adCenter will provide search advertising services on Nokia's line of devices and services. Nokia Maps will be a core part of Microsoft's mapping services.

The market is going to see more competition and price cuts in coming months, while innovation - both in technology and business models - will be the focus area for handset majors.

Summary: The recently announced Nokia-Microsoft deal will pave the way for the introduction of more innovative devices. The deal is a threat to Google and Apple, who are emerging to the dominant position, rivaling Nokia and Microsoft in the handset arena.

The deal may force Nokia to become a captive business for Microsoft's Windows platform. However, Nokia should not focus only on one platform since customers prefer the availability of Nokia phones on multiple platforms.

Following the deal, Microsoft will leverage the mass-production capabilities of Nokia and the combined force will surely emerge as a threat to other players in the market. A-P

COMPANIES MENTIONED IN THIS ARTICLE:

- **Nokia**
  www.nokia.com
- **Microsoft**
  www.microsoft.com
- **Google**
  www.google.com
- **Yahoo**
  www.yahoo.com
- **Apple**
  www.apple.com
- **RIM**
  www.rim.com

Iqoncept | Dreamstime.com

Mobile Apps Heat - A Rising Trend of Today

BY JAI C.S.

Millions of Apps are downloaded everyday to mobiles, and millions more are getting developed simultaneously.

What are these apps, and why are they gaining widespread adoption in the business world?

Experience the power of mobile apps…

Apps are end-user software applications that are designed for a cell phone operating system which extend the phone's capabilities by allowing users to perform specific tasks. With the widespread acceptance of mobile technology, there has also been a steep increase in the development of application software that offers simple and effective communication and collaboration tools.

Among the most popular are apps that provide some form of entertainment like games, or apps related to music, food, travel and sports, as well as those that help people find information they need and accomplish tasks, like maps and navigation, weather, news, banking etc. The emergence of this pervasive technology is shifting the way people interact, share and take advantage of the huge sets of material that are generated for the Internet.

This shift in the usage of mobile apps is due primarily to the increasing consumer interest in smart phones, blended along with the participation of Internet players in 'mobile space', as well as the upcoming numbers of application stores. Also, added to all this is the cross-industry services. Every player in this industry is believed to influence how the application is delivered and experienced by consumers.

In a release, Stephanie Atkinson, managing partner and principal analyst at Compass Intelligence, said, "The need to access day-to-day applications from remote locations or from mobile devices, the need to collaborate and share files with coworkers across the globe, the growing demand to have better productivity tools remotely, and lastly the general growth in mobile and remote workers drives the need for remote/mobile applications across businesses and industries."

There is a nowadays a huge opportunity in the mobile applications market. From multiple vendors to wireless service providers to the device manufacturers, all are betting on this increasing culture. Software companies are enhancing their innovations in the telecommunications industry. The biggest challenge today lies in clearly understanding the end-user's needs across different sizes of business and across various industries.

Major players in this industry

Since the opening of the Apple Store, entrepreneurs and other companies have also been trying their luck. Android apps are as well gaining momentum as the choice of several users. With the strong support of Google, they have taken a firm grip ahead of some of the other lead operating systems. The Android Market has sprouted up by 127% since last August, putting it at three times the growth of the Apple App Store, according to the second report released by the mobile security company Lookout and its App Genome Project, which has analyzed more than 500,000 Android and iOS applications since the project commenced last summer.

The Apple App Store in 2010 is said to have generated $1.8 billion in revenue, giving it an 82.7% share of the total market, down from 92.8% in 2009. Revenue for the Apple App Store rose 131.9% from $768.7 billion in 2009. Global revenue for the total mobile application store market in 2010 is said to have increased by 160.2% to reach $2.2 billion, up from $828 million in 2009.

With several options for accessing information while on the go, employees can be productive with Google Apps even when they're not at their desks. At no extra charge, Google Apps supports over-the-air mobile access on BlackBerry devices, the iPhone, Windows Mobile, Android and many less powerful phones. Irrespective of whether one needs a CRM, accounting or project management app, the Google apps marketplace helps one discover, purchase and deploy top web apps that integrate with Google Apps. Google's Android Market reportedly has made the most dramatic advance, with revenue soaring 861.5% for the year. This has enabled the Android Market to take a 4.7% share of global mobile application store revenue in 2010, up from 1.3% in 2009. However, Apple is expected to retain more than half of the market revenue, at least through 2014.

Nokia's OVI Store posted the second strongest growth rate in 2010, with revenue rising by 719.4%, giving it a 4.9% share of the application market business, up from 1.5% in 2009. Research In Motion's BlackBerry App World retained its No. 2 rank with 360.3% growth. The company's share increased to 7.7% in 2010, up from 4.3% in 2009.

Mobile service operators led by Reliance Communications (RCom) and Idea Cellular are betting that applications for mobiles, the new craze, would help them break the glass barrier of revenues from value-added services. Idea Cellular has just inked a deal with Ericsson AB to launch an applications store, Reliance App World. "Twenty per cent of India's existing subscriber base currently pays for applications, which shows the kind of potential the industry has for growing these revenues," said Prashant Gokarn, business head - 3G at Reliance Communications.

Other operators such as Uninor have found in other markets like Pakistan that allowing customers to use the mobile for apps such as remittances and payments has dramatically reduced subscriber churn and built customer loyalty. "In roughly around a week of its launch, despite no commercial promotions, our app store has seen almost 30,000 hits per day," said Ambrish P Jain, director - operations at Idea Cellular.

To hook users, Idea is offering for free 15-20 per cent of the 30,000 apps it has in its store. Idea, whose existing app store products can be downloaded on around 500 models of GPRS-enabled handsets, plans to make available as many as a million apps over time.

Global apps market

Dallas-based researcher MarketsandMarkets is projecting that by 2015 that the global app market will reach $25 billion, up from $6.8 billion in 2010, growing at a compound annual growth rate of nearly 30% between 2009 through 2014. North America was the largest app market in 2009 with 41.6% of revenue. But Asia led the way in terms of numbers of downloads. The researchers project that Europe will be the leading market in 2015, with a 34% compound annual growth rate between 2010 and 2015.

Apple and other OEMs are providing free and simple-to-use development tools for their handsets and are offering developer support programs for training, technical and business support, along with a web-based medium to sell the applications.

Gartner, Inc. recently identified the top 10 consumer mobile applications for 2012. "Consumer mobile applications and services are no longer the prerogative of mobile carriers," said Sandy Shen, research director at Gartner. Money Transfer, Location-Based Services, Mobile Search, Mobile Browsing, Mobile Health Monitoring, Mobile Payment, Near Field Communication Services, Mobile Advertising, Mobile Instant Messaging, Mobile Music, etc., are the top consumer mobile apps that are sought after globally."

Apps have no doubt redefined both usability and interaction on mobile phones, most importantly with the touchscreen devices and the new wave of tablets. But all this extended customer experience and comfort comes at a price, which includes maintenance, development and distribution costs, along with the necessity to rely on app stores for updating. But as mobile connectivity grows, the customer is definitely going to be a winner.

At the Mobile World Congress 2011 in Barcelona, Global Mobile App Awards were give out and the App of the Year on the Apple Platform went to Rovio/Clickgamer/Chillingo for Angry Birds; App of the Year on the BlackBerry App World Platform went to Research In Motion for BlackBerry Messenger; App of the Year on the Android Platform went to Google for Google Maps; App of the Year on the Nokia Platform went to Herocraft & InnerActive for Zum Zum, and the Best Mobile App award went to Rovio/Clickgamer/Chillingo for Angry Birds.

During the fourth quarter of 2010, smartphone sales have been reported to have topped those of personal computers for the first time ever. A total of 101 million smartphones were purchased, compared to 92 million PCs. This accounted for around an 87% increase quarter-over-quarter in smartphone sales, compared to the 3% increase in PC shipments. With the advent of 4G and high improvements in delivery, there is more in store for customers to score well in terms of high end entertainment and experience via their mobile phone.

So what's next?

With the apps market hitting its stride and ready to surge, the pressure is now on the developers and operators, which places a stress on the technology axis. Namely, will it grow or take a curve? The future will tell. A-P

Nvidia Says Chinese May Have Fastest Supercomputer

BY ANURADHA SHUKLA

In recent years, China has aggressively dominated major industries and markets around the world, and recently it has reached another milestone by building the world's fastest supercomputer: the Tianhe-1A.

Unveiled during the Annual Meeting of the National High Performance Computing in Beijing, the supercomputer, built by China's National University of Defense Technology, set a new record of 2.507 petaflops, which is equivalent to over 2 quadrillion calculations in a single second.

Nvidia Corp, which supplied important chips for the supercomputer, reported that the Tianhe-1A is faster than any of the supercomputers listed in the recent Top 500.org published list. Before the machine became fully operational, it required 14,336 Xeon CPU chips from Intel and 7,168 units of Nvidia's Tesla M2050 GPUs. This awesome computing power comes with a price tag of $88 million and would require 4.04 megawatts of electricity to operate all of its 103 cabinets that weigh a total of 155 tons. According to Nvidia, the supercomputer will be used for large scale scientific computation and will be available through an open access system.

How fast is this Chinese supercomputer?

Just how fast is the Tianhe-1A? The machine clocked a speed of 2.5 petaflops, which is a unit of measure used to express a quadrillion operations per second. In practical terms, this is equivalent to a computing power of 175,000 laptops. This is faster than the 1.75 petaflops clocked by the previous record holder, XT5 Jaguar from Cray Inc, which is currently in use by the United States National Center for Computation Sciences at the Oak Ridge National Laboratories. The Tianhe-1A however is three times more power-efficient than the current supercomputers.

Aside from the Tianhe-1A, China currently has two of the top 10 fastest supercomputers in the list, including the Nebulae which clocked a speed of 1.271 petaflops and is currently stationed at the National Supercomputing Center in Shenzhen. In 2002, US-built supercomputers were displaced from the top spot of the list when Japan's Earth Simulator claimed the No.1 position that year.

Reactions and implications

Since 2002, China has started investing heavily in supercomputer technology but has lagged behind the United States and the European Union in this area. China intends to use supercomputer technology for research and simulation for alternative energy, climate modeling, defense, genomics, and seismic imaging. The Tianhe-1A likewise will not be used as a military tactical planning device but will be made available through an open access system. This can help researchers around the world with their requirements that involve complex calculations, such as those required in analyzing geological surveys for oil, protein folding and other such research.

This will make China a bastion for advancing research and sciences in various technologies, a role that was primarily held by the United States for more than 50 years. Some industry experts are seeing this as a brewing supercomputer arms race between China and the United States, pointing out America's previous actions of funneling funds to put the country back in the top spot after Japan's Earth Simulator took the limelight. With the national economy still in dire straits, White House advisers are warning against going head-to-head with China in the supercomputer arena, advising that federal funds should be used for research in putting the country back in the right computing track. A-P

FURTHER READING:

- **Businessweek**
  www.businessweek.com
- **Mashable**
  www.mashable.com
- **Singulariy Hub**
  www.singularityhub.com

COMPANIES MENTIONED IN THIS ARTICLE:

- **Nvidia Corporation**
  www.nvidia.com
- **National University of Defense Technology (China)**
  english.nudt.edu.cn
- **Intel Corporation**
  www.intel.com
- **Cray Inc.**
  www.cray.com

Stratum | Dreamstime.com

Diagnostic Opportunities in Health Sector and Growth Strategies for 2011-12

BY PRIYANKA SHARMA

The APAC region has long been the leader in the manufacture, production and supply of various kinds of pharmaceutical products, as well as high-end diagnostic equipment of the health care industry.

However, seminal studies in health care market trends have shown that the APAC region is passing through drastic changes. Since 2009, there has been a significant change within these very nations that once provided the international markets with life saving drugs. The increasing prevalence of lifestyle diseases such as diabetes and cardio vascular conditions in this area of the globe that not only has some of the largest populations but also some of the highest instances of diabetes (in countries such as India) are now making the APAC market the largest consumer of its own products.

The following are some of the healthcare-sector market trends to expect for 2011 and 2012, considering 2009 as the base year.

The health care market scenario in 2009

Researching into the Health Care Industry, Frost & Sullivan, a reputed study group, found that the Global Healthcare market went through many upheavals in the year 2009. The global economic crisis had a great impact on the health care sector in both the US and Europe. Though things also slowed down in Asia, it was not as significant as elsewhere. The health care market became a nightmare with the larger biotech companies struggling and very high rates of Merger and Acquisitions. Most companies dropped down on the list in valuations and the entire market remained nervous throughout the year.

In the new war between global and APAC markets for health care products, APAC is expected to soon have about 30% of the global market, and by 2015 the projections are that it will hold close to 40%. Asia is certainly in the process of a transition, which has had an impact on most markets. The mature markets such as Japan and Australia have shown significant signs of a slow down. The GDP in these two nations has dropped drastically and this has led to job losses and several portfolios are seeing drastic realignments. Profits are being cut and the margins are drastically lower. Another reason for the poor health care market show in these regions of late has been Medical Tourism abroad.

How is Asia becoming a major consumer of pharmaceutical products?

The major growth option for Asia has been the trend for most US and UE companies to offshore and outsource to Asian production facilities. As Asia continues to be the epicenter of revitalized world economies, the balance of power is seen to be shifting to Asia. The growth in Asia is due to consumption while export is leading development. This has led to APAC becoming the fastest pharma-market as well as the API production epicenter.

Additionally, local governments are emphasizing primary and community healthcare. This is translating into higher consumption of pharmacy products. Be it remote villages in India or the flood-hit areas of Bangladesh, communities are quick to approach the health care centers for immediate diagnosis of conditions ranging from diabetes to AIDs/HIV. The jump in health care delivery to different parts of Asia and the APAC region has been related to the use of mobile technology. This has bridged the gap between gaining meaningful and timely health care support such as in the far-flung islands of Malaya and Fiji.

With deeper penetration in the delivery of health care, there has been a corresponding growth in consumption. This has been another reason for the emerging dominance of Asia as an exploding consumer of pharmaceutical products and diagnostic kits.

Asian growth driven by Western diagnostic developers

The emerging Asian market is now the target for western and European developers of sophisticated diagnostic kits. These producers are targeting the high growth Asian markets of India and China. Both countries have massive populations and the burgeoning middle classes today have the purchasing power to invest in tertiary diagnostic tools, such as diabetes diagnosing equipment. These are advanced technologies in easy-to-use devices. The testing machine draws a drop of blood through an invasive needle and indicates the level of insulin on the built in strip. This helps the consumer or the primary health care giver to identify diabetics and thus start the patient on the required health care routine.

The scenario in China is no different except that the target population is a growing and aging one that has greater spending potential. South Korea too has a proven market of middle class willing to spend on clinical testing. Thus the three most populous countries of India, China and Korea are defining the consumer related trends in the health care sector.

An after-effect of this type of consumerism is that it is creating a demand for novel technologies to manage rising awareness in patients and their search for innovative methods to manage them. These have led to greater entrepreneurial developments, and as the numbers of such products increase so do the number of consumers for such products. The demand for products is driving innovation and the development of new technologies is driving the manufacturing sectors considerably.

The health care market trends for 2010-12

The world markets for the health care sector will remain stagnant while showing partial recovery. However, the growth will be predominant in Asia. This is due to several reasons, with the main reason being the expiry of major patents. The Merger & Acquisition scenario will be low in the West while Asia will begin its restructuring phase. The focal growth point for Asia is its market as an outsourcing hub. Major drivers of the markets will be 5Ps of Prevention, Preemption, Personalization, Predictive and Personal Responsibilities.

Thus the three most populous countries of India, China and Korea are defining the consumer related trends in the health care sector.

The growth strategies for APAC manufacturers in this industry need to focus on better research and development, and use a value system to educate and integrate newer technologies for delivery of healthcare in the region.

Better products need not necessarily mean greater consumption. That the APAC region is emerging to be a market leader in consumption is truly alarming. However, these statistics need to be viewed in a different perspective. The region has dense population and hence consumptions patterns of small percentages too translate into greater volumes. However, the fact remains that indiscriminate consumption is fast emerging as the main cause of health problems in the region. The region has for long had a balance consumption reflecting the ecosystems. The generalized trends of consumption is largely contributing to the inversion of the food chain and is resulting in lifestyle pattern defects and related socio-economic as well as personality growth issues in the region.

We need to adopt more prudent consumption patterns that will allow us to enjoy development without the associated evils of life threatening diseases such as diabetes and cardio vascular diseases. A-P

Continued from Page 19

reserves – and the allocation of raw material linkages. However, the biggest challenge for the company is to win the trust of the local populace, and allay their fears. The company has to make them believe that the steel plant will not take away their livelihood but provide them with better opportunities and favourable development of the region.

The long wait for the clearance of the project in Orissa seems to have not dampened the spirit of the company to do business in India, as Asia's second largest steelmaker has set in motion its second proposal in the country. V P Baligar, principal secretary for commerce and industries in Karnataka, said that POSCO has selected Halligudi in the Gadag district of Karnataka to build its proposed six million ton plant at an estimated investment of about 7 billion U.S. dollars. Reportedly, the company has already applied for a captive iron ore mining lease and has sought 3,000 acres for setting up the plant. A-P

Dmitry Fisher | Dreamstime.com

Chinese Herbal Cigarettes

Same Tobacco in New Packaging?

BY VINTI VAID

The consumer market for cigarettes is on the rise and so are the varied options.

Since most countries see nicotine containing cigarettes as being harmful to the smoker, several manufacturers and fly-by-night operators are using traditional Chinese knowledge of making herbal cigarettes that are free of nicotine-containing tobacco.

To those who enjoy smoking, Chinese herbal cigarettes present an interesting option. Many who read about these healthy (!) tobacco-free cigarettes are tempted to try them. Herbal cigarettes are traditionally made from special Chinese herbs and time-tested formulations. These are known to trigger chemicals to help you quit smoking, claim many herbal cigarette makers. They also claim that these cigarettes do not contain nicotine or tobacco.

There is also the claim that the herbal aromas will in fact detoxify a regular smoker from all the nicotine previously stored in the body. This will apparently help those in overcoming addiction. Following this therapy for a few weeks, claim manufacturers, one will loose the urge to smoke a nicotine or a tobacco rich cigarette and finally overcome the addiction to smoking. To make the product more interesting, most of these manufacturers offer these herbal cigarettes in several flavors or aromas. The most popular are menthol in rare, medium and high aromas. These are available in different sizes and in packs of 10 or 50.

The truth behind herbal cigarettes

Observing the growing popularity of herbal cigarettes not only in China but globally too, researchers at the China Center for Disease Control and Prevention chose four parameters, or markers, that would define how nicotine is delivered between herbal and nicotine containing cigarettes. The study group consisted of 135 herbal cigarette smokers and 143 regular tobacco smokers.

After prolonged tests that included testing the urine samples of participants as well as evaluation of questionnaires, they found that there existed no significant differences in the levels of all four markers - there were two markers for nicotine and two classes for carcinogens.

The study found that as the level of the nicotine intake increased, so did the level of carcinogens. The more the nicotine smokers took in, the higher was the carcinogens presence. The study also established that the smokers who switched to herbal cigarettes for better taste were 47%; another 24% switched as they believed herbal cigarettes were healthier. However, the most significant impact was that the number of herbal cigarettes smoked each day increased substantially.

Verdict of the study

The study reiterates that adding herbs to the cigarettes in no way removes the nicotine product from regular tobacco products. Cigarettes are smoked essentially for the addictive nature of nicotine. These chemicals cause cancerous cells in the body due to the continuous release of harmful drugs in the region of the trachea and the lungs. Hence, most smokers are susceptible to cancer in the mouth and the lungs.

In conclusion, the Chinese cigarette makers are being misleading and unfair by using the term 'safe' to promote herbal cigarettes because nicotine continues to be present in them. A-P

Aero India 2011

A Grandiose Show of Air Power

BY SHAMILA JANAKIRAMAN

In a country where cricket is religion, the only thing that could divert attention away from it would be a bigger event.

Forget attracting crowds away from the television when a live or even old match is telecast. Yet this event in question brought admirers when a cricket match was happening in the same city.

The record breaking Aero India 2011 Air Show was one such grand expo. On the 9th of February, 2011, the event was inaugurated by the Indian Defense Minister A.K.Anthony and it proved to be more massive than the Aero India 2007, setting new standards.

Attracting people from defense and aerospace companies across the globe, as well as media and interested viewers, the venue for this remarkable event was the Yelahanka Air Force Station in Bengaluru. India is fast emerging as a chief contender in aerospace and defense research, development and manufacturing, besides being a huge market for purchase of related products and services. This fact was corroborated by the presence of all major suppliers in this arena.

Being South Asia's major air show, Aero India 2011 held its own in all aspects, including the spellbinding fly-past, aerobatic formations by the Indian Air Force (IAF) aircrafts, which spewed tricolor smoke representing the Indian flag, and the grand display of IAF's fighters and helicopters. Not to mention the show of air power by international participants.

India's military might was showcased at the eighth edition of the biennial aerospace and aviation trade expo. A case in point was made by the Defense Minister A.K.Anthony, who said that the Indian government was keen on modernizing the security forces to maintain peace and stability in the region. This is naturally an important concern for a country growing in economy and international prominence.

"Our Government is steadfast in its resolve to meet any challenge. We are, therefore, committed to ensure rapid modernisation of our armed forces and equip them with state-of-the-art systems, equipment and platforms. Our current defense expenditure – 2.5 per cent of GDP, is consistent with our projected security requirements and is bound to increase over the next two decades," said Anthony, further reiterating the importance and growth of the defense requirements of India.

The show

Aero India 2011 was organized by the defense ministry and the Confederation of Indian Industry (CII). The five day event showcased defense wares from about 675 exhibitors encompassing 380 companies from 29 countries, along with 295 domestic firms. Suppliers were keen to display their new technologies and products to both the Indian and international markets, using the event as a marketing platform.

Ajay Bhaskar | Dreamstime.com

The five day event showcased defense wares from about 675 exhibitors encompassing 380 companies from 29 countries, along with 295 domestic firms.

About 75,000 sq.m. was designated for displays in this show, a significant increase when compared to the 45,000 sq.m. allocated in 2009. Also, eight countries had set up dedicated pavilions. Aircrafts displayed at the show were given access to 12 hangars at the Indian Air Force's base in Yelahanka, along with seven temporary hangars.

The popular show offered huge business opportunities and served as a platform to initiate powerful partnerships. The event attracted several thousand business visitors and catered to nearly 200 business-to-business meetings.

Thunderbirds in the sky

Air shows held periodically in cities across India attract huge crowds of adults and children. A show of this magnitude is sure to rope in more visitors. The first three days were earmarked for business meetings with the weekend days exposing the grandeur of the IAF aircrafts and others.

The fly-past started with Mi-8 formations, with the Indian tricolor fluttering along with flags of the Indian Air Force and the Defense Research and Development Organisation (DRDO).

The sky was a stage on which IAF Surya Kirans, Sarang and other aircrafts waltzed their way. The show highlighted the uniqueness and capabilities of 51 aircraft types, both in static and aerial displays.

Red Bulls, a professional aerobatics team from the Czech Republic, gave an impressive aerial performance besides interacting with the Surya Kiran pilots. Equally impressive were the Surya Kiran Aerobatics Team in their gleaming Kiran Mk-II aircrafts, who made the sky their canvas and drew smoke patterns, including a heart shape that reminded visitors about Valentine's day.

The inaugural day saw aircrafts looping, rolling and somersaulting in mid-air, maneuvering their way into visitors' hearts and raising cries of joy and delight among them. Tejas, the indigenously developed Light Combat Aircraft from India, was surely the hero. It flew for the first time in full public view. The smallest fighter aircraft in the world, Tejas made a vertical climb and did a belly turn in front of the podium, making every Indian on hand proud.

Five Jaguars flew in a V-formation (or arrow head formation) while the Sukhoi 30-MKI flew in trident formation besides displaying their short take-off prowess. Boeing's F/A, or Super Hornet, the Gripen from Saab of Sweden and the Rafale from French aircraft manufacturer Dassault and Eurofighter Typhoon also glistened the sky with myriad maneuvers.

India's gain

India's Mark II of the Tejas aircraft, an indigenously developed Light Combat Aircraft, is expected to be ready by 2015, said the Indian defense minister, adding that India will collaborate with Russia to develop fifth generation fighter aircrafts. The IAF is setting the stage to buy Medium Multi-Role Combat Aircrafts (MMRCA).

With self-reliance being India's motto in defense equipment, the nation had to equip the armed forces with defense equipment, systems and platforms. This opened up avenues for joint ventures, public-private partnerships and licensed production to enable the transfer of technology. The defense offset policy now allows foreign defense contractors in civilian aircraft projects, which also facilitates the entry of international original equipment manufacturers.

This expo is expected to feed the huge Indian defense and aerospace market, which is expected to leap to $150 billion by 2030. Dealings for the supply of medium multi-role combat aircrafts formed the main highlight of the air show event, along with many other deals. Major international suppliers are vying for a part of the great Indian defense deal pie, as proven by the increase in the number of participants this year.

Factoids

- The five day event showcased defense wares from about 675 exhibitors, encompassing 380 companies from 29 countries, along with 295 domestic firms.
- The Indian defense and aerospace market will reach USD 150 billion by 2030.
- The next Aero India 2013 will be held between February 6th and 11th, 2013.

According to Air Chief Marshal PV Naik, the contract for the Medium Weight Multi-Role Combat Aircraft, or MMRCA, valued at $11 billion, will be signed by September 2011. There are six supplier contenders, and five of them even put up their aircrafts for aerial displays, hoping to garner the sizable contract by impressing Indian defense experts. This huge deal would be for the procurement of 126 MMRCAs to replace the aging MiG-21s.

The MMRCA deal

The six contenders are Boeing F/A-18 Super Hornet, Lockheed Martin F-16, Moscow-based United Aircraft Corp's MiG-35, French Dassault Rafale, EADS Eurofighter Typhoon and Sweden's SAAB Grippen.

Eurofighter Partner Companies held talks with Indian counterparts to engage India as a production and development partner for the advanced swing-role combat aircraft.

Bernhard Gerwert, CEO of Cassidian Air Systems and Chairman of the Supervisory Board of Eurofighter GmbH said, "Our ultimate objective is to win India as a key partner, co-developing and co-producing future upgrades and enhancements, new sub-systems, software, etc."

India is expected to become a manufacturing and engineering partner as part of Eurofighter's industrialization strategy. A future supplier network is envisioned which will include India into the Eurofighter supply chain and become home to the Eurofighter Typhoon. Eurofighter Typhoon is a strong contender for India's MMRCA choice, as it is a modern multi-role combat aircraft with an airframe made of over 80% composites, including materials like carbon fiber composites (CFC), glass-reinforced plastic, special alloys, etc.

At Aero India 2011, Russia exhibited various types of weaponry and was represented by MiG, Sukhoi, Almaz-Antei and Engineering Design Bureau, according to Rosoboronexport sources. Russian fighter jets MiG-35 and Su-35, the Yak-130 combat trainer, two versions of the Il-76MD transport plane (with different engines), the Il-78MK aerial tanker, MiG-29K and MiG-29KUB naval fighters and the Be-200 amphibious aircraft were on display, as well as several helicopters and air defense systems.

If the MiG-35 wins the tender, Russia will be transferring all key technologies to India's Hindustan Aeronautics Ltd., besides providing assistance for the production of the aircraft in the country.

After the air show, U.S. Defense major Northrop Grumman was requisitioned for information regarding the MQ-4C Broad Area Maritime Surveillance Unmanned Aircraft Systems (BAMS UAS) by the Indian Ministry of Defense for use by the Indian Navy. Indian Navy may be adopting the MQ-4C to complement surveillance operations conducted by Boeing P-81 aircrafts for maritime surveillance. The company's MQ-8B Fire Scout will serve the Indian Navy in military roles, homeland security and law enforcement.

If Sweden-based Saab Gripen bags the MMRCA deal for the fighter jets, then the company promises full, true tech transfer. The full Transfer-of-Technology (ToT) will include all critical sub-components, including AESA radars. The company also announced plans to open a Research and Development center in India, which will go into operation in five years with 300 to 500 Indian engineers. India will become a design and manufacturing hub besides being a large long-term market. Saab is supplying HAL with components for the export variants of HAL Dhruv Advanced Light Helicopters supplied to South America.

Tata Advanced Systems Ltd inked an agreement with US-based Lockheed Martin to form a joint venture company, Tata Lockheed Martin Aerostructures, to build aerostructures for the C-130 aircraft produced by Lockheed Martin.

Tata group is striving to bag orders that the selected MMRCA supplier will have to place with local vendors upon winning the $11 billion defense contract, which will amount to 30% of the total contract value. Tata also joined hands with Sikorsky Aircraft Corp and United Technologies to make S-92 helicopter cabins in India.

Aero India 2011, which took place from the 9th of February to the 14th, brought to the limelight several aerospace industry players and distinctively appealing flying crafts and other associated equipment. About 75,000 interested visitors thronged the venue on the last day, even missing the ICC World Cup warm-up match in Bengaluru to witness major aerospace companies display their air power. Aero India expositions will be considered a sure-fire opportunity creator for global aerospace industries of the world well into the future. The next Aero India 2013 will be held between February 6th and 11th of 2013.

India is fast emerging as a large military spender with a huge defense procurement budget. The capabilities in automotive manufacturing, low-cost manufacturing facilities and offset policies are advantages available in India. Many Indian companies like Tata group are aiming to create a global aerospace brand by collaborating with international aerospace companies, said John Siddharth, industry analyst, aerospace and defense, for South and West Asia at consulting firm Frost and Sullivan. A-P

Stepan Olenych | Dreamstime.com

India's Growing Defense Industry

BY ANSHU SHRIVASTAVA

India is one of the major importers of defense equipment, and it depends highly on foreign suppliers to fulfil the requirements of its defense forces.

Currently, imports amount to nearly 70% of India's total defense expenditure. While the country has been on a quest to become militarily self-reliant in producing equipment and systems that feature the indigenous "Made in India" tag, it has thus far failed to achieve strategic autonomy. A plethora of reasons have hampered the creation of a strong industrial base for the defense sector, not the least of which has been the half-hearted policies of the Indian government that have prevented private players from investing in this crucial sphere.

In a bid to significantly reduce dependence on defense imports, encourage private players, and create world-class indigenous products, India's Defense Minister, A.K. Antony, introduced the first Defense Production Policy (DPrP) earlier this year. The policy has taken into consideration the experience of procurement agencies as well as the feedback received from both Indian and foreign defense industries. Expected to herald an era of record industrial growth in the military arena, this new policy provides ample opportunity to both the public and private sectors to manufacture products to meet Indian defense requirements. "The policy has the potential to effect a positive change on industry's engagement and involvement in defense production," said Satish K. Kaura, Co-Chairman of the National Defense Council for Confederation of Indian Industry (CII).

The Indian defense industry is still in its nascent stage. The market is highly lucrative but requires huge investment to make India self-reliant in defense production. For this to happen, transfer of critical defense technology, less bureaucratic hurdles and policy flexibility are required.

Following India's independence, successive governments kept private players out of defense equipment production due to the strategic and sensitive nature of the sector, and from the outset it came under the purview of Indian Government. The first Industrial Policy was outlined in the Industry Policy Resolution of 1948 and henceforth, defense production was the prerogative of the public sector. The 39 Ordnance Factories (OFs), 8 Defence public sector units (PSUs) and 50 Research & Development laboratories were relied on to fulfil the demands of the defense forces. The participation of private companies was limited to sub-contractors and ancillary industry, and they were barred from entering the production arena.

The country opened up its economy in the early 1990s and thanks to economic reforms, private sector started flourishing, helping to write India's economy success story. A decade later in May of 2001, the Government of India decided to open the defense industry sector to private companies. The Ministry of Defense (MoD) allowed private sector participation of up to 100% and foreign direct investment (FDI) permissible up to 26%. Defense-related items were removed from the reserved category and transferred to licensed category. However, most of the private players preferred to stay away from the high-tech defence production sector due to the necessary high investment costs and the abysmal performance of government owned units. Some companies such as L&T, Tatas, Mahindra and Mahindra ventured into this industry, but the overall response was lacklustre.

In 2005, a committee recommended that selected private sector companies should be given permission to build major defense platforms such as tanks, aircraft and ships. A couple of years later in 2007, another committee examined over 40 private sector companies, recommending 15 of them for Raksha Udyog Ratna (RUR) status. It was reported that Tata Motors, Larsen and Toubro, Tata Power Company, Mahendra and Mahendra, Godrej and Boyce, Bharat Forge, Infosys Technologies, Wipro Technologies and Tata Consultancy Services were cleared for RUR status. Once awarded, RUR would have granted these companies a position equal to DPSUs and OFs.

However, this year in February, the MoD announced that it was scrapping this proposal, citing small private sector companies as being opposed to the granting of RUR status, since they would be ineligible for the same such status. According to a Business Standard report, "MoD sources suggest that this decision was prompted less by opposition from private sector companies and more by pressure from the DPSU trade unions, which feared job losses from business flowing to private sector companies."

In 2005, the MoD formulated a defense offset policy to contribute to the development of the country's domestic defence industry. The primary objective of this policy was to build India's defense industrial base. This policy permitted foreign vendors to discharge their obligations either via the execution of defense exports of Indian items and services or via investments in India's defense infrastructure. Moreover, in order to implement their offset obligations, they could also select Indian firms in consultation with an industry associate of their choice. Later in 2008, the MoD amended the guidelines after studying international practices. The revised policy included a list of products which would qualify for the discharge of offset obligations; removal of the requirement for private industry to obtain industrial license to participate in offset programs unless stipulated by the regulations of the Departmental of Industrial Policy and Promotion (DIPP); exemption of acquisitions under fast track from offset obligations; and more.

Under the new Defense Procurement Procedure (DPP), a number of new areas in offsets have been included in the first defense production policy. This has been done to boost defense production both in the public and private sectors. DPrP is seen as an attempt to encourage private players to set up defense business units in the country. It aims to significantly slash the need for defence exports by achieving substantive self reliance in the design, development and production of equipment, weapon systems, and platforms required for defense in as early a time frame as possible.

"The main thrust of the DPP is to bring about a change in the orientation and to ensure that most of the weapon systems and platforms required for the nation's security are made in India," said Raj Kumar Singh, defense production secretary, in an interview given to a publication. "Gradually, we intend to make – or integrate – most of the platforms here and reduce our dependence on imports."

This new policy also aims to enhance the potential of small to medium enterprises (SMEs) in indigenisation while broadening the defense R&D base of the country. Industry analysts predict that SMES will play a key role in the defense industry and achieve the levels of vertical integration that the developed defense markets such as the US and Europe already have.

The DPrP states that preference will be given to indigenous design, development and manufacture of defense equipment. Singh said that under this policy, "the Indian government has short-listed four domestic companies to develop and manufacture next-generation infantry combat vehicles for the Indian Army."

Foreign direct investment is still limited to 26% despite a vociferous call to hike the FDI limit and make it 49%. The cap on FDI makes this sector an unattractive proposition for foreign vendors. Last year in November, The New York Times reported that American officials believe that Indian rules limiting foreign contractors to minority stakes in joint ventures, and requirements for them to spend 30% of any contract money on work in India, are too onerous.

Industry experts note that the increase in FDI would help secure the transfer of key technologies to India, as well as boost the foreign capital investment available to them. Recently, the Department of Industrial Policy and Promotion suggested the raising of FDI cap to 74% in the defense sector, and according to reports, a group of ministers are considering the proposal to increase the FDI limit from the present 26 per cent to 49 per cent to attract more foreign investors in the country. Singh said that the "aim in limiting foreign investment to 26% is to develop defense technologies within the country, and if the FDI is hiked, foreign firms only will supply defense products to India and local firms will still be dependent on overseas suppliers."

However, Defense Procurement Policy-2011 has opened the civil aerospace and internal security sectors to foreign defense suppliers, whereas these areas were previously off-limits for them. And in February, at the inauguration of the Aero India 2011, AK Antony said that the Indian government has appointed a committee to explore the possibility of throwing open more areas to foreign arms vendors to meet their contractual obligations.

During the period of 2010-20, foreign vendors are expected to invest over 30 billion US dollars in the Indian manufacturing industry as part of their offset obligation. American contractors have inked agreements to create joint ventures with Hindustan Aeronautics Limited (HAL), a DPSU. In the year 2007, Boeing signed a $10 billion deal with the company. For Boeing's 777 commercial jets and for planes it's building for the Pentagon and India, HAL is making parts. Last year in November, the first Sikorsky S-92 helicopter cabin made in India by Tata Advanced Systems was unveiled.

The Indian defense industry is still in its nascent stage. The market is highly lucrative but requires huge investment to make India self-reliant in defense production. For this to happen, transfer of critical defense technology, less bureaucratic hurdles and policy flexibility are required. A-P

Continued from Page 27

million smart grid project.

Verizon also has a partnership with Current Group and has smart grid-related alliances with meter manufacturer Itron and Ambient Corporation, which offers a product that extends Verizon Wireless connectivity to end user devices via Wi-Fi, powerline carrier, Zigbee or WiMax.

Challenges are plenty for smart grid companies. To support the goal of smarter energy management, it will be critical for utility companies to upgrade their infrastructure to support two-way communication with customers. In the past few years, the definition of Smart Grid was centered on utilities involved in power generation and distribution. In the future, smart grid will be associated with more utility services.

A great deal of talk may not necessarily assist smart grid vendors. The industry needs strong strategies to support future demands. Industry is looking to create virtual power plants, for example, and such exciting projects are underway to support this model today, with integrators standing ready to ramp it up.

Home network connecting power utilities will be the largest opportunity for smart grid industry. Some telecom operators already supply utilities with wireless and wired connectivity to substations. It could be a natural fit for telecom operators to offer upgraded connections to those and other elements of the power distribution network. For instance, AT&T offers home networking capabilities in association with its U-verse multi-play offering, and Verizon has done the same with FiOS.

But some utilities may opt to use a single network to upgrade their connectivity and for communication with customers. Telecom service providers may or may not play a role there. If power utilities and operators cannot work together, it will be a big loss for telecom investors and customers. In some countries, both power and telecoms are owned by governments. In some places, the same groups are into offering both these services. Smart grids will ensure more cost effective services to customers, and it will become an essential tool to ensure more productivity in the future. A-P

Summary:

Smart Grid is now in the implementation stage. During the deployment stage, companies need to exercise several precautionary measures. Smart Grid offers several opportunities, but challenges are also increasing. The world will soon see that smart grid is benefiting more segments in the near future.

COMPANIES MENTIONED IN THIS ARTICLE:

- AT&T
- Verizon
- Bloomberg
- GE
- Global Data
- Current Group
- Pike Research
- Ambient Corporation
- U-verse
- FiOS

Growth of Home Automation Industry in Asia-Pacific

BY SHAMILA JANAKIRAMAN

Almost anyone might wish to have a home like that of Harry Potter's friend Ron, in the Potter mega-movie where everything from cooking to cleaning to washing is done by magic.

Yet in present times, we may be able to settle for a fully automated home. People need not worry about wasting power, switching on lights, audio systems or controlling the temperature. Such is the power of home automation techniques now available far and wide.

Security, temperature control for both summer and winter, switching on water heaters, microwave ovens, or any device is made possible by an automated system. Such systems increase the value, safety and energy efficiency of the home environment. Washing machines and water heaters are home automation products too.

The basic features being simple, these systems are easy to operate. Previously cost prohibitive and affordable only for the rich and influential, now simpler systems at affordable prices are also available in the market. A single button can control many events and some specific activities are menu-driven, which allow control of audio systems, lights, and operating domestic robots.

Full automation does not mean control only in person. Most systems can be accessed and controlled remotely via the Internet or through telephone by users. These systems can be expanded further to include the pool, spa, irrigation controls, window treatments, multi-room audio systems, home theater controls, access control and video surveillance, according to OMEIO International Pte Ltd, Singapore.

Implementation

Home automation, like building automation, deals with specific automation requirements of private homes. It ensures that automation techniques are installed suitably for the comfort and security of its residents. Most techniques used in building automation, such as light and climate control, control of doors and window shutters, security and surveillance systems, etc., are deployed in the home environment also.

When drawing up the plan of a new house, plans for the home automation systems should also be incorporated. Control wires required for the system have to be provisioned before the interior walls are constructed. These wires connect to a controller which will control the home environment according to settings.

It makes it easy to install the automation system while constructing a house, as walls, outlets, etc., are accessible and design changes can be incorporated according to requirement. Wireless systems reduce wiring changes and charges. This must be adapted to if home automation is to be done in an already constructed house. Communication is effected via existing power wiring, radio or infrared signals with a central controller. Network sockets can be provided in each room like in AC power receptacles.

The home automation system, or domotics system, comprises hardware controllers or software controllers, sensors and actuators. A centralized controller is used to control all devices or multiple intelligent devices, which may be distributed throughout the home to provide necessary control.

In highly sophisticated systems, detectors can sense a person entering the room, find out who it is and adjust the temperature, lighting, music, etc., according to their preferences for the time of day, day of week and a multitude of other factors.

When a house is not occupied, as in the morning when children leave for school and parents leave for work, the system goes automatically into energy saving mode, switching off air conditioners and lights, which can be switched back on automatically at the expected time of arrival of any occupant.

Also automated tasks include maintenance of inventory of products in the pantry or fridge via Radio Frequency Identification, or RFID tags. A shopping list can be generated by the automation system, which keeps tabs on the consumption. This guides the user to replenish contents.

In home automation there are some basic practical uses such as in fire and burglary prevention. When an alarm set for this purpose detects fire or smoke, the system makes lights blink in all parts of the house to alert occupants. Also it puts off entertainment systems so as to eliminate distractions, effectively making people alert. A burglar alarm can also be made to work in a similar way.

Other day-to-day tasks taken care of by home automation systems are control of multi-media home entertainment systems, automatic plant watering, and pet feeding systems.

Automatic detection systems work as detection sensors to detect intrusion, movement, etc. Sensors can also be used in magnetic contacts in doors and windows, besides providing sensors for glass break detection and pressure changes. Also fire, gas leaks and water leaks can be detected using sensors.

Switching on a coffee maker, closing the garage doors or starting the water sprinkling system to water the plants and lawn are also possible through remote use of home automation systems. Home automation includes centralized control of lighting and HVAC, comprising heating, ventilation and air conditioning. All this ensures convenience, comfort, energy efficiency and security.

Asia-Pacific market

It was revealed by a survey that the Asia-Pacific home automation services market will grow fast but will exhibit uneven market development. Japan and South Korea will lead in the technology area. Australia and New Zealand show great development potential, as most single-family homes need higher levels of home security. India and Malaysia were found to be emerging as major contributors to the regional home automation services market. More Korean companies were found to be involved in home automation products when compared to Japan.

The region's home automation services market will grow owing in particular to the fast development in high-speed broadband connections, home networking and 3G. This is expected to take the market growth to over USD 500 million by 2011, according to the survey. Japan, South Korea, Australia and New Zealand will lead in this field. Broadband service providers and mobile operators will leverage this scenario to enhance their ARPU. China, Taiwan, Thailand and Singapore are potential markets with the need for more customer education.

Hong Kong-based Home Touch specializes in creating intelligent buildings and villas. The company ensures an eco-friendly intelligent solution, providing their services to offices, hotels, educational institutions, hospitals, entertainment centers and homes. Serving the Asia Pacific region, they have implemented projects in China, Malaysia, Vietnam, Singapore, Brunei, Indonesia and even the Middle East countries.

Australian company MITHO introduced a home automation system interface which features a 4.3 inch touch screen LCD display that allows full-screen navigation through menus in ways similar to a handheld computer. Color codes to indicate various functions are used making the interaction simple and easy. The system incorporates a programmable logic system to manage electric automations in devices for scenarios, lights, openings, irrigation, curtains, load control and heat regulation.

Home automation control was made more hi-tech by the release of an iPhone app which allows control of all installations via the user's iPhone. Nullriver's Haiku synergizes HAI's home automation controllers with iOS's user interface. HAI, a company based in the United States, offers solutions ranging from utility smart grids to home automation products.

Haiku offers a home interface that can be used from anywhere in the world conveniently and easily, leveraging the operating system's touch interface and helping users change any setting at home easily. Users can change the thermostat setting, control lights, or the security system by just a few taps on the iOS device. The interface is both intuitive and quickly responsive. Additionally, the interface is customizable via the Favorites tab icons. The Status tab gives the security status for each area, thermostat statuses, auxiliary sensor statuses, and it also highlights messages or insecure zones.

Using the iOS powered phone even at a considerable distance, users can set temperature, humidity, date, time and other values using the interface controls. The camera tab also allows viewing of footage from cameras placed at home. The entire home is under control of the master even if they are away from the site, thereby enhancing security as well.

Home Automation Companies

> **Honeywell**
www.honeywell.com/securitysouthasia

> **MITHO**
www.sfere.com.au/bpt/mitho.htm

> **Home Touch**
www.hometouch.asia

> **OMEIO International**
www.omeio.com

> **Home Automation Systems**
www.homeautomation.in

Valerijs Kostreckis | Dreamstime.com

Future trends in Asia-Pacific market

A survey conducted by In-Stat entitled, "Digital Home: Asia/Pacific Consumer Adoption and Perception" covered respondents in 6 countries, including Australia, China, India, Japan, Singapore and South Korea. The survey was aimed at finding interest levels and current usage of broadband Internet connections, home networks, various digital home client devices and home network applications among Asia/Pacific consumers. This is expected to highlight future market scenarios for such products.

About 81.7% of those surveyed had broadband connections at home. Homes with broadband and those with a home network are lucrative customers for digital home devices/services. Also 40.2% respondents used network routers for their home network and another 39.0% expressed plans to go for home networking routers soon. The tasks that were running on home networks were PC inter-connection, broadband sharing and printer sharing.

Survey results also showed that home automation systems have only been implemented by 14.4% of homes, however. Although there was a paucity of products in 2006 when the survey was conducted, owing to the developing stages of the home automation market, about 46.5% of respondents expressed interest in such systems and were even ready to spend between USD 200 to USD 1,000 on them. This is indicative of a growing market, opine experts.

Advantages of home automation

The advantages of lifestyle enhancing home automation systems are many, especially in a fast-paced life as that of present times. Besides, managing hectic routines, remembering even small details like switching off lights and switching on the security system have become increasingly difficult. Technologies are giving a helping hand in this respect. Home automation does just that by bringing all gadgets together to be managed easily.

This is a fast growing concept in the Asia-Pacific region due to the burgeoning techno-savvy population. Better economic conditions are further fuelling the growth of this market.

The advantages of convenience, comfort, reduced energy consumption, safety, security and a one-touch point control for the entire home cannot be passed up by many. All these factors serve to increase the penetration levels of these systems anywhere in the world. This in turn will boost the potential of the home automation market.

These systems are used in small office spaces and other establishments along with an increase in awareness about the accruing benefits offered by these systems. The home automation market is poised for constant growth with almost no likelihood of a slowdown in the near future. If companies can cater to the needs of customers by customizing solutions for the affluent and designing simpler, less expensive models for smaller homes, they will be able to make hay while the sun shines in this evolving industry. A-P

FURTHER READING:

- **Home Automation Trends in Asia**
www.in-stat.com

Continued from Page 29
will eventually outpace and exceed that of more developed countries in the West.

Asia-Pacific companies are expected to put in more effort into improving their IT capacity to sustain long-term strategic growth. These companies will rely on their information and communication technologies to serve as their backbone system in establishing the means to push their products and services to the market. These strategies will include building more dynamic websites, automating back-office functions, improving after-sales support, and adopting social media technologies.

With a shift in their predominant focus from cost cutting and efficiency to business expansion, Asia Pacific companies are now ready to invest in information and communications technologies to achieve long term growth, adopt innovation and improve customer experience. A-P

FURTHER READING:

- **Gartner**
www.gartner.com
- **Network Asia**
www.networkasia.net
- **Datacenter Dynamics**
www.datacenterdynamics.com

COMPANIES MENTIONED IN THIS ARTICLE:

- **Ozone Media**
www.ozonemedia.co.in
- **IDC**
www.idc.com
- **IBM**
www.ibm.com

Hi-Tech Adds Glitz and Glamour to Movie Production

BY SHAMILA JANAKIRAMAN

Movies have been a part of popular culture for more than 100 years.

Essentially, the movie is a photographic medium which utilizes electronic and computer technologies to the fullest extent possible.

Movies are visions of culture or of place or community aside from being a popular entertainment/art form and a major industry in almost any country. They also serve as a powerful communication medium to highlight the plight of weaker sections of society, and as an eye opener for those behind the velvet curtains to the realities of life. Language is no longer a barrier across cultures, as most movies come with sub-titles or are dubbed to regional languages. Thus even an Indian movie can become famous in Japan.

At one time only movies without audio were possible. In the era of silent films, cameras and projectors were equipped with electric motors to get constant film speed. Studios used arc floodlights and mercury vapor tubes, which later advanced to tungsten floodlights with reflecting surfaces. The early motion pictures were static shots that showed an event or action without editing or use of any cinematic technique. Now movies filmed during night are made to look like daytime scenes and vice versa.

Films are comprised of a series of individual images called frames. When viewed in quick succession, they produce an illusion of motion. Persistence of vision removes the jerks between pictures and the motion is perceived via a psychological effect known as beta movement. The concept of persistence of vision was known to the ancient Romans and Chinese. The phenakistoscope used this principle, where a series of pictures were moved to create an impression of a moving body.

To make movies commercially possible the basic technical requirements were a bright source of light for the projector, photographic film and cameras. The light was produced by gaslights, electric arcs and later by electric lamps. In 1889, George Eastman's flexible film became popular, making it possible for a long story to be recorded on a continuous reel of film. Soon Thomas Edison and his assistant, William Dickson optimized the motion picture camera and introduced the sprocketed film, which helped control the film position, thereby eliminating jerkiness. Soon a motion picture projector was made which magnified the moving picture on a screen, thus allowing large groups of people to view it. Still, audio was absent up to the early 1920s, and music orchestras were used to play music in the movie hall.

Regissercom | Dreamstime.com

In animated movies, nearly 65,000 pictures are used with around 12 pictures making up a one-second duration scene.

Later that decade, silent movies gave way to sound movies, ad electronics became more important in movie-making. The use of microphones, amplifiers and loudspeakers was critical in giving an authentic feel to video. Each film now came with a sound track of speech, music and sound effects that were in sync with the action on screen, and such films were called talking pictures, or talkies, but they lacked natural color. Soon black and white films gave way to color films, helping to draw viewers away from television, which remained in black and white till the 1960's.

Neon and colored lighting, projection systems and sound systems added to the entertainment. The invention of an editing machine called Moviola further enhanced movie production. Multi-track sound, stereoscopic sound, cinemascope and widescreen formats, along with magnetic recording and Dolby noise reduction techniques, accentuated movie-making and cinema presentation.

Film schools cropped up in movie-loving societies, and many enrolled to learn the nitty-gritties of film technology beyond acting and direction. The introduction of digital technology brought about even greater changes from the 1990s to the 2000s.

Then came animated movies, hi-tech extravaganzas and digital movies. Digital movies could be stored and reproduced perfectly with no degradation as occurs with film reels and they could be easily distributed. Also the cost of producing digital movies was less than celluloid ones, the only disadvantage being the high cost of the equipment required.

In animated movies, nearly 65,000 pictures are used with around 12 pictures making up a one-second duration scene. Backgrounds are kept constant and only actions of characters are featured on clear acetate film or cell through which the background is visible. Depending on the duration of scene, the number of pictures to be drawn is calculated. Nowadays the use of computer-generated animation has reduced the number of personnel and manual drawing efforts, besides introducing special effects in the animated movies.

3D movies were a craze some decades back with various kinds of stories being written depending on regional histories and culture. To make three-dimensional effects in a projected movie, the camera records two images through lenses placed inches apart. The viewer's brain reconstructs depth from the images as in normal vision.

To view the movie, the audience uses special glasses allowing the left eye to see the image filmed by the left camera lens, and the right eye to see the image filmed by the right lens. The lenses are made of differing colors or differing polarization to help produce the separation effect. Small theatres also show 4D movies where elements of wind, smell and movement are also included in the total viewing experience.

As of December 2009, there were around 8,500 digital screens internationally of which only 5,200 were equipped with 3D systems. Now there are 10,700 3D screens out of 14,500 total digital screens. Also to be noted is that 38% of international 3D screens are in the Asia-Pacific region.

Some hi-tech movies

The movie Avatar was created using 'stereoscopic film making' with cameras that were designed especially for the movie. The visual effects for the amazing graphics displayed in the luminescent plants and animals in the movie was created using Linux and other Linux-based software. Large Linux clusters were used for film rendering, with Red Hat Enterprise Linux as the Operating System. The CGI was created with 64-bit Linux-based software for painting textures and 3D modeling, according to expert sources.

More than 90 cameras thronged the sound stage, and during editing, the studio atmosphere was replaced by digitally created 3D backgrounds and structures. The 3D Fusion camera used in the movie project used two high-definition cameras in one to give depth perception. The lenses can be adjusted to focus on nearby objects or on far away objects similar to human eyes.

A new 'virtual camera' was used in the filming of Avatar, which created history in motion-capture film making. The system displays an augmented reality on a monitor, where the actor's virtual counterparts are incorporated into their digital surroundings in real time. The director can adjust and direct scenes just like in shooting live action.

Closer to home, the Indian movie 'Endhiran' (or 'Robot') was made with a budget of $41,675,740. The Light Stage Face Scanning Technology used in Avatar was used here, based on original research led by Paul Debevec at the University of California at Berkeley and published at the 2000 SIGGRAPH conference. It helps visualise how an actor's face appears when lit from different lighting directions.

Using this captured imagery, technicians can produce specialised algorithms that create realistic virtual renditions of the actor. This reproduces the color, texture, shine, shading, and translucency of the actor's skin as life-like as possible, resulting in a detailed high resolution CGI Face.

The scanning was used to create detailed 3D Face mesh OBJ file, 3 Diffuse RGB Normal maps, one Specular Normal map, one Diffuse texture map and one specular intensity map. These images were in High Dynamic Range format. A new proprietary maya skin shader plugin was developed by Indian technicians with the help of Jupiter Jazz to leverage the intense details gathered with high resolution.

More than 2000 VFX or visual FX shots were incorporated in the movie. Animatronics, which involves Mechatronic Objects with motion sensors which can be made to move with the help of remotely operated devices, was used. The motion sensor can capture the movement of the person who acts like the movie character.

The seamless blending of key frame animation, motion capture, animatronics, multi robots and real model/texture scan of the characters enhanced the movie production. VFX was made seamless and consistent with right color timing enabled by the DI team from Reliance Media Works, India.

The Japanese movie Godzilla was first released in 1954. A picture continuity, or pictorial script, for each scene was used to indicate positions and where to position the camera. As most scenes were filmed in the studio, artificial environments could be created and manipulated without outdoor disturbances.

The monster, which looks 60 metres tall in the movie, is actually only 2.2 metres high.

Some scenes like that of the moving Godzilla and the burning city were shot separately and superimposed. Some years back superimposition was done manually frame by frame using an optical printer. However, Digital Synthesis is the norm now, a method which employs a scanner to generate digital data from the film while using a computer for producing the required image. Digital synthesis increases the number of elements that can be processed in addition to enhancing the precision.

Scenes of disaster are usually made by using miniatures. As they require greater precision, multiple cameras are placed in different angles to shoot the scene which is later edited.

Factoids

- In animated movies, nearly 65,000 pictures are used, with around 12 pictures making up a one-second duration scene.
- By July 1896, Lumière moving pictures were screened in Mumbai, India after gaining popularity across Europe. In 1913 a full-length silent motion picture was produced in India.

Movies of the future

Future films are going to be revolutionary, using technology still as yet unimaginable today. Disruptive technology will enable future movies to be screened in smaller theatres such as in convenience stores, malls etc. These can serve 1 to 8 persons, showing movies on demand from a huge database.

Movies will also be able to be downloaded from booths on to mobile devices for convenient viewing. Future movies will offer virtual experiences with decentralized versions, which viewers can feature themselves as a character within the movie. In the foreseeable future, participatory movies will allow viewers to become part of the cast along with other actors. Perhaps then people will also be able to make their own movies and get them distributed via social media.

Movie industry in the Asia-Pacific

The movie production industry is fast growing in the Asia-Pacific region. China showed an upswing of 23% in 2010 compared to 2009, with gross revenues of $1.1 billion. Other huge markets like Japan and Korea also gained significant growth, with the former leaping over the $2 billion mark and Korea showing $750 million in revenues.

The motion picture industry is served by the CineAsia Summit, which invites delegates to compare notes on piracy, 3D techniques, digital movie making and the future of the movie industry.

Naoshi Yoda, the managing director of T-Joy Cinemas in Japan says, "By pursuing business within the framework of countries, people are restricting themselves…it is necessary to exceed the boundaries that these restrictions allow."

The T-Joy Co-Marketing Strategy strives to augment the movie industry in Asia. The concept involves opening a market where production companies and distribution companies can ensure stable distribution besides enabling an exchange of high-quality content between nations. T-Joy has also implemented a content-exchange project with CJ Entertainment in Korea.

Movie piracy, also known as film theft, is a growing industry menace which is being dealt with by an iron hand from the Motion Picture Association for the Asia-Pacific Region. More proactive and collaborative means are now employed to beat piracy by working with local cinema operators. This has been effective in curbing the menace of camcording in Hong Kong and Malaysia. Thus, technology is the need of the day to eliminate film piracy, so it appears. A-P

COMPANIES MENTIONED IN THIS ARTICLE:

- **Reliance Media Works**, India
- **T-Joy Cinemas**, Japan
- **CJ Entertainment**, Korea

Continued from Page 35

to grow by 39% CAGR for the succeeding periods until 2014. This segment will be powered mostly by Collaboration, CRM and HRM applications, and will be the most important drivers that will promote further growth and be able to meet growing demands in the market. A-P

FURTHER READING:

- **Asia Telecom News**
www.asiatelecomnews.com
- **ZDNEt Asia**
www.zdnetasia.com
- **Viodi**
www.viodi.com

COMPANIES MENTIONED IN THIS ARTICLE:

- **Frost & Sullivan**
www.frost.com
- **International Data Corporation**
www.idc.com
- **Gartner**
www.gartner.com

EDUCATION

Peking Univ. to Become a World Center of Learning

To Rival Oxford and Harvard Universities

BY VINTI VAID

Over the last decade, China has been on the fast track to creating universities that will rank as world-class centers of education and seats of higher learning.

Peking University is poised to be a first class university along the lines of Harvard, Oxford and Cambridge on this side of the hemisphere. The university will soon have a new teaching hospital, an economics department, and an Executive MBA wing. An English language school will also soon commence. Peking University is the realization of a long ambition for Ivy League methods of schooling in China.

China has long nurtured the goal of qualitative change in its educational institutions. However, what catches one's interest is the immense proportions on which the educational landmarks are being planned. China's intended educational vision is that the students coming out of such premier portals will represent China's new workforce in the near future. Such vision indicates that China now wants to move up the value chain of the world economy.

China's education dream models

China wants its future workforce to be driving the value chain, much as how Japan had done in the decades after the Second World War, and continues to do so today. However, the model China is trying to emulate is based more on the recent success story of Taiwan. The 1990s saw Taiwan go from assembling electronic gadgets to being the driving force behind designing, manufacturing and supplying of popular electronic gadgets and devices used in global markets. China has analyzed Taiwanese footprints in bringing in a greater value education by introducing qualitative education with emphasis on modern methodologies, and it is now incorporating this successful model into its own educational vision.

What the expansion will mean to the outside world

The point of emphasis here is that these expansion plans for frontier education are massive. What may not be so obvious to the outside world is that these new plans are going to redefine higher education trends in the near future. Take, for example, the potential direct impact on UK universities. Presently there are more than 50,000 students from China, studying at British universities. Each of these students is important to the British economy, as they contribute substantially to the dwindling income of these hallowed universities. However, these substantial numbers are set to drop as China's birth control efforts are finally paying dividends. With the one-child policy, not only has population growth dropped drastically, but so have the number of students signing up for higher education at UK universities this year. The result is that the esteemed Universities in Oxford and Cambridge are heading towards further 'cash crunch'.

Icara | Dreamstime.com

The Chinese way to increasing its educational capabilities

In the next decade, China is set on the path to increasing the number of foreign students attending its universities to a whopping 150,000, making it one of the largest education providers on this side of the hemisphere. The vision is for China Universities to be as important to potential global students as a Harvard MBA program.

What China is doing is creating an education hotspot. It is attracting the best minds in universities across the world, particularly British professors, researchers, and chairpersons, with attractive salaries of up to sixteen thousand pounds a month, along with opportunities for research with cutting-edge infrastructural universities. The starting point will be the world class Hong Kong University, then to spread outwards to other universities in Shenzhen, Beijing and soon Shanghai.

Focus subjects at these universities

The faculties that China will be focusing on are core subjects such as higher engineering, research, science, pharmaceuticals and technology. To China, these will be the sectors from which hundreds of thousands of its workforces will be coming from, and they will lay the foundation of a markedly different economy. This will translate into high net-worth industries similar to what has been happening in capitalist economies in the west.

Aiding China's great march towards higher education are entrepreneurs like Will Vanbergen, from British Education Ltd., who began his company to help talented and skilled Chinese find the right higher education universities in England such as Eton, his alma mater. He has defined how education is the root to decreasing the gap between China and the western world. As some of the students he assisted have said, he and his organization are the bridge for most Chinese who are ignorant of the exam levels and the application process in such universities.

The presence of such organizations is quickly forging the part of private players contributing to China's plan of becoming the largest educational centre for foreign students in the world. British Education Ltd alone has forged the growth of three British universities campuses being opened in China. Qingdao College is a prime example of a typical British boarding school, developed by realtors from China, for local middle income Chinese who are unable to afford education abroad. With boarding fees at Qingdao approximating ten thousand pounds annually, it is a golden opportunity for Chinese with their deep cultural preference for quality academic education to benefit from such ventures.

Challenges to the growth path

However, China has an uphill task on its road to achievement. The mode it is adopting is by offering sophisticated infrastructure with academic caliber to match. In the initial phases, the foreign students will learn Chinese while being heavily subsidized by the government with scholarships. This will essentially create pro-China student groups who will drive future opinions about China, thus becoming important pivots that redefine China to the western world.

Chinese educational plans are certainly full of challenges. It is a fundamental drawback, even amongst the elite students in China, that speaking in English does not come naturally to them. Besides, Chinese stories of plagiarism are infamous and it will take years of original thought development before the world accepts Chinese credentials. Moreover, the poor quality of teachers at the schools is a definite image hindrance, as poor teaching skills translate into poor student growth and this affects higher education. The current education system does not encourage independent thinking, and there is as yet too much rote learning in the system.

Overcoming challenges

Unless China can overcome the limiting educational policies at the grass root level, the superior quality of higher education will not reach the common student. For domestic students to break into the mould of international education, the education system at the secondary and lower levels needs a revamp. Improving independent thinking at secondary level will translate into free thinking individuals at the echelons of the frontiers of science, technology, pharmaceuticals and engineering. Attracting foreign students for higher education and dreaming of a Princeton and an Oxford in Beijing and Shanghai are definitely commendable visions for China's educational policy makers. However, approaching this dream by overcoming the inherent flaws is the only way forward.

At the bottom of these educationally expansive dreams is the underlying principle of Confucian thought – namely, that education and knowledge empowers. China is on the right track to redefine its role in the global scenario. Riding high on the dream of a world class Peking University is motivating and definitely a reverse brain drain is now happening as more and more Chinese are finally packing their bags to return to premier universities right here in their hometowns. A-P

Q&A Joseph Baladi

BY VICTOR FIC

Joseph Baladi grew up in Brazil and moved to Australia at the age of eleven . His career then took him to New York City, Mexico City, Tokyo, and Singapore. Joseph developed a broad view of values, consumer behavior and an appreciation for the power of brands to contribute to a company's success. He has provided brand building advice to major global firms, such as Procter & Gamble, Mars, and Coca-Cola. Now based in Singapore, many praise him as the loudest voice advocating powerful Asian brands. Joseph has written hundreds of thought provoking articles on leadership for publications around the world. The Brutal Truth About Asian Branding is his first book. He can be contacted at jbaladi@brandasian.com.

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

Offering Straight Talk on an Asian Weakness

What does the term branding mean?

It means "process". Not advertising, certainly not "logo", but rather, a process that is started and maintained from within the organization. The central goal is self-definition of " purpose " and customer promise. Equally importantly, it means figuring out how to consistently deliver on these concerns.

Some critics complain that the weakness of books on branding is that they only address the 'how' question, whereas you focus on the 'why'. Your response to this?

My book focuses on the bad practices that are arresting the development of Asian brands. Among other things, Asian branding is incapacitated by the dual challenges of CEO ignorance about branding and third party branding advisors who poorly educate them. The reasons range from Alpha-type CEOs who feel they know everything about branding to consultants who are willing to tell them what they want to hear, to common variety poor competencies among providers. And yes, I do spend sometime discussing the "why" in my book . This includes revealing that the real value of brands exists within a "cultural" context - meaning that brands help people define themselves.

You promise the reader that you will expose "brutal truths." What are they?

There are many brutal truths that I identify in the book. And what is important to understand is that most are somehow connected. This means that when something goes "south" it triggers a chain reaction that creates vicious cycles. For instance:

- Branding is not created by third party providers or by an external influences like advertising;
- Branding is almost entirely and exclusively an internal process;
- Branding and advertising are connected but certainly NOT the same;
- The branding phase delivers, among other things, the "Brand Blueprint". This should be the biggest ingredient in the "communications strategy" created for advertising. But it is not;
- A great deal of advertising in Asia is "off-brand" mostly because it is created without brand blueprints;
- Most Asian CEOs are unaware of most of this.

Name names, Joseph. What are some of Asia's merely good brands that fall short of great? What are the latter brands?

As far as brands that "fall short," I don't name names any where. But many companies are blazing positive trails for others to follow, like Singapore-based Eu Yan Sang. By envisioning a different future it not only redefined itself but the entire Traditional Chinese Medicine category. Banyan Tree is another example. It is a luxury hospitality brand that refused to copy western luxury positioning models, and instead not only embraced its "Asianness" but also pioneered environmental consciousness in the category.

What causes this flaw?

If by flaws you refer to the reasons that contribute to poor branding in Asia, I identify 5 key reasons in the book:

1. Myopic CEO leadership;
2. Corporate culture is by default, rather than by design;
3. Charlatan brand practitioners;
4. Performance of government agencies;
5. Advertising agencies' lack of branding competencies.

You warn that weak regional brands will slow economic growth in Asia. Is this an overstatement or can you argue your point?

Economic growth is often and justifiably measured by consumer consumption. Consumers mostly buy brands. It seems counter-intuitive that the Asian economic boom can continue on the back of consumer attraction to western brands, which is the present situation. Asian and Chinese brands must rise to maintain momentum. I am sure they will in time. Overall CEO education and books like mine will help.

Are you one of the few people ringing an alarm here?

I am one of the few people willing to stand up and tell Asian CEOs what they need to hear instead of what they want to hear. I want to believe that there are legions of CEOs who are receptive to straight talk - even blunt talk. These individuals want to "know" .

You want Asian CEOs to think differently about branding, that you want to see a revolution. Meaning what?

The kind of unprecedented global change underway is so massive, so huge in scale that it literally can't be seen by many. It's that big. It's like needing altitude and distance to recognize events - as well as the implications and opportunities.

The most visible manifestation of the opportunities are in how the so-called Asian or Chinese Century is defined. If the penny drops and sufficient Asian CEOs recognize the power of branding, the Asian Century might have a similar impact on the lives of people around the world that the American century did - that is through its brands, commercial and otherwise. This is where the real prize for the Asian/Chinese century lies.

It is easy to demand change, but how do you propose to achieve this?

We do it one visionary at a time. We need courageous leaders, particularly in China if the "Made in China" problems are to be overcome. They exist and will lead the change forward. A-P

NEW & NOTABLE

Shadows & Trolls: Industrial Espionage, Intellectual Property and International Litigation

BY MICHAEL PAIK
MANAGING EDITOR

At (intellectualventures.com), one can find a copy of the complaint filed by Intellectual Ventures against, among others, Hynix Semiconductor of Korea. Intellectual Ventures, based in Bellevue, Washington, seeks jury trials and unspecified damages in three lawsuits, according to papers filed in federal court in Wilmington, Delaware.

The firm's founder and chief executive officer is Nathan Myrhvold, the former chief technology officer of Microsoft Corporation. Since its founding in 2000, "Intellectual Ventures has purchased more than 30,000 patents" and "earned nearly $2 billion by licensing these patents," according to court papers.

Separately, South Korean police are investigating possible industrial espionage after notification by the Indonesian government that intruders were discovered in its delegate's Seoul hotel room. It is suspected that several officers from South Korea's National Intelligence Service broke into the Indonesian delegation's suite at the Lotte Hotel in Seoul. Two men and one woman are accused of looking at a delegate's laptop computer and attempting to download information to a USB memory stick. Apparently, they were disturbed by a returning delegate. Some South Korean media report that the computer belonged to an aide of Indonesian Economic Minister Hatta Rajasa. It's alleged that the three people were attempting to access data related to the potential sale by South Korea of its indigenous T-50 Golden Eagle jet trainer.

As reported by the Chosun Ilbo, a major Korean newspaper, the National Intelligence Service (NIS) agents who broke into a hotel room of a visiting high-level Indonesian delegation were operatives based with the agency's industrial espionage team, according to a government official. He said the team is responsible for preventing domestic industrial secrets from being leaked overseas and gathering information both at home and abroad that is deemed sensitive to national security.

The NIS overhauled its organizational structure in the fall of 2009 and transferred agents in charge of spying on North Korea to gathering sensitive industrial and scientific information and other special operations. The role of the industrial espionage team was bolstered because Korea was increasingly becoming a target of corporate espionage as a growing number of Korean businesses acquired cutting-edge mobile phone and semiconductor technology. But the NIS is facing mounting criticism from government officials because talks with the Indonesians about the sale of weapons were going well, with the visiting officials asking Korea in a meeting with President Lee Myung-bak to serve as a major partner in the Southeast Asian country's economic development plans. Critics say there was therefore no reason for the NIS to intervene.

Export of the T-50 Golden Eagle supersonic trainer jet has been a long-cherished dream of the Korean government. Developed by Korea Aerospace Industries in collaboration with Lockheed Martin over a 10 year period starting in 1997 at a cost of W2.8 trillion, the T-50 is the country's first supersonic trainer jet and is equipped with top-notch electronics equipment. These features had stoked hopes of exports reaching around 1,000 units. The Air Force bought 90, but that was not enough to recoup the investment, making export crucial. The problem is the high price tag of US$25 million per jet. Although the T-50 boasts superior performance to Italy's Aermacchi M-346 Master trainer jet, the Korean plane has lost to its Italian rival on several bids due to the high price.

When he was president-elect in January 2008, Lee asked the ruler of Abu Dhabi to buy T-50s but was unsuccessful. Lee then pitched the T-50 to Poland during his visit to Warsaw in 2009 and failed as well. Last year, he wooed Singapore by inviting the country's leader to the G20 Summit, but failed again. He then set his sights on Indonesia. Lee pushed ahead with a visit to Bali because rejecting an invitation from Indonesian President Susilo Bambang Yudhoyono could have hurt the potential sale of the T-50 and other bilateral pacts. The two leaders there forged a defense industry cooperation pact that led to the visit of a high-level delegation to Seoul last week. Perhaps that deal would have been signed if it were not for this botched attempt at espionage. The NIS director has come under pressure to step down following the reports. No comment has come from the Indonesian Embassy here except to say that they asked the Korean side to look into the case. While commenting about the level of agents working for the NIS, one Western diplomat pointed out that it is not the first time a Korean agent was caught with his hands in the cookie jar, referring to last year's incident in Libya, in which an NIS agent was caught by Libyan authorities while gathering intelligence.

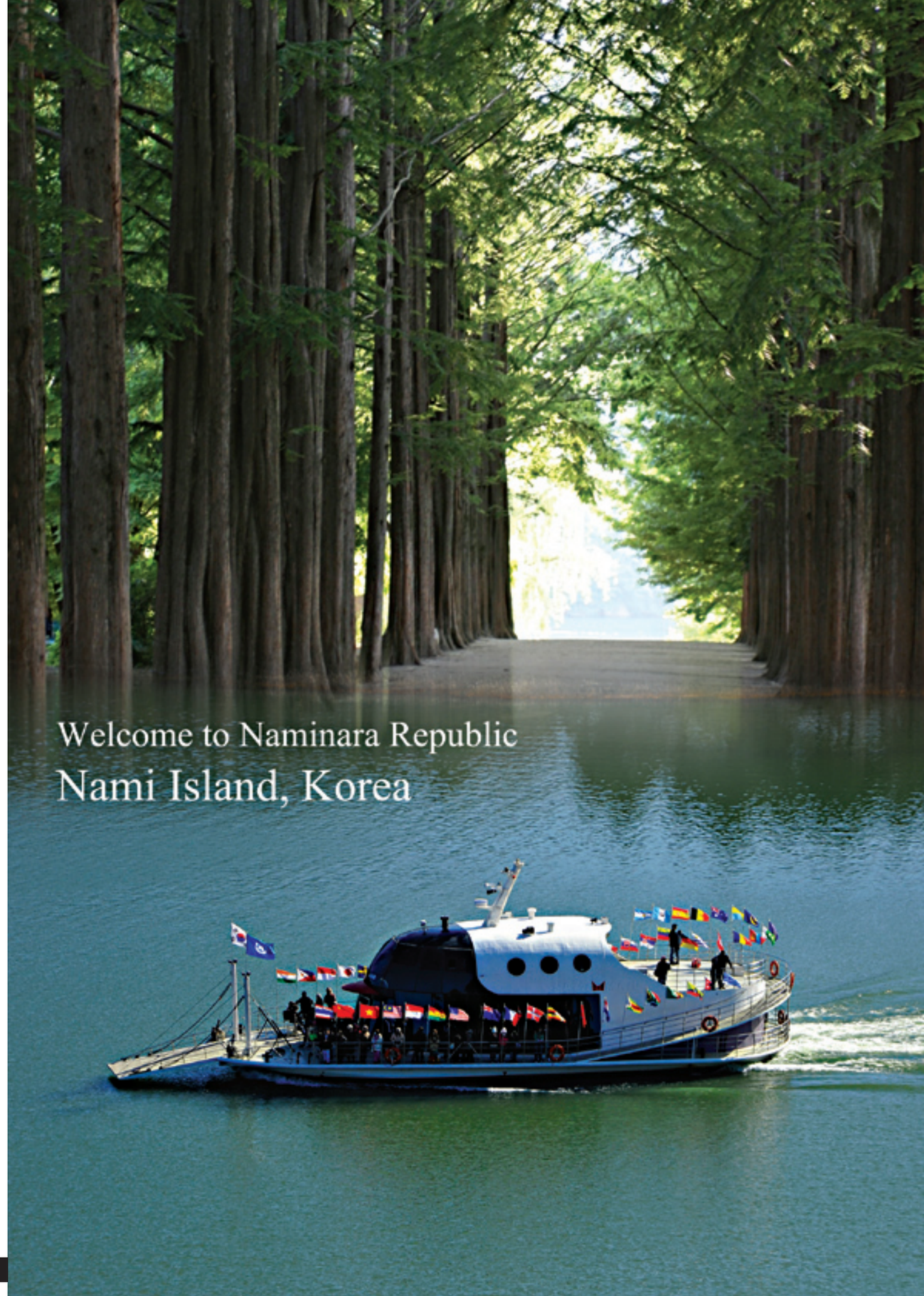
One thing that is interesting about these two stories is the differing approaches to offensive tactics in a world of sensitive information, technology and potentially large financial gains. Here in Korea, the NIS has been tasked with a leading role not only in counter-measures and defenses, but also (apparently) in offensive efforts at gathering sensitive industrial information helpful to Korea, Inc. Typically, one would expect that the private sector would bear the brunt of such efforts, and that the international legal regimes in intellectual property protections and litigation would be the primary tools for such work, as well as sufficient pay and incentives, and effective risk management systems at the corporations themselves.

Patent trolls such as Intellectual Ventures understand this system and work it very well, as evidenced by the suits against Hynix and others. With regard to defense, to the extent that Korean industrial concerns are unable to defend against such suits, and end up paying license fees in settlement, they've failed in what's really part and parcel of the high technology, high stakes game that is today's global economic system, where information and technologies are increasingly valuable, and simple "hard work" and cheap labor don't suffice.

Intellectual Ventures is also active in Korea, and at one point, the NIS reviewed their activities as well, as it was argued that the optioning of Korean technologies (via contracts with the various research institutes and universities in Korea, whose activities are largely state-funded) could constitute a national security threat. I thought that argument was weak then, and can see now that the use of blunt instruments such as the NIS in protecting (or indeed, augmenting) Korea's intellectual property base may ultimately prove ineffective and potentially counter-productive.

What's needed, therefore, is a much more sophisticated approach to industrial espionage, intellectual property and international litigation, where industry plays a larger role, supplemented perhaps by assistance at the national level. Dependence, however, on a state-run organization with limited capabilities and capacities is clearly not working.

After all, the fact is that sensitive information, even if adequately protected by law and security, is more often sold by underpaid insiders than it is stolen by the cloak and dagger method. A-P



www.innominds.com

Outsourced Product Development Unleashed...

Innominds

US Address

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

India Address

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