INTERVIEW
RARA JEON

TELEMATICS BEYOND NAVIGATION

INDIA-SAUDI ARABIA
OLD TIES, NEW OPPORTUNITIES

ASIA-PACIFIC
Business & Technology REPORT
WWW.BIZTECHREPORT.COM

APRIL 2010
Vol. 2, No. 4

AMERICAN ENTREPRENEUR
ASHOK RAO
The First Indian-American to take a Technology Company Public on NASDAQ

GLOBAL ENTREPRENEURSHIP

ISSN 2092-7738
₩8,500, $8.00

AP-11 copy.indd 1 3/25/10 8:28:29 AM

Snovasoft
IT Associates

Overview

Who we are ?

Snovasoft is one of the fastest growing global software firms. We are based in U.S.A., with support locations in Asia. We specialize in providing customized products and solutions across many industries. Some of them are:

- Financial services
- Health care
- Insurance
- Human resource management
- E-commerce

What we offer ?

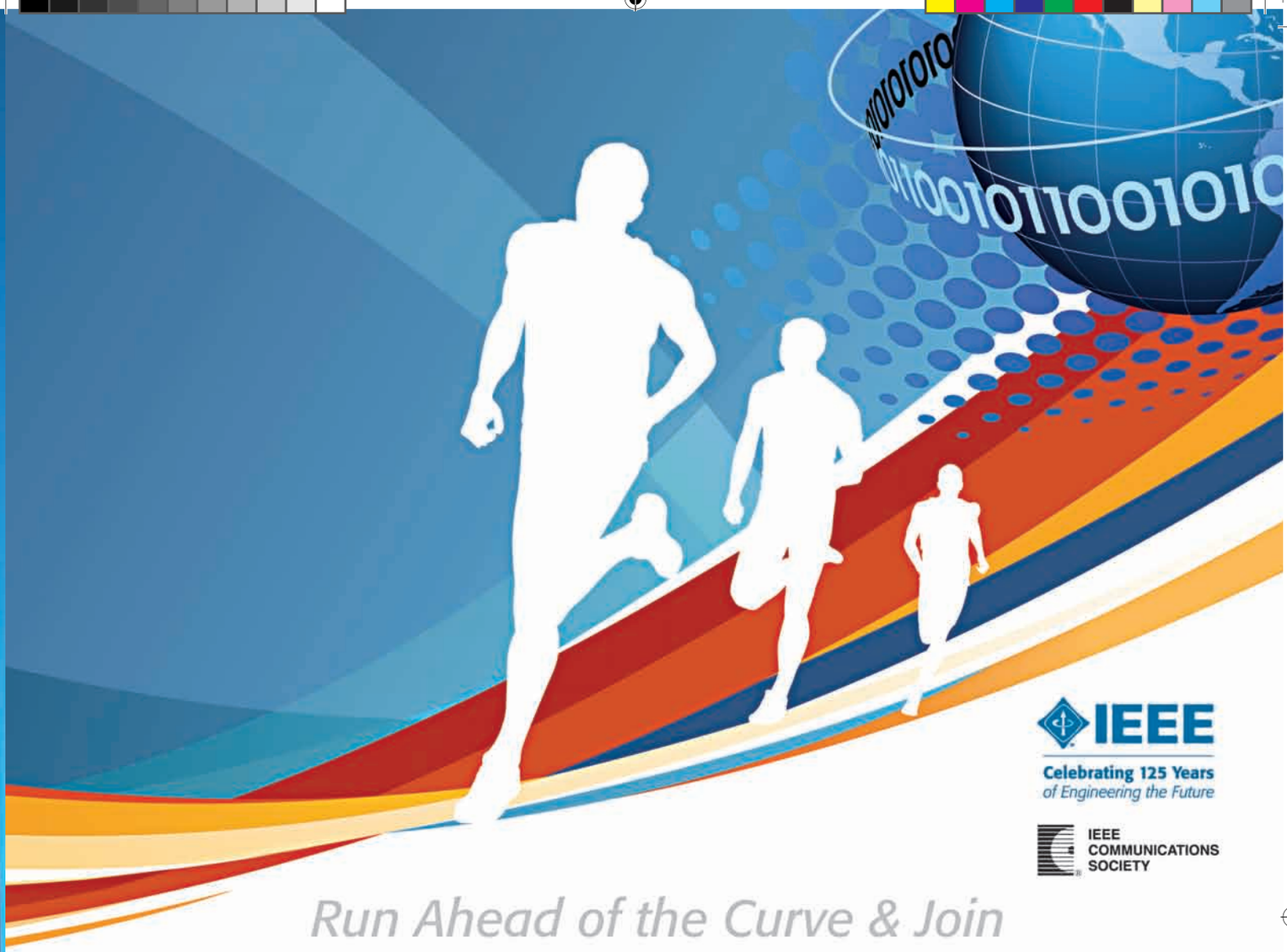
- Strategy and architecture services
- Business process outsourcing services
- Maintenance and Technical support services
- Network and security services

Why us ?

Our philosophy is what sets us apart. With efficient, quality driven and cost-effective IT solutions, our clients can maximize their return on investment and focus on core business goals, with peace of mind.

To learn more..... please visit us on the web at www.snovasoft.com or to contact our regional representative in Asia Pacific, please email to: parvkaur@kornet.net or call us @ Office : 82-2-7653990/Mobile : 82-17-7098230.

AP-11 copy.indd 2 3/25/10 8:28:36 AM



Run Ahead of the Curve & Join

IEEE Communications Society

the Global Community of Communications Professionals

For free digital sample copy, go to
http://ww2.comsoc.org/Digital-Sample

Membership benefits society members enjoy include:

- Digital Delivery of ***IEEE Communications Magazine.***
- Online access to industry resources and technical papers.
- Online Tutorials, Webinars and other Educational Programs.
- Network opportunities with technical experts around the world.
- Member discounts on the **Wireless Communication Engineering Technologies (WCET) Certification Program.**
- Monthly ***ComSoc e-News*** issues.
- Digital Delivery of ***ComSoc Community Directory.***
- Additional ComSoc Member discounts on conferences, publications, and member-only products.
- Volunteer opportunities and eligibility for awards and recognition.
- and much more.

Become a 2010 Member — www. ieee.org • www. comsoc.org

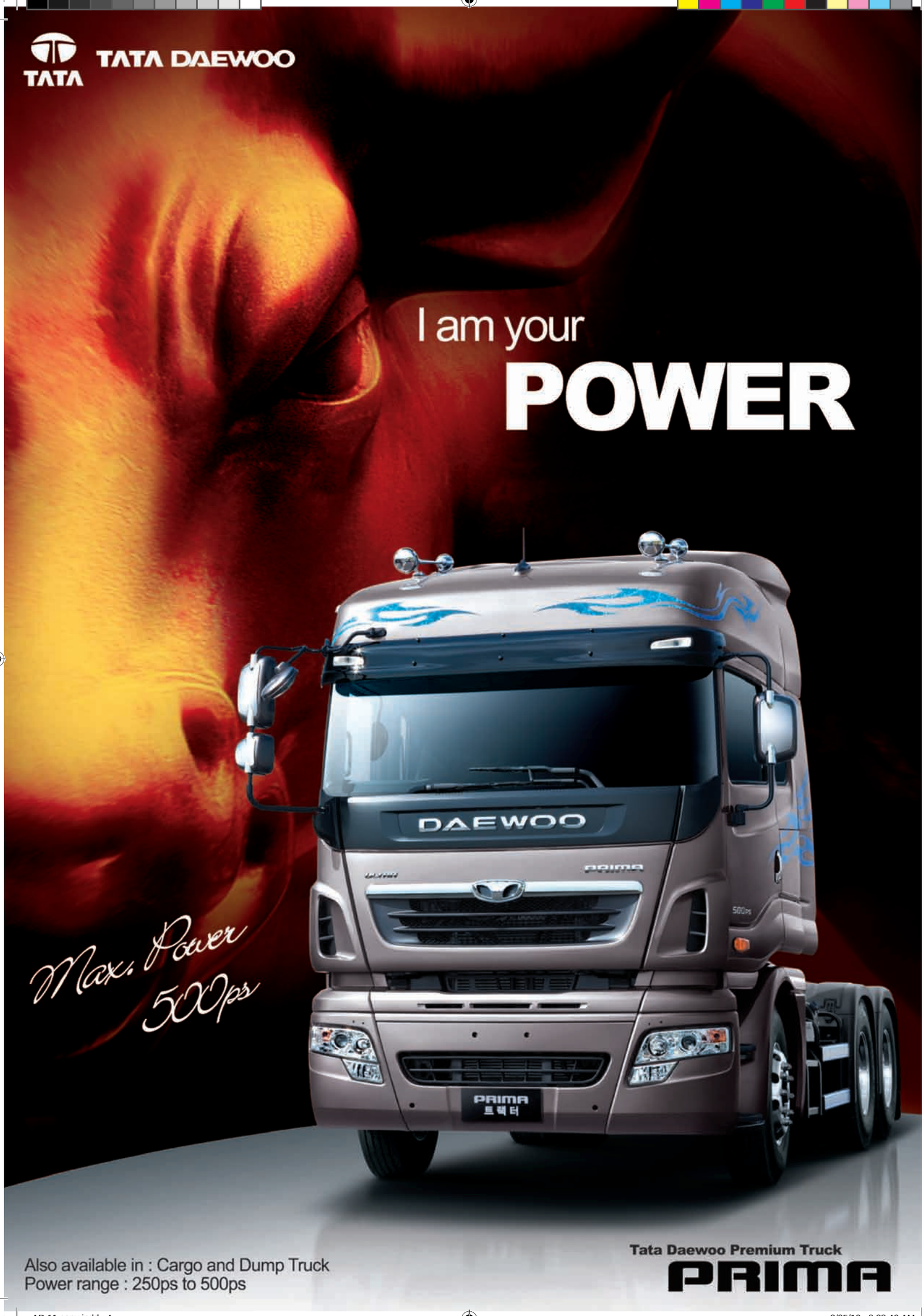
Headquarters - New York, USA
3 Park Avenue, 17th Floor
New York, NY 10016 USA
Tel: +1 212 705 8900
Fax: +1 212 705 8999
society@comsoc.org, www.comsoc.org

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

China Office
Ning Hua, Chief Representative
Rm 1530, South Twr,
Raycom Info Tech Park C.
Haidian District
Beijing, 100190, China
Tel. +86 10 8286 2025, Fax: +86 10 8262 2135
n.hua@ieee.org

IEEE Member Services
IEEE Operations Center
445 Hoes Lane,
Piscataway, NJ 08854-4141 USA
Tel: +1 800 678 IEEE (4333)
Outside USA & Canada: +1 732 981 0060
Fax: +1 732 562 6380
member-services@ieee.org, www.ieee.org

AP-11 copy.indd 3 3/25/10 8:28:41 AM

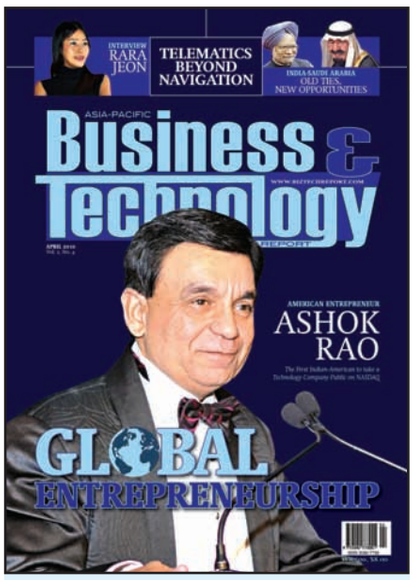


AP-11 copy.indd 4 3/25/10 8:28:46 AM

ASIA-PACIFIC Business & Technology REPORT

Contents

April 2010 / Vol. 2, No. 4 | www.biztechreport.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: ₩8,500/ US$8
Annual subscription fee: ₩96,000/ US$90

Chief Consultant
DR. LAKHVINDER SINGH
Indo-Korean Business and Policy Forum
Editorial Advisory Board
N K GOYAL
President, Communications & Manufacturing Association of India, CMAI
DR. MEZYAD ALTERKAWI
Associate Professor, King Saud University
MR. EMANUEL YI PASTREICH
Director, The Asia Institute
MR. JUNGSOO JANG
President, Korea Future Institute
MR. JANG-HWAN KIM
President / Fair Partner

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

The views and opinions expressed in the articles are those of the author and do not in any way reflect the editorial policy of Asia Pacific Business and Technology Report

Issue date: April 2010

INTERVIEW

Ashok Rao
Global Entrepreneurship
Pages 6-9

INDIA
10 Industry Friendly India
Balanced Budget, Growth
BY RAJANI BABURAJAN

NORTH KOREA
12 Difficult Questions, Diplomacy
Nuclear Program
BY DONALD KIRK

BUSINESS
14 Land Your Dream Job
Interviewing Tips
BY ANISU K. VERGHESE

42 Town Halls
Employee Alignment
BY ANISU K. VERGHESE

IT
18 Telemedicine
Enhancing Healthcare
BY ANURADHA SHUKLA

20 Data Backup, Restoration
We've Come a Long Way
BY VINTI VAID

22 Asian Online Monoculture
Lights Going Out for Korea
BY MATTHEW WEIGAND

24 Management Software
Dealing with Problems in the Companies
BY ANURADHA SHUKLA

32 Technology Incubators
The Role of University Links
BY STAFF REPORTER

34 Beyond Navigation
The Telematics Industry
BY RAJANI BABURAJAN

36 Green Telecom
Is it Socially Beneficial?
BY N.K, MATHUR

38 Technology Trends
The Education Sector
BY ARPAN BANERJEE

GREEN
44 Carbon Arbitration
Projects in Korea
BY AMANDA MIN CHUNG HAN

INTERVIEW
46 Rara Jeon
C.E.O. of Barnet & Company
BY STAFF REPORTER

LESSONS FROM KOREA
50 Working With India
Returning to Seoul after 26 Years
BY RAJIV KUMAR

Special Section

INDIA-SAUDI ARABIA
Pages 26-30

INTERVIEW

ASHOK RAO

BY MATTHEW WEIGAND

Global Entrepreneurship

Mr. Ashok Rao is a successful serial entrepreneur in the United States. He has created four successful high-tech start-ups in the past two decades, and took one of the public with a market cap of $400 million. This made him the first Indian-American to take a technology company public on NASDAQ. In 2007, he was awarded the Distinguished Alumnus Award for Entrepreneurial Achievement from his alma mater, Marquette University. He was also selected as one of the top 100 South Asians in America in the book Lights of South Asia. In final mention, he received the 2008 APAHA George H. W. Bush award for Arts Achievement. Asia-Pacific Business and Technology Report was able to get a few minutes alone with him after he visited Seoul to give a special presentation on entrepreneurship in mid-March – ed.

Q: Even though you are a well-known entrepreneur in the US and India, for the benefit of our readers in the Asia-Pacific region, can you let us know about yourself and your main business in the US?

A: My career has been a mix of coming up the corporate ladder until I was 40 years old, and then switching to do four start-ups. So I've had a mix of the corporate world and the entrepreneurial world. That entrepreneurial world was a real heady and satisfying experience. Terrifying also.

Q: Do you think that your corporate experience enabled your success?

A: I don't think it was the only reason, but I think it was very helpful in terms of knowing the basic ingredients such as understanding finance, being on top of the numbers, hiring practices, compensation practices, and incentive schemes. I could try and select the good and avoid the bad of what I had learned. Most importantly, I think you have to disconnect from the comfort level of salaried jobs with lots of people to delegate to, secretariesm, and all the other perks that come with having a high level corporate job. These perks go out of the window if you want to be successful as an entrepreneur.

Not everybody can bootstrap their way up like Microsoft did.

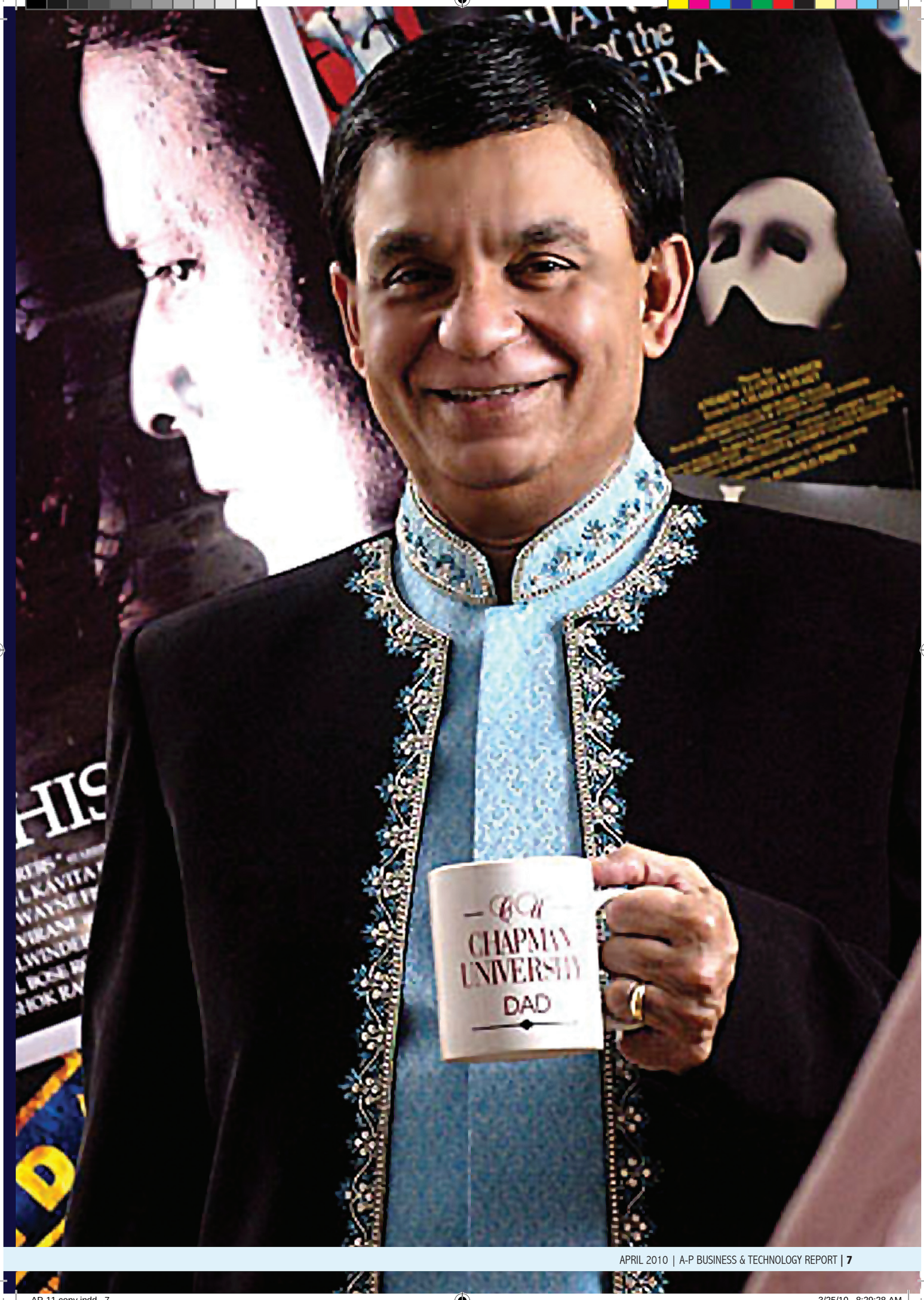
Q: Do you think that the US is unique in providing opportunity for entrepreneurs?

A: Opportunities exist everywhere. Look at India for example - fantastic opportunities exist. But the US is the most efficient capital-raising system in the world, for large amounts or small. The most efficient engine for raising capital is the combination of Wall Street, venture capitalists, angel investors, along with IPOs. Very efficient. Last year was a blip in the US; we had to pay the price for our excesses. Also I think the US has a true start-up mentality, it is part and parcel of American thinking. Starting your own business, striking out on your own, building your own enterprise, it harkens back to the frontiersman spirit that built the US, how America was settled, barely 200 years ago. It is ingrained in the psyche of most Americans. Immigrants have arrived in the US with the same ethic – an immigrant frontiersman ethic. "I can make it work." Whereas in the East, particularly Asia, they have this whole business of respecting the older person and the more senior you are, the more respected and entrenched you become.

Q: In Korea there is a strong governmental presence in supporting venture capital firms In the forms of government-run incubators, government-sponsored research grants, and low-interest government small business loans. As an entrepreneur, do you think that has an effect on start-ups, and if so how?

A: It all depends on whether the government interferes or not. There are lots of rules and regulations that companies have to abide by - even with private capital - such as loan covenants. In the end, if the government is giving money to start-ups, I'm happy. They are encouraging entrepreneurship. The number one problem for start-ups is not having enough money - to grow, to make payroll, etc. If the government does not demand onerous restrictions, I think getting money from them is just great. We have the SBA [Small Business Administration] in the US, which is in charge of handing out loans to small businesses in the US, but I wish the US would do more. Maybe because

AP-11 copy.indd 6 3/25/10 8:29:26 AM



AP-11 copy.indd 7 3/25/10 8:29:28 AM

there's such a vibrant venture capital and angel investor climate in the US, the SBA tends to be real slow and bureaucratic in comparison - slow to maneuver, and they don't approve a lot of loans. However it does not make much difference in the bigger picture in the US. I think government involvement is terrific if the money does not come up with a lot of overly onerous strings attached. For me, if anybody gives me money for my start-up, I'm thrilled whether it is the government or private investors. Not everybody can bootstrap their way up like Microsoft did. Backing start-ups is not only terrific but essential. In a country that is not naturally entrepreneurial, start-ups need to be encouraged.

Q: Also, in Korea, most small and medium businesses have one customer for their services, which is one of the big conglomerates such as Samsung, LG, or Daewoo. Some people say that this situation is not conducive to the growth of small and medium businesses. What is your opinion?

A: I agree with that. You should never be dependant on a single customer... unless you have a sweetheart contract with that one customer. But even that is risky. What if they go belly-up? You should never put your future in the hands of one customer, you should diversify. However, if you aren't a true entrepreneur, but an offshoot of a bigger company like LG or Samsung, that's okay. But it's not true entrepreneurship.

Q: Is it hard for a small company to go global?

A: I think it has become astonishingly easier than ever. The technology, the ability to compete just like the big boys, the systems and marketing materials, and web sites all make it possible for small companies to have a global reach. One can reach anybody today, anytime. Just 20 years ago you needed complete infrastructure. For example if you wanted to sell in the Far East, you probably had to open a Hong Kong office - you needed an office, some salesmen, an office manager - lots of stuff.

Q: Is it better to look for local business first when starting up a new company, or to look for international business?

A: Local business first. Well, it depends on your product. Like the example I gave when I spoke the other day - this one lady in Houston, 99% of her business is outside of Houston, and she doesn't travel. She sells vitamins and health foods via the Internet, and her products are easy to ship. If you're building locomotives it's a little different. You can't just put a locomotive into a box and ship it wherever. So it also depends on the product.

Q: In your talk on Friday you mentioned the organization TIE. What exactly does that stand for, and what would it take to start a chapter of that organization here in Seoul?

A: It stands for The Indus Entrepreneur. It is the world's largest organization of entrepreneurs. Originally it was a play on words. It was started by successful Silicon Valley entrepreneurs from the Indus region, and the "I" in TIE stood for Ind-US. Today the "I" in TIE could very well stand for "International." TIE is all about three things: mentoring aspiring entrepreneurs, fostering entrepreneurship globally, and creating networking op-

AP-11 copy.indd 8 3/25/10 8:29:31 AM

portunities for all its members. The people who started TIE were those successful entrepreneurs who had made it, but they really had to break through glass ceilings, bloody their noses, and do a lot of "heavy lifting" to get where they were. Back in the 70's, Indians in the US were not considered good CEO material. They were considered good engineers and good accountants. Those at the very forefront of trying to build companies were always faced with the objection that "sure you're a great engineer, but we should bring in an American with experience to be the CEO." We didn't have a lot of support systems or advice, so we made our mistakes by the bucket load. The founders of TIE came together to form an organization to mentor aspiring entrepreneurs who were trying to build businesses, and to create an ecosystem for fostering entrepreneurship. We currently have over 20,000 members in 55 cities and 14 countries. We should definitely create a chapter here in South Korea. Kuala Lumpur, Melbourne, Sydney, Stockholm, London, Manchester, Brussels – all of these cities have TIE chapters, along with over 40 chapters in the US, Canada and India.

What you need to do here in Korea is to understand what TIE is all about first. Then you need to get together a group of people who are willing to start the chapter and use it as a vehicle to attract entrepreneurs. TIE can then become the premier vehicle in Korea for mentoring entrepreneurs and fostering entrepreneurship throughout the country. Also, you would need to arrange for speeches and lectures from prominent business leaders, as well as "hands-on" style workshops. For instance, in Houston we have had a series of workshops on, for instance, how to write a business plan; how to speak and communicate; how to network; how to form a company; and how to protect your intellectual property. We also give legal and accounting advice to startups. These kinds of workshops attract about 50 people, whereas 300 people show up for our bigger keynote speeches from successful "superstar" entrepreneurs.

Q: What kinds of resources do you need to start up a chapter?

A: The primary resource you would need is a full-time executive director. When you're starting up, particularly when none of you is totally familiar with the TIE system, it is a good idea to have a full-time executive director to manage the day-to-day. Your charter members should be involved in driving the organization, and regular members, though less involved, would benefit equally. The Bangalore charter, for instance, has 250 charter members and 1,500 regular members. The largest chapter is Silicon Valley, CA with almost 400 charter members. The smallest is Ottawa, with 14 charter members and only a part-time executive director. Your sources of income are primarily membership dues and sponsorships. Some revenue can be generated by charging admission to events. Of course it costs you to run the events too, so how much you can charge for the events is also important.

Q: Can you please define your concept of angel investors in more detail? Is Korea the right place to have angel investors?

A: The answer to the second part of your second question is "yes." Korea is the right place. Angel investors are people who have acquired a certain degree of discretionary wealth that they can use to help people start up new businesses. Venture capital investors do not usually finance companies that are just barely starting up. They go for more proven companies. They ask you to prove that your business model works, and the only way to prove that is to do it first. Angel investors are the less draconian in their expectations and demands. I think Korea is an ideal environment for angel investors, because there are many successful and wealthy people in this country, i.e. the heads and senior executive of companies like Samsung, LG and Hyundai. They should be doing some angel investing to help some startups. Angel investors might get involved in a business that they feel good about, like Green Technology. Or they may invest in glamorous stuff like movie making, so that they can meet actors and actresses. Angel investors want to make money, but it is not their sole motivation, unlike a venture capitalist. An angel investor has secondary motivations.

Q: What business field would you recommend as a good one in which to start up a new venture in Korea?

A: Alternative energy. Any kind of alternative energy. Solar, wind, biofuels, biomass, fuel cells, anything like that. If I were to start another business in the US I would do it in alternative energy. Our planet is going to hit the wall in hydrocarbon based energy resources, whether it is 20 years from now, or 50 years from now. Investing in alternate energy is a smart thing to do.

Q: You said that innovation is the core of entrepreneurship. But government regulations, moral qualms, and national interests sometimes stifle innovation. What can the entrepreneur do to deal with anti-innovative powers or influences?

A: I can only answer that question by giving the example of the fellow that started Sula Wines in India - not a country that made or drank much wine till recently. Today the wine industry is a smash hit and growing at over 60% per year. The founder of Sula Wines literally invented a new market in India. It took him three years to get the government permit to grow wines for grapes. He said he lived in Delhi, on the doorstep of the Ministry that eventually granted the permits. He simply wouldn't give up. And the government was anti-innovation, and anti-alcohol, at that time. But he somehow figured a way out. However, sometimes there's never going to be a way to figure it out, and then you should move on. Sometimes you have to throw in the towel and do something else - or move to somewhere where you can implement your idea.

AP-11 copy.indd 9 3/25/10 8:29:37 AM

AN INDUSTRY-FRIENDLY INDIA:

BALANCED BUDGET/ BALANCED GROWTH

BY RAJANI BABURAJAN

The 2010-11 Union Budget is significant for India in many ways. A fast-emerging economy, India is one of the countries that showed the first signs of economic recovery from the global recession that struck in 2008. This year, India is hosting several international sports events, so it is preparing to get the infrastructure and resources ready to showcase these extravaganzas. However, India is facing an increasing number of challenges like population, security issues, price increases and carbon emissions. The 2010-11 budget has special significance because it should strike a balance between the country's growth targets and the livelihood of the common man.

"Finance Minister Pranab Mukherjee has done a fine balancing act" was the immediate reaction from industry organizations. The 2010 budget underscores the focus on development, especially on infrastructure, rural development, urbanization and social welfare, aiding India's development and further stimulating the vital industrial sectors, say experts from the ICT industry.

Anil Chanana, CFO of HCL Technologies, said, "The budget has been successful in reigning in the fiscal deficit while at the same time focusing on inclusive growth. With the enhanced spending on infrastructure, this budget will help stimulate domestic demand for IT products and services."

However, the industry expressed disappointment at the hike in the Minimum Alternative Tax (MAT) and excise duties. This year, the government has increased the MAT from 15 percent to 18 percent, while the industry was demanding a cut down to 10 percent. According to industry experts, the MAT will be a burden on small and medium businesses that are still struggling with the impact of the global recession.

Surjeet Singh, CFO of Patni, a leading BPO company, said, "An increase in the MAT from 15 percent to 18 percent on book profits would result in a higher outflow of cash in the short term and would affect Indian corporations adversely." However, Singh says, this impact has been cushioned to a large extent by the lowering of the corporate surcharge from 10.0 percent to 7.5 percent.

Singh also appreciated the support offered for in-house R&D. "We welcome a higher percentage of weighted deduction on in-house R&D, which has been increased to 200 percent from 150 percent, as it will incentivize IT companies' innovation focus," Singh added.

The measures adopted by the government to boost skill development will help nurture a workforce of a high caliber. It will have a positive impact on the BPO industry, which is people intensive.

AP-11 copy.indd 10 3/25/10 8:29:37 AM

Bhasin - NASSCOM

Guruswamy - Freescale

Aghi - Steria

"Overall, the budget was well balanced and responsible," said Ajai Chowdhry, CEO and chairman of HCL Infosystems Limited. "Various projects and schemes announced by the government will see an increased role for Information Technology as an enabler towards more inclusive growth."

The National Association of Software and Service Companies (NASSCOM) termed the 2010-11 budget proposals as progressive, long-term and providing the right thrust on social sector development, education, infrastructure, managing the fiscal deficit, the simplification of policies and convergence towards GST and Direct Tax Code.

Pramod Bhasin, chairman of NASSCOM, said, "The announcement of the Technology Advisory Group under Nandan Nilekani, the automation of central excise, GST and commercial taxes will enable the vision of citizen-centric governance. Our industry will partner with the government to drive inclusive growth within India, while continuing to be the leader around the world in IT and business process solutions."

The removal of the anomaly in Section 10AA of the SEZ Act and the Finance Minister's reaffirmation on the importance of SEZs will help the industry move forward with its SEZ plans across the country, NASSCOM officials said.

"While overall the budget is positive, we are disappointed with the increase in the MAT, which will be a burden on small and medium-sized businesses that are still struggling with the impact of the global recession," said Som Mittal, NASSCOM president, in a statement.

"There was also no move towards announcing parity of incentives between the STPI and the SEZ scheme, which is again necessary for small companies and the development of tier-2 and tier-3 cities. In line with our recommendation, the IT taskforce formed by the Department of Technology (DIT) had also strongly recommended that the STPIs be brought to par with the SEZs."

The reduction in personal income tax is good news to the industry, as employees in the industry will benefit from the extra savings on their earnings amidst price increases. However, the decision to increase the excise and customs duty on petroleum products will result in a sharp rise in petrol and diesel prices, further aggravating the situation.

The stimulus announced by the government has helped the manufacturing sector perform well. With continued support from the government on stimulating the economic recovery, the industry will be able to strengthen itself further, says Andrew Horne, managing director of Xerox India.

"The reduction of customs duty, central excise duty and special additional duty on certain goods and commodities critical to SMEs and SMBs will be beneficial to the Indian household," Horne added. "The tax slab for personal income and investment will also give a boost to the average mid-level income group."

Banking and e-initiatives

This year, the Finance Minister has acted promptly to offer appropriate banking facilities to habitations having a population in excess of 2,000. It is also proposed to extend insurance and other services to the targeted beneficiaries. These services will be provided using the Business Correspondent and other models with appropriate technology back up. By this arrangement, it is proposed to cover 60,000 habitations.

In 2007-08 the government set up a Financial Inclusion Fund and a Financial Inclusion Technology Fund in NABARD, to bring banking services to the underserved areas. To give momentum to the pace of financial inclusion, the government proposed an augmentation of Rs.100 crore for each of these funds, which shall be contributed by the Government of India, RBI and NABARD.

This move, according to Comviva CEO Manoranjan Mohapatra, a leading provider of value added services for mobile operators, is highly welcome as it would enhance banking facilities in rural areas so as to provide financial services to the unbanked. Companies like Comviva see great potential in the emerging mobile banking market in India.

"With over 500 million mobile phones in the country and growing rapidly, the mobile phone offers the ideal platform to deliver banking and financial services to the underserved sections of society," Mohapatra said. In this scenario, Comviva urges the government to adopt further measures to extend the reach of mobile commerce in the country in order to realize the goal of financial inclusion of the masses in the shortest timeframe.

Infrastructural Boost

This year, the government has given great focus on infrastructural development – both rural and urban. The IT industry has welcomed the allocation of 1.73 lakh crore for infrastructure development, as it

CONTINUED ON PAGE 16

AP-11 copy.indd 11 3/25/10 8:29:39 AM

NORTH KOREA:

DIFFICULT QUESTIONS HARD DIPLOMACY

BY DONALD KIRK

You would have to believe in miracles to think that North Korea would ever give up its nuclear weapons program. That's the view of a distinguished professor from China who talks with an air of authority that seems to reflect an insider's understanding of what's really going on in the North Korean capital of Pyongyang.

Wang Jisi of Beijing University may not speak for his government, the Chinese Communist Party or his country, but his opinion of efforts to get North Korea to give up its nuclear program provides a startling note of realism that seems to have escaped non-Chinese negotiators. "The DPRK" – the Democratic People's Republic of Korea, or simply North Korea – "will keep going nuclear period," he told a small audience in Seoul recently. "There is no other 'endgame,' at least from Pyongyang's point of view." That's the kind of blunt declaration that U.S. and South Korean nuclear envoys do not seem capable of making or even thinking, to judge from their public utterances.

The U.S. envoy, Stephen Bosworth, on a swing through the region, repeated the mantra of urging North Korea to return to six-party talks on its nukes and promising all topics would be open for discussion. South Korea's negotiator, Wi Sun-lac, meeting Bosworth after both of them had conferred with China's negotiator, Wu Dawei in Beijing, spoke of "the need for the parties to resume six-party talks." Both the Americans and South Koreans acknowledged, however, that the whole process remains stuck on North Korea's insistence on conditions that have no immediate chance of acceptance. These include the demand for a Korean

AP-11 copy.indd 12 3/25/10 8:29:39 AM

War peace treaty – a deal the North couples with withdrawal of the remaining 28,500 U.S. troops from the South – and an end to UN sanctions imposed after its long-range missile test and its subsequent nuclear test last April and May.

Just in case anyone doubted the North's position, the North Korean military came out with an appropriately tough statement warning of the consequences of joint U.S.-South Korea war games in March. It was one thing to vow to "mercilessly destroy the bulwark of aggression," as the Korea People's Army warned, but another to promise "all the offensive and defensive means including nuclear deterrent." Ok, nobody expects North Korea to drop any atomic bombs from its decrepit fleet of MiG fighters or attach a nuclear device to one of its vaunted missiles. In fact, it's quite uncertain whether North Korean engineers and scientists have actually figured out how to "deliver" the fearful warhead. Nonetheless, the statement would seem to leave one point indelibly clear: North Korea intends to remain a nuclear power.

Wang Jisi made his remarks in a paper delivered at a forum on the North Korean nuclear problem held at the Asan Institute for Policy Studies, a think tank financed in large measure by Hyundai money and led by Han Sung-joo, a former foreign minister noted for his moderately conservative views. Wang's realistic outlook seemed difficult to dispute in the face of the wishful thinking of U.S. and South Korean negotiators. He did not have to refer specifically to Bosworth's mission to Pyongyang in December to get across the futility of it all. From all that's gone before, he said, "it is hard to imagine any genuine progress on denuclearization – even if the North Korea-U.S. contact were upgraded or the six-party talks were to be resumed soon."

Wang did not claim any real inside knowledge of whatever North Korean leader Kim Jong-il talks about in meetings with the generals he commands as chairman of the national defense commission, the center of power in Pyongyang. For that matter, he did not let us know if Kim talks to his generals at all. For all anyone knows, maybe the Dear Leader just tells them what to do and think, they bow in assent, and that's it. "It is almost impossible for outsiders to know whether there were any debates within the North Korean leadership about the pros and cons of going nuclear," he said. "Why bother?" was the rhetorical implication. "Even if there had been any doubts and hesitations," he said, clearly "the perseverance to attain nuclear weapons is serving the leaders' interests very well."

The logic was simple from Wang's perspective, and the price was right. "Achievement of nuclear arms should help consolidate their position at home and increase diplomatic leverage," he said. "They feel little increased military pressure while they know how to take one step forward in nuclearization and then pause to show an ostensible readiness to negotiate over denuclearization. All the while, humanitarian aid and economic assistance continue to flow into the North."

"There is no other 'endgame,' at least from Pyongyang's point of view."

The degree to which Wang reflects the outlook of Wu Dawei and others in Beijing is not exactly clear, but it seems more than likely that he gets to lecture at home and abroad as both analyst and a messenger of high-level thinking. Looked at that way, Wang's pessimism about North Korea's giving up its nukes comes across as a sign of what Beijing sees as a higher priority, that is, propping up the North Korean regime against the danger of collapse and chaos. Wang got that point across too with a candor that's not readily apparent in narrowly official pronouncements from Beijing.

"Unlike other partners," he said, in a dig at the Americans and possibly the South Koreans, "Beijing would look at a possible political implosion in North Korea in most negative terms." For that reason his government "would never try to destabilize that country or join others" in attempting "to do so." Indeed, he added for good measure, it was "a consensus among many observers in China that the Pyongyang government, with the social order it maintains, may survive for a long time to come" in view of "traditional friendship" between Beijing and Pyongyang, a not-too-subtle allusion to Beijing's rescue of North Korea in the Korean War, as well as "shared interests."

Not that China is supporting whatever North Korea does. Reports persist that China is anxious somehow to tamp down North Korea's nuclear ambitions, to discourage the North from another nuclear test that many observers here are predicting will happen this year – and, of course, to engage in serious, effective economic reform.

Japan's influential national daily, Asahi Shimbun, for instance, cited diplomatic sources in Beijing as saying that China had responded with "an unexpectedly harsh reaction" to the North's nuclear test of May 25 last year. "The Communist Party of China told North Korea to reform and open up its economy, end its hereditary succession of political power and abandon its nuclear development programs," said Asahi, attributing those sweeping demands to party sources. It was against this background, said the article, that Kim Jong-il's third son, Kim Jong-un, visited Beijing while his father eased up on disastrous economic reforms.

The Japanese may be the toughest of all when it comes to belief in a firm approach toward North Korea. Hitoshi Tanaka of the Japan Center for International Exchange, at the same Asan Institute gathering, seemed extremely ambivalent about the future of the U.S.-Japan relationship, but absolute in his convictions about North Korea. "It is no secret that the new government in Tokyo has expressed a desire to develop a more 'equal' relationship with the United States," he said, citing controversy over "the realignment of U.S. military bases in Japan," notably in Okinawa, as "the major irritant in the alliance." Nonetheless, he said, "Japan seeks to strengthen

CONTINUED ON PAGE 17

AP-11 copy.indd 13 3/25/10 8:29:40 AM

INTERVIEWING TIPS TO LAND YOUR DREAM JOB

BY ANIISU K. VERGHESE

This week I have been interviewing communicators for an internal communications role. I wanted to jot down my impressions from talking to a set of talented people, share do's and don'ts and what I look for when it comes to hiring someone for a communications job. These ideas and recommendations I believe can apply to any profile and role.

At the time of publishing this post the position is still open and the selection process is underway.

Although the role has a mix of recruitment marketing communication and internal communication duties, it will require the individual to work closely with internal stakeholders to develop, synchronize, disseminate and measure messages.

Here is what I did before conducting the interviews.

First, I did my due diligence by reading the CVs carefully to understand how the individual structured his or her profile and highlighted the key words. I made notes of the elements of experience, learning opportunities and array of roles played within the communication portfolio.

I sought writing samples from the candidates ahead of the interview since I firmly believe creating content and key messages are essentials for any communication position. I sifted through the samples to gauge the maturity of the writing and the ability to express ideas succinctly.

Surprisingly, none of the profiles I reviewed included any element of social media to a) reference their background and, b) showcase their work.

When I called each of the candidates I ensured I provided the context, explained my role in the selection process and checked if they had clarity on the job description.

Strangely, only one of them had taken the trouble to find out more about the role and how it correlated to the candidate's experience. Interestingly, one asked me for feedback at the end of the interview – which to me demonstrated interest in growing and improving. I was asked what I look for when I interview a candidate for such a profile. I mulled it over and here is what came to my mind:

It boils down to what I call the **'3Ds'** – Is the individual driven, direct and distinguished?

Driven – is the candidate showing enough evidence of initiative and commitment?

Direct – is the candidate talking to the point? If you can't explain your point crisply, how can you communicate widely with your internal and external stakeholders?

Distinguished – has the candidate proved his or her worth in the domain?

AP-11 copy.indd 14 3/25/10 8:29:40 AM

If you have just started your career, you may argue that you don't have enough reasons and opportunities to make a mark. I disagree. If you are keen to make a mark and be recognized in your field of work, you should have begun early. Nothing stops you from building your portfolio of work even as a freelancer, enrolling in courses, joining a communication body, gaining experience with say, an NGO (without pay), penning articles for your local newspaper, writing a blog, hosting a photo feature, showcasing your video skills, demonstrating your leadership skills at a college event or building your personal brand online.

Now, to the questions I prefer to ask during an interview. I try to holistically gauge the candidate at the following levels:

- **personal** (education, interests, hobbies, etc.)
- **team** (how they fit into the current scheme of things, how they engage with their team, whom they look to for insights and learning, whom they report to, how they manage work)
- **organization** (how they are making an impact on their organization, how they know if they are doing so)
- **career** (expectations, understanding and awareness of opportunities available, industry trends, focus areas, impact)
- **learning** (what investment have they taken to grow, what they are doing to continuously learn more, who are their mentors)
- **personal attributes** (confidence, clarity of thought, ethics)
- **community** (what they are doing to improve things around them in everyday life, what steps they have taken to make a difference)

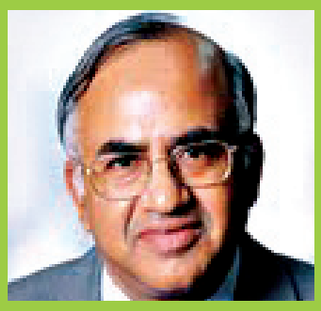
At this point, let me share some pointers on what one should avoid when applying and interviewing for a position.

1. **Stating an incorrect designation and role:** I noticed one CV that changed the current designation and role to suit the profile applied for. I only discovered this when I probed further and found that the candidate didn't have the relevant experience.
2. **Never bad mouth your current firm:** When I asked one prospective employee what would make them want to switch companies, the answers I got shocked me. The candidate used phrases like 'lax attitude,' 'not going anywhere here no matter how long I stay,' and 'nothing will change.' Which organization would want to hire someone who has such an attitude? Even if you are getting a raw deal in your current workplace, be thankful for the opportunities you get everyday to influence people and do the work you do.
3. **Unclear about what the industry wants:** If you are keen on making a mark in your area of work, you should positively know what is going on in your industry and the impact of regulations and governmental interventions. I made it a point to ask every candidate about recent trends they observed and I never got any convincing answers. If you don't know of recent shifts in the way communication is evolving, how do you plan to value-add to how communication is done in your role?
4. **Lack of clarity on career progression:** It is the candidate's responsibility to find career paths and opportunities that exist in different organizations from literature that is available. There are tons of materials that one can refer to.
5. **Beating around the bush:** If you don't know an answer, say so. No one is expected to know everything, but the least I would expect is that the candidate tells me that he or she would find out, get my contact information and let me know. When the expectation is to give simple, direct answers, nothing can be more frustrating than listening to a candidate beat around the bush.
6. **Wanting to do other jobs within the company:** While candor is appreciated, if you know the role does not suit you, explain it and drop off. I came across a candidate who wanted to play to her strengths in PR when the job clearly didn't expect her to do so. You first need to prove your worth with what you are asked to do and then move to other domains if you get the opportunity.
7. **Lack of interest in learning more:** I was taken aback when candidates told me that they had absolutely no idea where to seek information on corporate communication or internal communication. It may have been excusable 10-15 years ago when the understanding of communication was nascent. Today with a wide spectrum of options to source information from it is foolish to mention that one has no context. Even a simple Google search will get you all the content you need for a lifetime.
8. **Do not place content in your CV that you can't explain:** If you mention 'objectives' or 'strengths' in your CV, be prepared for questions related to them. For example, one candidate included 'networking skills' and I probed further for an example. Unfortunately, the candidate wasn't able to give me a good example of a networking skill she leveraged to improve her standing. My recommendation is to drop these elements, which bloat your CV length. Strengths will be discovered during the course of a conversation.
9. **Don't miss out on your manners:** If you are in a place with a lot of background noise, excuse yourself and buy more time or do the call later. Also, ensure you thank the interviewer for his or her time before signing off. Find out if you can continue keeping the relationship going in the future or if the interviewer would be willing to mentor you if you are convinced about his or her credentials.

By understanding the mindset of interviewers you can approach interviews differently and prepare better. Taking a lot more interest in the organization and role you are applying for can go a long way in improving your chances of landing that job.

AP-11 copy.indd 15 3/25/10 8:29:40 AM

Chowdhry - HCL Infosystems



Mahalingam - TCS

Wadhwa - Cisco

Singh - Patni

AN INDUSTRY-FRIENDLY INDIA:

BALANCED BUDGET/ BALANCED GROWTH

FROM PAGE 11

will expand their business in tier-2 and tier-3 cities.

Social welfare has been on the priority list. The industry views this as a positive move towards achieving India's goal to become a world power in the coming years. A significant move that is well appreciated is the 'National Clean Energy Fund,' which sponsors research and innovative projects in clean energy technology. The fund will be financed by coal. Both Indian and imported coal will be taxed at the rate of Rs. 50 per ton.

President and Country Manager of Cisco India and SAARC Naresh Wadhwa said, "The National Clean Energy Fund will position India as a leading force in finding ways to combat the imminent energy crisis. It will also simultaneously encourage research and technology projects in the clean energy space."

Wadhwa also said the proposed provision to simplify the foreign direct investment model in India is also a welcome measure.

"With the noble intention of spurring R&D across sectors, this budget paves the way for tax reforms on in-house R&D expenses, and also on contributions made towards scientific research to associations, colleges, universities and other institutions," Wadhwa said. "While research and development gets a leg-up, higher education and corporate tax reform waits for its turn. The UIDA took the lead among e-infrastructure initiatives, and broadband roll-out and major e-governance projects still needs to be addressed."

Amar Babu, managing director of Lenovo India, shares a similar view. He thinks the budget concentrates on the sustained growth and momentum in the industry, so it is welcoming to the industry.

"The attention on e-governance with the UID project and the Technology Advisory Group indicates the government's continued move to leverage information technology in critical projects," Babu said. "It is also setting an example by generating thrust in the renewable energy sector. Funds allocation in the SME sector is welcome, as that will allow for the sector to invest in IT for productivity and competency. Assigning GST will help clarify pricing norms and duty structures across the board."

The heavy stimulus package provided to the agricultural, infrastructure and energy sectors clearly indicates that development is a priority to the government. However, these goals can be achieved only if the government is able to tackle bottlenecks like infrastructure, government systems and corruption. According to S. Mahalingam, CFO of TCS, an increased thrust in key areas like primary education, health, infrastructure, rural development and financial inclusion would fuel broad-based growth and development. "An enhanced focus on SEZs to drive growth and employment and clarity on the tax regime is welcome," Mahalingam said. "This would aid the recovery for the IT industry. Social transformation and technology-enabled governance will gain momentum and this is good news for the country."

Ganesh Guruswamy, vice president and country manager of Freescale Semiconductor India, said, "India's broad-based counter-cyclic policy package to respond to the negative fallout of the global slowdown has worked wonders in controlling the falling GDP. Today, sectors like automotive and manufacturing have already shown double digit growth, which should propel other allied industries to grow as well. Liberalization of the pricing and payment of the technology transfer fee and trademark will boost the foreign investment environment."

Overall, the 2010-11 Union Budget is a pragmatic, forward-looking budget that provides clarity to business. In the words of Mukesh Aghi, chariman & CEO of Steria India, a European IT-enabled business services provider, "It is a progressive budget, with focus on urban and rural infrastructure development, education and healthcare, to help create a climate for balanced growth. Initiatives for leveraging technology as a tool for accountability and better governance are commendable."

The budget reflects the strong flavor of social inclusion signaled by the focus on development funding and the allocation for the education segment. With greater focus on infrastructure spending, this budget would help stimulate domestic demand for IT products and services. It also increases disposable income in the hands of the employees, which is beneficial to the IT industry in view of its high human-capital intensity.

AP-11 copy.indd 16 3/25/10 8:29:41 AM

NORTH KOREA:

DIFFICULT QUESTIONS HARD DIPLOMACY

FROM PAGE 13

existing security arrangements in the region as a hedge against uncertainty." Tanaka pinned his hopes on an unlikely trilateral relationship of Japan, China and the United States that he recommended engage in "strategic dialogue" for the sake of "confidence-building" and "military and strategic transparency."

The notion of Japan and the United States, bound in alliance under the U.S.-Japan Security Treaty signed half a century ago, working together with China might seem preposterous considering China's role in saving the North in the Korean War. Tanaka preferred to ignore that detail in his passion for unity vis-à-vis North Korea. "In order to have any hope of success in the six-party talks, the international community's approach to this issue must henceforth obey five guiding principles" that seemed to reflect top-level Japanese thinking just as Professor Wang's remarks might be seen as an expression of China's leaders.

"North Korea," said Tanaka, "must never be recognized as a nuclear state… policy consistence among and within the five nations is essential… contingency planning is imperative… a comprehensive, negotiated settlement is the only practical way forward… the six-party process must continue with informal negotiations before the talks resume." Like Professor Wang, Tanaka believed that "North Korea's recent movements have raised serious doubts about whether its leaders have any intention of negotiating with the international community in good faith." The real reason for espousing the five principles, he said, was "to ensure a soft landing" – that is, to work together to avoid bloodshed and chaos in case of the total collapse of the North Korean ruling structure.

Tanaka advanced from that general idea to the concept of an "East Asia Security Forum" – a term that sounded very much like a de facto alliance, but without actually suggesting military cooperation. Rather, he said, "Japan should work with the United States, China and other partners in the region to establish an East Asia Security Forum as the core component of a new multilateral security architecture focused on inclusive, action-oriented and functional cooperation." In the end, he said, such a forum's "primary mandate deals with transnational and nontraditional security issues" and "would serve as a complement to more traditional security frameworks in the region, in particular the 'hub and spoke' system of bilateral security arrangements with the United States." In other words, an East Asia forum might eventually take precedence over Washington's bilateral alliances with Japan and South Korea – though Tanaka avoided the suggestion that these alliances might sooner or later seem irrelevant. The forum, he said, "would be most effective" if membership were limited to ASEAN, the Association of Southeast Asian Nations, plus China, South Korea, Japan, Australia, New Zealand and the United States.

Tanaka advanced from that general idea to the concept of an "East Asia Security Forum."

That kind of talk, however, may not have convinced influential North Korea watchers in the United States. Evans Revere, president of the Korea society in New York and a former diplomat with a long background in Korea, Japan and China, warned that "China could be forced to make hard choices between traditional support for its ally/partner and a new approach." The North Korea nuclear issue had reached "a critical inflection point," he said, "posing an obstacle to efforts to create a stable and predictable Northeast Asia security architecture." Very soon, Revere believed, North Korea's "actions and rhetoric" would "make clear the path we are on." Under the circumstances, he said, such actions "may require fundamental reassessment" by the United States, South Korea, Japan and China of how to "manage the whole issue.

Nor was Revere entirely happy about the outlook of South Korea's government. He did not seem all that impressed by President Lee Myung-bak's repeated declarations that North Korea must give up its nuclear program as a precondition for the aid the North was accustomed to receiving in the decade of the Sunshine policy of reconciliation initiated by the late President Kim Dae-jung in 1998. The South "will need to decide whether it must now get tougher," said Revere, while the North "must ask itself whether intransigence risks sowing the seeds of even further isolation."

Revere posed difficult questions without necessarily providing answers. It was "important to ask," he said, whether "core DPRK positions had changed for better or worse." And was it conceivable, he wanted to know, that "the DPRK has made a 'strategic decision' – but not the one we had hoped for?" Revere doubted "strategic patience" would really be enough "in light of proliferation concerns." Rather, he said, there was a need for "a proactive strategy, and one that takes into account both changing internal dynamics" of North Korea and the "likelihood that Pyongyang is not inclined to give up its nuclear weapons." That pessimistic view jibed with the outlook of the Chinese and Japanese experts – no matter how much they might otherwise disagree on how to bring North Korea to terms on its nukes.

AP-11 copy.indd 17 3/25/10 8:29:42 AM

Enhancing Healthcare with Telemedicine

BY ANURADHA SHUKLA

Healthcare for all is a major concern for every organization from governments to small companies. For governments, it is not only a poll issue, it also helps them run the show more effectively by portraying them as people-friendly. Small companies also need to implement healthcare initiatives to help their employees at times of need and to motivate them to serve the organization optimally.

However, providing healthcare properly to the entire population is not easy due to the widely dispersed nature of people, especially in remote villages, and the rough terrain often separating them. Again, all kinds of specialties may not be available even in metropolitan cities. Expertise in a particular medical case may be too far away to reach and the timely arrival of help may not be possible in most cases.

The advent of telemedicine is a big boon to society. Telemedicine is the use of communication networks for the exchange of healthcare information to enable clinical care according to popular definition. The tool becomes more effective and efficient in providing healthcare in the presence of a modern broadband telecommunications infrastructure.

Real time telemedicine application actually provides "virtual transportation," allowing the patient and doctor to stay where they are. Medical care can be offered remotely, even in critical situations, saving many a life along with improving the quality of life of the people.

For poor countries, this comes as a boon as telemedicine links patients, doctors and hospitals by using technologies like ISDN and POTS lines. Developing countries will also benefit a lot from this exchange of clinical information.

In several Asian countries, healthcare services face problems like inadequate infrastructure and the presence of experienced doctors especially in rural areas. Although cities are well equipped, the population they serve is smaller. This forces people from towns and villages to travel to cities or even across the country for good medical care.

WHAT IS TELEMEDICINE?

When a doctor feels that he needs a second opinion on the next course of action to take with respect to a patients' case, he can opt to consult a specialist via telemedicine in case the other doctor is located elsewhere. Software for consolidating medical records is used to make an Electronic Patient Record or EPR. The EPR will be uploaded to the specialist's computer and will be used by the doctors for tele-consultation.

The specialist can check the clinical information and then advise accordingly. For making the process more foolproof, the doctors can have a videoconference to

AP-11 copy.indd 18 3/25/10 8:29:43 AM

make the diagnosis more accurate and decide on an appropriate course of treatment. The information shared between the doctors may be in the form of live bidirectional audio or video, recorded audio or video sent after the conference, medical records, medical images, sounds or output from medical devices such as pulmonary function instruments, electrocardiographs or ultrasound devices.

Some medical services seem to be well suited for telemedicine as they enable an easy exchange of information. Radiology reports need only low bandwidth messaging systems and remote psychiatric counseling to mentally ill patients is possible through videoconferencing alone. Echocardiograms, ultrasonographic images and electrocardiograms can be readily transmitted electronically in cases of heart ailments.

Many cases have been reported where successful surgeries have been conducted by doctors using audio guidance from specialists who can see the patient by video conferencing technologies. Even infants separated from parents and kept in specialty care centers can be monitored by parents. Telemedicine is also used to impart proper training via video conferencing to patients regarding asthma treatment and others.

In developed countries, medical care providers are able to remotely monitor patients, especially the elderly, for their pulmonary function or glucose concentration. If they find anything amiss they can immediately contact the patient or a family member by telephone, computer or TV to take remedial action.

The advancements in wireless technology have given the world wearable biomedical sensors, which allow remote monitoring of patients who can be mobile during the process. This helps detect early signs of health complications by offering doctors real time physiological data. This helps in the delivery of timely medical attention to terminally ill patients and the elderly.

Hurdles in the Way of Telemedicine Implementation

Wireless technologies like GPRS are not evolved enough to take on telemedicine services deployment. The costs of linking satellites and mobile devices are too prohibitive. The availability of secure connectivity also stands in the way of e-health services. Again, insufficient training and exposure to such technologies pose problems for most Asian countries unlike the West. The realization that telemedicine reduces the carbon footprint by avoiding medical travels is yet to gain ground.

Telemedicine data encompasses video, audio and conversational data from videoconferences. The data may be transmitted in real time or not. This necessitates a communication infrastructure that caters to all of the various types of applications.

WiMAX (Worldwide Interoperability for Microwave Access) technologies have been found to be suitable for the delivery of voice, video, ECG signals and medical scan information. It allows data transmission in various ways like point-to-point, point-to-multipoint and full mobile cellular access.

Telemedicine service providers in developing countries like India prefer point-to-multipoint access, as it has Non-Line-of-Site (NLOS) capability and is cost effective. The multiplexing technology also allows the transmission and reception of data simultaneously. This enhances telemonitoring and telemedicine implementations. The high bandwidth, interoperability, scalability, compatibility, portability, reliability and support for various classes of service make WiMAX suitable for telemedicine operations.

Telemedicine in Developing Nations of the East

With a large population living in rural areas in this region the selection of a proper technology becomes imperative. WiMAX technologies have been adopted by countries like India, as it helps in telemonitoring and is useful for telecardiology applications. Video conferencing with good communication systems enhance medical services in rural areas in emerging economies.

During the Pacific Science Congress held in Japan in 2007 an Asia Pacific Telemedicine Initiative was launched. The goal was to implement e-Health services in developing nations to prevent child mortality, fight diseases and improve the quality of life. The participating countries decided to collaborate in the exchange of expertise and reduce obstacles in the form of time and distance in providing optimum healthcare to their populations.

Bhutan, Fiji, Germany, India, Indonesia, Japan, Korea, Nepal, Pakistan, the Philippines, the Russian Federation, Thailand, Vietnam, Ukraine and the United States were represented in the discussion pertaining to e-health services and solutions. Collaboration between healthcare and telecommunication service providers is a must for implementing e-Health services or telemedicine. Regional cooperation further enhances the service as it allows medicos in different countries to combine their expertise in delivering medical care.

Initiatives have been taken to promote regional cooperation among the Pacific Rim countries by bringing together government, public, private, national and international agencies. Efforts are being taken by international and regional organizations to impart necessary training and educational programs for healthcare-professionals. Examples of some such courses are the ITU Telemedicine Expert Training Course conducted at Tokai

University; courses in the School of Telemedicine & Biomedical Informatics at SGPGIMS, Lucknow, India; and the telemedicine course at Holy Family Hospital in Pakistan.

Aid agencies like USAID, Japan's ODA and AusAID are working on making telemedicine a success. Also, ethical, political and copyright and patent issues are being resolved by international telecommunication agencies as technologies and software have to be used in making the deliverance of telemedicine smooth in developing countries.

Even small countries like Nepal have begun investing in telemedicine as the solution of the future to reach remote areas on mountains, etc., where there is only one doctor per 6,000 people. Nepal launched a project to study the feasibility of telemedicine in pathology, dermatology

CONTINUED ON PAGE 33

AP-11 copy.indd 19 3/25/10 8:29:44 AM

Importance of Data Backup and Restoration

BY VINTI VAID

Computers and data storage have come a long way since computers were invented. Data is generated in huge volumes by innumerable individuals and companies. It is not always possible to make hard copies of all that goes on in a computer. A backup of all the data, whether it is from banks, utilities, educational institutions, businesses or personal work, is imperative. On a small scale, data can be backed up on CDs and flash drives apart from the hard disk drives. These are far more evolved than the punch cards, magnetic tapes and floppy disks used some years back. However, magnetic tape backup is still in use today.

Importance of Backup

Backup does not mean just making a copy of the data and ignoring it. Backup is important because it makes the data available for continued use. More than making a backup of all data, the method to restore them to usability is critical. Also, backups have to be made consistently – not one-half of the database now and the other half later. Backing up large volumes of data and restoring them takes considerable time.

Organizations need to have a database administrator whose sole responsibility is to make a backup of all data and image files. It helps to make copies of entire hard drives by compressing the data and storing it. This provides archiving, but may hamper speedy restoration.

When disaster strikes, data recovery from the server or an entire data center may have to be done on the same site or at a different location. The backup method is considered good if it retrieves data in less time and fully in addition to providing a physically protected storage system.

Methods of Data Backup

Data backup may be of different types such as full backup, differential backup/incremental backup or agent-based backup. Off-site data backup is another option to keep data safe in the eventuality of floods, fire and other natural disasters. Off-site backup serves as insurance, preventing complete loss of data.

Most backup technologies that have been used until now are no longer sufficient. Technological advances in agents and optimized network transmissions are still not advanced enough to bring the data back into production. Copying data does not ensure restoring the data.

The uncertainties and disadvantages enumerated above will give a picture of what we actually need in a back up solution. The method of making whole-server backups has become quite popular now. Servers are of different types, namely file servers, print servers, directory servers and Web servers.

New technologies even take care of files that are constantly in use and hence, open, such as the Windows registry, Active Directory's database and some OS files. As these are open and constantly changing, they do not offer a complete file to be backed up. A technique available in backing up such files is Locked File Backup (LFB). The LFB logic may be embedded in the OS and it waits for a pause according to a preset time. During the pause, the LFB makes a copy to the backup application. Another technique is the Volume Shadow Copy (VSC) service from Windows. This keeps a local, on-volume backup of changed files. This will offer the previous version of the files to the backup application rather than the current version, which is open to change.

VSC is a native OS-level feature that allows administrators to specify the maximum amount of storage for a shadow cache. The service then automatically makes shadow files and will offer multiple old versions of a file. Windows Backup Server and Ntbackup support VSC.

Windows Server 2008 features Windows Server Backup, which can natively schedule backups and connect to remote servers and manage backups. The UI is optimized and it works on a file-by-file basis, although it makes a backup of entire volumes.

Based on different environments, companies can choose a technology like inter-site data replication, data rewinding and virtualization. Traditional backup-and-restore solutions are also preferred by many companies.

AP-11 copy.indd 20 3/25/10 8:29:45 AM

As a company grows, the problem becomes complicated and so a centralized recovery management system has to be put in place. The tools should integrate alert and notification so that data protection issues can be dealt with in a timely manner.

However, the latest in data backup and recovery is the use of virtualization techniques. Virtualization is used in server consolidation and in simplifying server management. This also helps in recovery management and disaster recovery. The technique allows standby sites to accommodate more systems while also maintaining standby separation between the systems.

Multiple virtual servers are run on a single host computer, thereby reducing costs involved in heating, power, racking hardware and network hardware. Server deployment is simplified with a reduction in the deployment time.

Backup sets will contain complete copies of organizational data and so they have to be protected by using the same security principles and layered security provided for the main server. Also, backup media will be portable and can be carried away easily. There should be an understanding of who will back up and restore data and who will authorize the process.

Only successful restoration ensures that the data was backed up optimally. So restore processes should be scheduled periodically to check the efficacy of the backup process. This will ensure that disaster recovery really works.

Data Backup in Asia

SafeComs Network Security Consulting in Thailand offers data backup solutions. Organizations can outsource data to such companies after verifying the degree of confidentiality, risk of disclosure and loss of data. Data loss can be avoided by proper encryption and secure storage methods. Using the services of such data backup providers also eases the work of the organization's employees who are already burdened enough.

"The problem facing most in-house IT staff," says SafeComs CEO Bernard Collin, "is that given a choice between fixing an immediate problem that's preventing a user from working right now and doing a scheduled backup, the immediate problem wins every time."

This goes to show that in spite of backing up being important, it does not get done on time. Scheduled backups and restoration plans may not be attended to. To avoid such scenarios it is best to outsource the backup job. Backup providers take care of daily backup schedules and maintain the safety of all backed up data.

Safecoms has developed a backup system called SafeBox. It incorporates an operating system, two hard drives and an uninterrupted power supply. Data gets stored in a sealed drive during the day and at night the data is compressed, encrypted and stored in a second drive. Periodically the second drive is removed and stored in a secure, fireproof storage location offsite.

Such an automatic system with minimum human intervention and well-maintained records is a fitting backup solution for organizations.

Not just companies, but individual users are susceptible to data loss due to hard drive crashes or other reasons. Hong Kong based Acronis recently launched the Acronis True Image Home 2010 Plus Pack as an add-on solution. It gives advanced home users an easy way to restore their files, applications and operating systems to dissimilar hardware.

The Universal Restore component ensures that if the machine is lost or stolen or in case a user wants to use another machine, the data and applications can be replicated to a physical or virtual machine. Users can restore dynamic volumes onto bare-metal disks or existing disks. The solution that supports WinPE allows users to install the latest Microsoft drivers, customized scripts, applications and plug-ins.

When users boot from their rescue media with Acronis True Image Home 2010, they are able to use more hardware than the existing one, and perform customized execution.

"Acronis has lately extended its consumer portfolio in order to meet specific home-user needs. The powerful features in this enhanced solution cater to home users seeking advanced backup and recovery capabilities, delivered in an easy to use format," said Jason Donahue, president and CEO of Acronis.

Universal Restore ensures that all data is protected even if the user's machine is lost or stolen.

Data de-duplication is another way to achieve data backup. Duplicates of data are made while storing data. This technique results in the making of multiple duplicates, which requires more storage. The redundant duplicate data can be removed by data de-duplication or single-instance storage. Only one copy of data is left, provided with data indexing, as it may have to be restored at some point in time.

In Asia, there is a significant growth in backup and recovery markets. Data de-duplication solutions are considered dependable, scalable and inexpensive as they reduce cooling and power requirements. In a virtual environment, data de-duplication is very useful, said Vivekanand Venugopal, VP, solutions, products and services, Asia-Pacific region for Hitachi Data Systems.

Kim Wang, of ESG-Sino, Enterprise Storage Group's Greater China operations, said that the low-end backup market will expand, as there is a significant increase in awareness for backup systems. Companies are trying to implement them to reduce data de-duplication problems. Many companies like IBM, Dell, HP and Falconstor are looking towards the lucrative Asian market in this sector.

The presence of data domains is growing in the Asian storage market especially in the financial and telecom industries. Major markets are China, Hong Kong, Taiwan, South Korea, Singapore and India. There is more awareness regarding disaster recovery and planning for business continuity. This has resulted in demand for backup by data de-duplication, use of disaster recovery and planning for its implementation.

The Asian market is fast adopting data backup implementations in spite of the economic downturn. They are striving to run their companies more efficiently and in real-time, making better use of their resources and optimizing the storage environment. IT budgets now include storage virtualization, tiered storage and data de-duplication. This will witness a growing demand for suitable data storage solutions in Asia.

AP-11 copy.indd 21 3/25/10 8:29:45 AM

Lights Going Out for Korean, Asian Online Monoculture

BY MATTHEW WEIGAND

South Korea is one of the most Internet-wired countries, and also bases much of its economy on the latest technologies. However, approximately 99 percent of the country is completely reliant on a decade-old bit of software that is beginning to seriously hold the country's Internet culture back. Internet Explorer 6 (IE6), released in 2001, is a requirement for doing anything with a Korean bank, online shopping mall or social networking site. However, the ancient technology is also a rusty sieve, and an Internet hacker's dream of un-patched security vulnerabilities. It must die.

IE6 will also soon stop being supported by Microsoft when the company drops support for Windows XP, which means that the browser's problems will never be fixed. Google Docs and YouTube officially stopped supporting IE6 in March of this year, and it is expected that other sites will soon follow. Some, such as Facebook and Digg, have been advising users to upgrade since early 2009. Microsoft itself has said that IE6 should be dead and gone, and has supported efforts to upgrade to Internet Explorer 8. This leaves Korea with the prospect of being left behind, in the technological Internet back room, with the lights soon to go out.

But it is not just Korea that has this problem. IE6 is still the most popular browser in China, India, other countries in Asia, and most of Africa as well. In China, the country's Green Dam censorship software only censors web sites accessed with IE6. China's banking and online shopping sites also have the same ActiveX lock-in problems that Korea does. In India, IE6 numbers are dropping steadily in favor of Firefox and Google Chrome, but they have not yet reached a majority.

Ancient History

In Korea, it all started in 1998 – ancient history in the Internet Age. The 128-bit SSL protocol had been banned from being exported out of the United States and was not available until December 1999. The only other SSL encryption option was a 40-bit protocol, but South Korean legislation did not allow it. Because the demand for 128-bit encryption was so strong, the Korean Information Security Agency funded development of a block cipher called SEED. The only way to ensure that client computers would support SEED encryption was to force them to download a SEED plugin, in either ActiveX control form for IE users, or NSplugin form for Netscape Navigator users. These plugins required a certificate issued by a Korean government authority. When Netscape declined in popularity, the ActiveX plugin for security became the only way for Korean Internet users to use encryption. And by the time 128-bit SSL encryption was cleared for export outside of the United States, Korean companies had already standardized everything based on their unique SEED cipher. SEED and government-issued security certificates are still in use today, and of course only in Korea.

Outside of Korea, IE6 has been becoming less popular. In the United States, it is used less than 10 percent of the time now. However, its global average is 20 percent, because it is used much more often in Asia. In China alone, the decade-old browser has a 50 percent market share. The market share of all version of IE in Korea is even higher, at 99 percent. But outside of Asia, in 2010, many Internet users are actively looking forward to the death of IE6. A Denver-based company called Aten Design Group has created a web site ie6funeral.com to celebrate the imminent death of the browser. The web site stated that the browser died of a workplace

AP-11 copy.indd 22 3/25/10 8:29:47 AM

injury at Google headquarters, and announced a date and time for the funeral. Web developers have long disliked IE 6 because of its peculiarities in interpreting HTML and CSS commands.

Unfixable Flaws

What's so bad about IE6 anyway? The problem is ActiveX. ActiveX is a set of commands that IE6 accepts which allow web pages to interact with normal executable programs on a computer's machine. The protocol is designed to allow web pages to do more than HTML allows. Unfortunately, this "do more" functionality includes hundreds of things that malicious web site creators can use to introduce viruses to computers that visit their web pages, and has been a constant source of problems for literally hundreds of millions of people.

ActiveX has been widely criticized in security circles since its inception, and hundreds of vulnerabilities using it have been found in the 10 years since IE6 was released. Many of them have been patched, but according to the security company Secunia, IE6 still has 24 known, un-patched vulnerabilities. The specific vulnerabilities are all closely related, and can be summarized as ActiveX having too much power. Using ActiveX, a web site designer can make all visitors to its web site automatically download and run any executable file. This means that the web site designer is completely in control of a visitor's computer. IE7 and 8 changed ActiveX to make them safer. They required user agreement before the files would be downloaded and run. This is marginally safer, but it initially broke the functionality of many Korean web sites. Over the past few years, most of them have become compatible with IE7, but it has been a slow process.

Hackers used security vulnerabilities in IE6 during two famous cyber attacks in 2009. The first was a massive distributed denial-of-service attack against Korean and U.S. government and financial web sites, which was executed by an army of compromised computer systems. Most of the systems involved in the attack were located in South Korea, and the systems were compromised using a vulnerability in IE6 and a popular file-distribution system, WebHard, which is dependent on ActiveX controls. Despite the press generated by the attack, no lasting damage occurred other than some companies being forced to take down their web sites for a few days.

The second attack in December 2009 was much more malicious. It is suspected that China-based hackers exploited a flaw in IE6 and Adobe Acrobat documents to steal proprietary information from dozens of international companies working in China, including Google. Also, the flaws were used to target emails of human rights activists inside and outside of China. Google issued a statement letting the cat out of the bag and other companies followed suit, admitting that their computer systems had also been compromised. Google also said in the same statement that it was no longer willing to cooperate with the Chinese government in censorship of its search engine within China because of those attacks, although that issue is still up in the air.

IE6 has also always had problems with rendering HTML in a standards-compliant way. It only ever partially supported CSS 1.0, which means that web sites have always looked different in IE6 and other web browsers. Web developers have either adapted to write difficult and hard-to-understand fixes for IE6 peculiarities, or have given up supporting other platforms and written all of their web designs for IE6 only. The browser also does not support the partial transparency of the PNG image format, hampering its growth and popularity in web design. The browser is also notoriously unstable. Single lines of HTML code inserted in a web site can cause it to crash, and have been well documented.

March of Progress

Until recently, these problems have been overlooked or tolerated in the Korean Internet world. IE6, 7, and 8 were all free, and they worked perfectly fine for most people. The fact that many Korean computer users were familiar with the inevitable degradation of a computer system, which led to an unavoidable reinstall of the OS was shocking to outside observers such as this reporter, but it is par for the course. The dissatisfaction started when the iPhone was finally cleared for sale by Korean government regulations. Korea Telecom has sold more than 200,000 iPhones since the end of November 2009. Savvy Korean technology users began complaining that their banking services did not include iPhone support, due to the culture of relying on ActiveX for security. This reliance is mandated by the Financial Supervisory Service's (FSS) guidelines for financial services provided on smartphones, which decided in January of this year to subject smart phone financial services to the same regulations that govern online transactions on personal computers. This means public key certificates issued by the government. And that means ActiveX. The iPhone simply does not support ActiveX, or IE at all. It uses the Safari web browser.

The growing popularity of other web browsers such as Safari, Chrome and Firefox is another trend that cannot be ignored. Each of the browsers has advantages and disadvantages, but they all have one thing that IE6 does not – full support for all the latest web standards. Making a web site using strict web standards is something that works great in theory, and in the other three browsers, but not IE6. Also, the newest version of HTML, HTML5, will eventually come out. The particulars of the language are being worked out now, and it is already partially supported by Safari, Chrome and Firefox. The language is expected to enter "recommendation" stage in 2012. There is absolutely no chance that IE6 will be able to support HTML5. The only IE-based browser that will do so will be Internet Explorer 9.

Korea Must Upgrade

In this case the solution is simple and clear. Korea's various financial institutions, online marketplaces, social networks and government agencies must upgrade to browser-independent solutions for their various online

CONTINUED ON PAGE 33

AP-11 copy.indd 23 3/25/10 8:29:48 AM

Leveraging Workforce Management Software

BY ANURADHA SHUKLA

Workforce management helps organizations deal with problems arising in companies, especially call centers, whether big or small. Call center workforce management deals with issues such as how to exceed service levels while at the same time controlling payroll costs.

Forecasting, scheduling and real-time compliance will make daily workforce management more effective. This also helps avoid over or under staffing and improves service levels by making sure that agents are putting in their best efforts when needed.

Workforce management software or solutions can be leveraged by small to large companies in a wide range of industries and verticals. The suites of applications include all or some of the following features: quality assurance and recording, speech analytics, surveying, performance management and e-learning.

Organizations will be able to enhance call center operational efficiencies and customer service. These systems feature advanced analytical capabilities, which are fast and simple too. Call center managers will be able to forecast accurately the number of agents that will be required to man a shift. By calculating the call volume from the historical data captured, workforce management solutions help decide on the number of agents that will be required to serve customers most efficiently.

Advantages of Workforce Management Software

Irrespective of the size of the call center, workforce management is a challenge. Organizations may want to evolve from spreadsheets to a Web-based workforce management systems. The Web-based system will need computers and an Internet connection and the software is also available on a subscription basis for small companies, eliminating the need for downloads.

It is imperative to correlate the number of agents in the call center with the call volume, otherwise there may arise a situation where there are more agents and fewer calls or more calls and an insufficient number of agents. Both give rise to monetary loss owing to customer dissatisfaction due to longer hold times or idle agents.

Workforce management software can work for small companies too. Fewer agents does not mean easy scheduling and it has been proven to be more difficult to optimally schedule with fewer agents. The call center performance will be affected greatly as even the absence of one agent makes a big difference when the total numbers are less.

Most call centers function as multi-channel contact centers, as they handle e-mail and Web chat besides phone calls. In a small call center, only two or three will be trained for specialty services. If one of them is absent it creates a void in delivering services to the customer's satisfaction. Such shortcomings prove beyond a doubt that workforce management software is essential for small organizations as well.

Here, also, the software leverages the historical data collected to predict and forecast the volume for each channel for each shift and will recommend the number of agents who have to be scheduled for that particular shift with accuracy.

Managers in call centers have to make sure that agents stick to their schedules, otherwise there will arise problems like customer dissatisfaction due to agent inefficiency. Agents should also be encouraged to follow time, whether in reporting for work or while leaving. Other activities like training and coaching should also be scheduled from time to time and agents must also follow those schedules diligently.

With the recession fading in some parts of the world and still going strong in others, managers should know how to derive maximum benefit from the resources they may have. With cost cutting comes a reduction in the number of employees/agents in a call center. Needless to say, this translates into more work for those who were fortunate enough to remain. But this may lead to fatigue owing to an increased workload.

To avoid such a scenario, cross-training agents is a must. All of the agents are trained to handle more than one contact type including Web chat, e-mail and phone. Mixing up the tasks each agent is responsible for helps them overcome burnout or boredom and also helps in enhancing individual performance. This reduces the drudgery of monotony and increases productivity.

In successful models, agents are made to deal with

AP-11 copy.indd 24 3/25/10 8:29:49 AM

even unrelated tasks such as checking order invoices, packing orders and others, depending on the type of company the call center serves. This uses the free time during low call volume and improves efficiencies.

The process of scheduling agents for different activities without affecting the service levels for any of the channels is accomplished by using workforce management systems. These can help ensure accurate scheduling of cross-trained staff covering the whole day, effectively cutting down on agent burnout and increasing productivity as a whole.

The management software is capable of finding out how many agents are required for a particular shift by integrating with the call center database and the company's CRM system.

The workforce management system can forecast call volume from historical call volume patterns, time of season and past customer activity. The software is flexible enough to accommodate external or internal events that will impact call volume like a recently launched marketing campaign or other activities both inside and outside of the company.

Also, in case an agent fails to switchover to the next task according to the recommendation of the workforce management software, an alert is raised which will inform the manager so he or she can take immediate action to rectify the situation. In previous methods when spreadsheets were used, it was not possible to detect such a flaw until it was too late.

Mobile Workforce Management

Having a mobile solution integrated with scheduling offers real-time, ongoing optimization of what is going on in the field when the mobile workforce is on duty. Real-time decision making is facilitated as engineers in the field can give feedback regarding on-the-ground realities. This shows that workforce management software is not only for a call center-type of environment.

Service managers will have greater visibility of the field force and it will ensure higher levels of resource utilization. Also, field personnel can be assigned one or two jobs at a time instead of giving all the jobs he has to complete that day in one go. The manager will know if a job is taking a longer time than scheduled or if the job has been completed early and the engineer on duty has more capacity or time left.

Cloud-Based Workforce Management Solutions

Many companies are in favor of "on-demand" solutions such as cloud-based call center software. Outsourcing workforce management has its advantages such as easy and rapid implementation, simple integration and less risk.

Such Software-as-a-Service (SaaS) or cloud-based call center solutions help companies reduce the time and costs involved, as the vendor will take care of the hardware, network infrastructure and performance of the system.

Other advantages include greater scalability and better integration. Call centers will benefit from the advanced solutions which will be automatically implemented by the vendor. This eliminates the need for periodic upgrades and expenses on new software. As such services are made available on a subscription basis, companies can trial the software and check out its suitability for their purposes. If suitable, it can continue with the solution or else go for another.

DMG Consulting released a report on the future of the call center software solutions' market saying that it will grow by 35 percent in 2010 and 20 percent in 2011. The reason given was the recession, which has driven companies to leverage cloud-based call center solutions to economically make use of the latest technology.

Besides reducing call center operating costs these SaaSs or cloud-based solutions help managers increase schedule adherence, reduce shrinkage, increase agent satisfaction and also improve performance and productivity along with the regular scheduling capabilities.

Companies in Asia-Pacific

Rostima Asia Sdn. Bhd. in Malaysia develops and supplies enterprise workforce management solutions. These solutions help organizations to optimize their staff schedules by matching workload to staff resources so as to increase operational efficiency, reduce staff costs, improve service levels and retain staff. Rostima provides unique algorithms that help transport companies find the optimal plan and roster while meeting workplace rules cost-effectively.

Rostima caters to the gaming, ports, aviation, transportation, retail and service sectors. The company leverages the services of business professionals with operational experience in planning and management and uses their practical experience to serve customers optimally. The solutions are designed to offer real and tangible financial savings and benefits from the implementation of enterprise workforce management solutions.

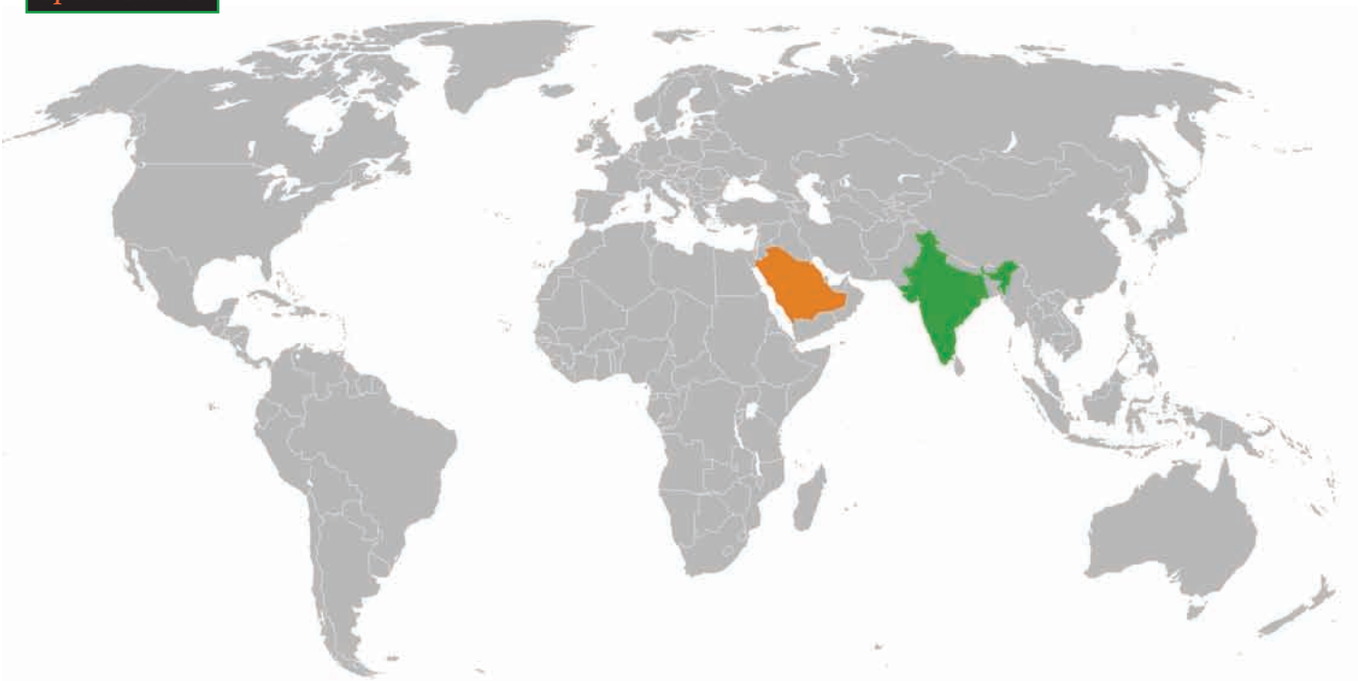
Indian company Ramco Human Capital Management's workforce management consists of a central repository for employee information. This self-service capability provides a portal for employees to manage personal information. The components of the system includes employee information, HR administration, employee assets, grievances and disciplinary action.

VQ Alert is a workforce management solution developed by Sydney-based Call Design. Aspect, a unified communications solutions provider, and Call Design, a contact center provider, are marketing VQ Alert. This is an agent adherence solution, which, along with Aspect's workforce management capabilities, provides call-center agents with real-time notifications of changes in work schedules.

These alerts are programmable and can be sent to agents or agent groups, creating a positive work culture in the call center. VQ Alert is being leveraged in call centers in the Asia-Pacific region by American Express and St. George Bank.

All over the world, workforce management solutions are being used increasingly to tackle labor problems. It helps companies arrive at actual required labor strength so that they are not understaffed and so all workers are fully engaged. Besides helping organizations optimize output from all employees, the workforce management solution also prevents employee burnout.

AP-11 copy.indd 25 3/25/10 8:29:49 AM



GROWING INDIA-SAUDI ARABIA TIES

BY MATTHEW WEIGAND

For the first time in almost 30 years, the Prime Minister of India visited Saudi Arabia from Feb. 27 to March 1. Prime Minister Manmohan Singh spoke at length with King Abdullah bin Abdul Aziz about security, economic, energy and defense issues. By the end of the visit, they had signed 10 different agreements. This is the result of negotiations that began with the king's visit to India in 2006, where he spoke about creating comprehensive ties between the two countries and was honored as the chief guest at the Republic Day parade in New Delhi. With Prime Minister Singh's visit, the ties are realized. As an added bonus, Manmohan Singh received an honorary doctorate from King Saud University. "As a result of our interaction, we have agreed to upgrade the quality of our relationship to that of a strategic partnership," Singh said when he returned to India.

AP-11 copy.indd 26 3/25/10 8:29:52 AM

Prime Minister Manmohan Singh

King Abdullah bin Abdul Aziz

The strategic partnership between the two countries covers economic, trade and investment issues. Also, the agreement covers energy security, research & development investment in renewable energy resources and mutual investment in the upstream and downstream energy activities of both nations. The agreement also includes a pledge for both countries to use space for only peaceful purposes. Finally, the agreement addresses cooperation in dealing with security and terrorism issues. The fact that the agreement was completed at all is a signifier of a new era in South Asian politics.

The prime minister was accompanied by a delegation of ministers, officials and businessmen, who were also busy. There were reports of two private sector agreements reached during the three-day event.

Energy Needs, Again

Saudi Arabia supplies a full 30 percent of India's crude oil each year. India's steady growth will no doubt require more energy in the future. India is voraciously reaching out for all forms of energy from nuclear to solar, and will maintain a healthy diet of oil as its economy expands. Securing a steady supply from Saudi Arabia is essential for India's future growth.

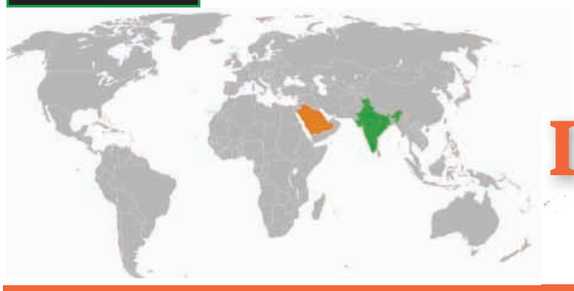
The joint declaration signed by both parties, being called the Riyadh Declaration, speaks a lot about complementary needs and interdependence, which means both countries should invest in each other's energy infrastructure. There are also some vague references to developing alternative sources of renewable energy.

New Political Era

Despite the two countries' ancient historical ties, India and Saudi Arabia have found themselves separated by the 20th century's political climate. Now, however, as circumstances change in the 21st century, both countries find themselves with similar interests and goals. And, as always, one of the most important goals is bilateral trade. India's post-liberalization, bilateral trade sharply shot up, especially after 2000, and stood at US$25 billion in 2008-09.

India is now the fourth largest investor in Saudi Arabia, ahead of Japan. Indian investments are booming, amounting to $2 billion in 2009. Indian companies have also established more than 500 joint ventures in Saudi Arabia. From management and consultancy services, information technology, construction and telecommunications, to pharmaceuticals, there are many new businesses popping up in the kingdom. There are

AP-11 copy.indd 27 3/25/10 8:29:58 AM



INDIA-SAUDI ARABIA

also joint ventures between companies in design, consultancy, financial services and software development. Even before the agreement was signed, Indian companies saw major opportunities in almost all sectors of the Saudi economy, including higher education and technical education. Indian IT companies have already been involved with a growing number of Saudi companies that are outsourcing their IT requirements.

Prime Minister Singh addressed the Council of Saudi Chambers of Commerce and Industry, inviting Saudi entrepreneurs and investors to return the favor and invest in "construction, manufacturing, pharmaceuticals, health, agriculture, energy, telecommunications, biotechnology, tourism and other service sectors."

Security and Terrorism

Both India and Saudi Arabia find themselves the targets of terrorism. The attacks against Mumbai last year and continuing violence vaguely associated with Pakistan worries Indian leaders, while Saudi Arabia is still a target of Al Qaeda for its ties to Western powers.

Prime Minister Singh said that he spoke with King Abdullah about Pakistani terrorism, mentioning that he asked the King to try to influence Pakistan to tone it down a bit. This has sparked some controversy in India itself, because the government's policy so far has been to not resort to third parties on this issue. However, it remains to be seen what will develop on that front.

India is now the fourth largest investor in Saudi Arabia, ahead of Japan.

Another security-related issue is an extradition treaty signed by both parties. The two countries agreed to cooperate in stopping criminal activities like money laundering, narcotics, arms trafficking and human trafficking. India is one of the first countries outside of the Middle East region with which Saudi Arabia has signed an extradition treaty.

Scientific Cooperation

The exchange of scientific personnel and technology is one of the more overlooked aspects of this new agreement, but it has great potential. Dignitaries from scientific organizations of both countries signed their own agreements during the visit. The result of one of those agreements is to set up an India-Saudi Arabia Center of Excellence in ICT in Saudi Arabia, at the King Abdulaziz City for Science and Technology (KACST). There will be three major activities at the center: R&D, IT consultation and training on the use of information technology. This center will be used to help Saudi Arabia take a greater advantage of IT, from the individual to the organizational level. There is talk of building five more national institutes of science in Saudi Arabia with Indian cooperation.

It Just Makes Sense

Similar to the CEPA between India and Korea that went into effect at the beginning of this year, India's agreements with Saudi Arabia just makes sense. The CEPA with Korea is about technological trade, economics and energy. The agreement with Saudi Arabia is very similar, with an extra emphasis on security. India is growing, India's economy is hungry, and India is reaching out to those countries around it that are able to feed its growth.

Nobody has been able to ignore the fact that the global financial crisis pretty much passed India by. While the rest of the world was moaning in pain and talking of bailouts, India had steady 8 percent economic growth and plenty of investment money to spread around. Indian companies specifically have a lot of investment already in Saudi Arabia, and the prime minister gave a speech inviting more Saudi investment into its own economy. The extremely large size of India makes them nearly infinite in term of opportunities for investment, and the country's steady growth means that those opportunities will become greater in the future.

Saudi Arabia is the latest payoff of what is rapidly becoming a signature move on India's part – the Republic Day Diplomacy Move. Invite a foreign leader over for Republic Day, give him the spot of honor, and in a few months or years you have increased relations. The past few years of Republic Day celebration, the list of guests have read like a shopping list of countries that India is interested in. And that's not a bad thing, since there is no better way to attract business than by throwing lots of parties.

India is not only reaching out to the Southeast Asian nations and East Asian nations like Korea and Japan, but it is also reaching west to the Middle East. All of the countries surrounding India are becoming more deeply involved in its economy. This is actually reminiscent of the United States at the beginning of the 20th century – coming out of a long, introspective time and looking

AP-11 copy.indd 28 3/25/10 8:30:01 AM

for more trade relations with countries far and wide. However, the United States chose to exercise gunboat diplomacy in the early 1900s, whereas India is practicing Republic Day Diplomacy. Let us hope that India is not interrupted in this move in the same way that two world wars interrupted the U.S.

This is also the latest chapter in India's whirlpool, which I have spoken about in previous articles. India is beginning to draw more resources to itself, possibly diverting them from other end users. With increased ties with Saudi Arabia, what Saudi oil will be sent to India and diverted away from other markets? Will this increase the cost of the country's oil with good consequences for its competition and bad for its customers? Saudi Arabia has a long history of close cooperation with the United States – will the new thrill of India's attentions draw the country away from its old lover to the new? The implications could be world altering.

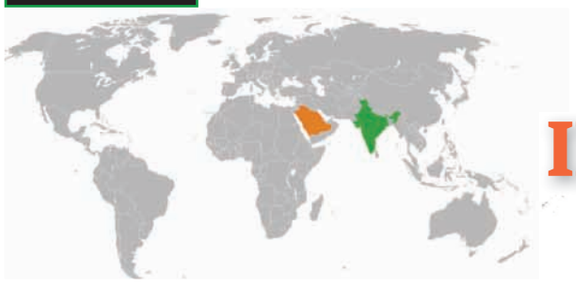
For a student of history, this move by both countries is significant by the fact that it happened at all. For the past 50-odd years, India and Saudi Arabia found themselves on different sides of a global divide. Saudi Arabia had been very close to the United States, while India, with its geographical location, found itself giving at least appeasement to Russia and China. While neither side were directly involved in the Cold War, they found that political necessity kept them apart. Their increased ties in 2010 show that there is now no obstacle left for their cooperation, and that the Cold War is truly dead. India is able to shift the global balance of power to more heavily rely on itself rather than being influenced by one sphere or another. It is a new developing paradigm in international power.

Another significant aspect of this event is the comments made by the prime minister that King Abdullah might help speak to Pakistan on India's behalf. This is a controversial issue in India, because apparently some politicians believe that India and Pakistan should take care of their differences without outside interference. But despite this political opposition, the prime minister is reaching out to other countries for political aid. This is a sign that India is once again looking outwards more than it ever has since its independence.

There is one major difference between the India-Korea agreement tone and the India-Saudi agreement tone, which is the talk of technology. Korea and India both have strong IT industries that complement each other – India has a strong software sector and Korea has a strong hardware sector. Saudi Arabia is not known for either a strong hardware or software sector, and therefore is looking to import both of those. With ample energy resources the country should have no problem funding such knowledge imports and, in fact, it has extensive plans to build new technology institutes around the country. South Korea has shown some interest in being involved in this project as well. So it is possible that South Korea, India and Saudi Arabia could create a technological alliance to further shift the global balance of power, given enough time.

Basically, there should be no big surprise over the new cooperation between India and Saudi Arabia, just like there is no real big surprise for India's CEPA with South Korea. In all cases, the parties just have what the other needs, and the governments are simply following popular trends set up by private business already. India is a rising star, and Saudi Arabia simply recognizes it. Conversely, Saudi Arabia is a wealthy, energy-rich country, and India wants both the finances and the energy to continue to fuel its growth. Once again, it seems to be a simple match, founded on solid principles, with almost limitless potential. It is also something to look forward to seeing developed.

AP-11 copy.indd 29 3/25/10 8:30:02 AM



INDIA-SAUDI ARABIA

A NEW ERA OF STRATEGIC PARTNERSHIP

BY DR. MEZYAD ALTERKAWI

For a long time, the Kingdom of Saudi Arabia has been a strategic partner for India in the Middle East. The recent visit of the Indian prime minister further strengthened ties between the two at many levels, one of the most important being to improve the economic relationship between the two nations. According to recent Saudi Arabian Monetary Agency (SAMA) reports, Saudi imports of Indian goods stood at SR18 billion (US$4.86 billion), making India the sixth-largest source of Saudi imports, accounting for 12.4 percent of the Kingdom's total imports from Asia in 2008. Saudi Arabia comes fourth after China, the United States and the United Arab Emirates as India's most important trading partner globally.

The presence of three senior ministers, top officials and several CEOs made the visit a very prestigious one indeed, coming four years after the historic visit of King Abdullah bin Abdulaziz of Saudi Arabia to India in 2006. The King's visit resulted in Saudi Arabia replacing the UAE as India's number one crude oil resource, with exports jumping from $500 million to $23bn in 2008. As India's largest supplier of crude oil, Saudi Arabia is sure to benefit from increasing energy demand for one of the world's largest economies.

The balance of trade between the two states has consistently swung in favor of the Kingdom, its trade surplus standing at SR67.3 billion ($18.2 billion) in 2008. Indian Prime Minister Manmohan Singh was confident that India's GDP will grow at 9 to 10 percent annually over the next 25 years and has sought Saudi investment in sectors ranging from infrastructure to hospitality. The two leaders emphasized "the importance of strengthening the strategic energy partnership based on complementarity and interdependence, as outlined in the Delhi Declaration (of 2006), including meeting India's increasing requirement of crude oil supplies, and identifying and implementing specific projects for cooperation including in the areas of new and renewable energy."

Both leaders also directed the Joint Working Group on Energy to continue adopting all appropriate means to achieve the same, the Riyadh Declaration said. King Abdullah later said that, "Prime Minister Manmohan Singh's visit and the signing of a number of agreements and memorandums of understanding reflect a new era of strategic partnership between the two countries." The prime minister was also conferred an honorary doctoral degree from King Saud University presented by the University Rector Abdullah Al-Othman. Later, the Indian External Affairs Minister, S.M. Krishna, called the visit "highly successful."

Dr. Mez Alterkawi is an associate professor in the Department of Urban & Regional Planning at the College of Architecture & Planning, King Saud University.

AP-11 copy.indd 30 3/25/10 8:30:11 AM

imagine
the innovations.

- Register free for the world's largest consumer technology tradeshow at **CESweb.org** by using priority code M41. Don't delay; registration increases to $100 October 1. Find the best hotel rates now at **CESweb.org/hotel**.
- Exhibitors, reach an international audience—reserve booth space today at **exhibit@CESweb.org**.

2010 International CES®

WHERE ENTERTAINMENT, TECHNOLOGY AND BUSINESS CONVERGE

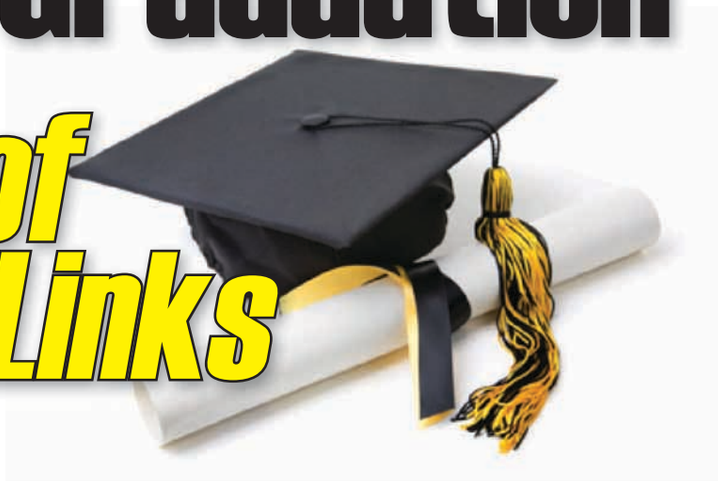
PRODUCED BY CEA®

JANUARY 7–10, 2010
LAS VEGAS, NEVADA
CESWEB.ORG

AP-11 copy.indd 31 3/25/10 8:30:17 AM

Incubator Firm Failure or Graduation

– The Role of University Links



BY STAFF REPORTER

Technology incubators are a special form of business incubator. They focus on new enterprises whose operations are based on novel technological ideas that are likely to lead to a marketable new product. They provide common services as well as financial, legal and business support to these newly formed enterprises. The incubation process ends after a limited period of time, either with the "graduation" of successful start-ups that move outside the incubator, or with the termination of incubation arrangements for one reason or another.

Technology incubators are a growing part of the institutional infrastructure for university-industry technology transfer, and indeed practitioner publications tout the benefits of incubation for technology commercialization.

Research shows that university-linked incubator have a greater edge when compared to incubators that are not university linked. One of the most important benefits is the availability of experts (mentors) who are equipped with the latest research in specific fields and can provide consulting advice on a product. Other important factors include access to specialized laboratories and facilities, access to knowledge based assets that are often needed for technology-based start-ups and intellectual property rights.

The involvement of a university faculty member as an advisor to a startup firm or as part of its managing team reduces the chances of a firm's failure. On the other hand, a faculty member's engagement with a firm sometimes slows down the firm's graduation process due to the faculty member's dual roles; one as a researcher in a university and the other as a member of a startup firm.

Entrepreneurs and incubator managers need to be aware of the trade-off they might encounter when incubating a new venture that relies on a strong university link either through a technology license and/or having one or more university faculty members as part of the management team.

Incubators that are linked to science parks have a major advantage in creating an image and credibility with customers and suppliers. Thus, the incubators that have strong links with universities and are located within science parks are likely to get the most benefits.

AP-11 copy.indd 32 3/25/10 8:30:18 AM

Enhancing Healthcare with Telemedicine

FROM PAGE 19

and radiology some years back.

Local healthcare workers were brought under the scheme to develop and operate telemedicine projects. Nepalese living in Butwal, Jhapa and Bhaktapur are being served by telemedicine projects. Health professionals at HealthNet Nepal and the Ministry of Health came together to make this project a success.

Dr. Alok Roy, Chairman & Managing Director of Medica Synergie Pvt. Ltd., was instrumental in conceptualizing and implementing the Integrated Telemedicine and Telehealth Project or ITTP, Asia's telemedicine initiative. According to him, telemedicine not only takes medical care to far flung places by eliminating impediments like time and distance, but it also helps in critical care treatment. The timely intervention of a specialist many miles away may help save a precious life. Specialists can keep themselves informed about a case and provide medical guidance to the patient and the doctor attending to him/her without any of them leaving their towns.

According to Sajeesh Kumar, PhD (Telemedicine), from the Centre of Excellence in e-Medicine, University of Western Australia, for telemedicine to see more success in the Asia-Pacific region, local skills and infrastructure have to be leveraged based on local demand. Technology management, staff development and the education of concerned people are important requirements.

In the Asia-Pacific region, most specialists live in capital cities and rural areas remain underserved. There is a tremendous growth in telecommunication channels and Internet in this region, making telemedicine a viable solution to enhance medical care. Proper coordination between the telecom and health care industries will increase consumer confidence and promote e-health.

Telemedicine has been found to be successful in providing wound care remedies with better healing. Patients are also satisfied, as this means less time spent waiting and traveling to far off hospitals. Doctors can monitor and help in the treatment of patients by examining the patient by video conference and guide a nurse or doctor to take proper action all from a remote location. Telemedicine also increases collaboration between specialists and helps arrive at treatments for new maladies and enables them to attempt new methods of treatment based on consultations and deliberations.

Lights Going Out for Korean, Asian Online Monoculture

FROM PAGE 23

offerings. But it is easier said than done. The reason that they do not do so already is because government regulations require that they support ActiveX. This is a bureaucracy problem.

The Korean government, in its many different ministry incarnations, has done a lot to help the hardware technology industry for the last 40 years. It can arguably be said that the Korean government built its high-tech hardware industry from the ground up, practically forcing companies like Samsung and LG to stop producing non-technology-related goods and making them make radios with the threat of large fines. Later, it was TVs, then computer components. In this hardware industry, the heavy hand of government had been exactly what was required.

But in the software industry, or the Internet, the heavy hand of government has only been keeping the country back. There is very little Internet innovation within Korea. In fact, most Internet-related startups in Korea look overseas for both their users and their inspiration. Korea's Internet culture is trapped by government bureaucracy. It is trapped in the last decade, at the mercy of even the least skilled hackers and the most powerful viruses. It is trapped away from innovative paths of development, by outdated regulations and outmoded forms of security. In the case of the Internet, the Korean government should simply step back and let it evolve on its own. Internet trends are just too fast to regulate, and any attempt will simply stifle the development to the detriment of the countries involved.

This is not going to be easy, but the first cracks have already been created. The Korean government regulations for smart phones to include an outdated Wireless Internet Platform for Interoperability (WIPI) functionality that is only required in Korea were bent in order to let the iPhone into the country, and the result was 200,000 smartphones free from outdated government requirements. There will be a second crack in the bureaucracy, and then more and more. No one knows how much new technology it will take to push Korea, kicking and screaming, into the 21st century, but the new technology is not letting up. Eventually they will have to cave.

AP-11 copy.indd 33 3/25/10 8:30:19 AM

TELEMATICS Beyond Navigation

BY RAJANI BABURAJAN

The telematics industry in China, South Korea and Japan is moving beyond the traditional navigation services to explore new opportunities on the commercial front. Commercial vehicle telematics finds applications in vehicle tracking, location based services, fleet management and more.

Telematics, in the broad sense, refers to sending and receiving information via a telecommunications device. This machine-to-machine (M2M) technology is widely used in vehicles today, and so telematics today refers to the application of the technology in vehicles. Telematics in vehicles provides drivers with real-time information regarding automobile accidents or theft detection, route guidance, traffic or daily living information, games and e-mail services by applying mobile telecommunications and global positioning system (GPS) technology. Commercial vehicle telematics (CVT) is emerging as one of the fastest growing areas in the telecommunications sector today.

A vehicle telematics system consists of a GPS receiver and an SSM/GPRS modem installed in each vehicle. The technology is primarily used to track vehicles. Experts say that CVT, though in its infancy in the Asia-Pacific region, would give rise to a number of functions ranging from "vehicle and passenger safety to the ultimate luxury of sinful comfort and convenience features."

BizAcumen, in its recent report on CVT, says that telematics technology has the potential to add the crucial functionality imperative for various emerging automotive system capabilities.

Applications

Telematics applications can be broadly classified into four areas: Navigation Service, Safety and Security, Information and m-Commerce, and Wireless Internet Services.

Navigation Service: This is one of the most popular applications of telematics. The technology helps drivers and vehicle owners get real-time traffic information and map directions. The GPS-enabled vehicle telematics provides round-the-clock information about road and traffic conditions, enabling them to make wise decisions while on the road.

Vehicle Diagnosis and Control: Vehicle diagnosis and control service allows users to check gear performance, engine, brakes and get fuel-related information. It enables them to control various parts and components including the doors, trunk, headlights and taillights.

Safety and Security: Telematics can be used in emergency rescue applications. Vehicles fitted with a remote

AP-11 copy.indd 34 3/25/10 8:30:24 AM

control for automobile diagnosis are less prone to accidents due to mechanical failure. An automatic crash sensor is another important application of telematics for ensuring safety while driving. The safety and security service also enables vehicle monitoring and tracking in case of theft.

Information and m-Commerce: Telematics enables Location Based Service (LBS) on vehicles to provide information about places of interest to people. This may include details of restaurants, movie theaters, shops and more. LBS is emerging as one of the most lucrative marketing opportunities for such businesses.

In the form of m-Commerce, telematics can be beneficial to both businesses and customers alike. The technology can be used to provide hotel/air/train reservation and logistics services.

Another important application of Telematics is fleet management. This is important when there is large-scale movement of goods from one place to another. Telematics helps manufacturers save money and time while transporting goods from one place to another. The technology also helps on-site service personnel communicate with each other and manage their fleet effectively. Instant communication among personnel deployed at different locations helps the company save significant time and travel costs associated with such services.

Entertainment: Telematics empowers vehicle owners with the ability to play music or video in the car without having to download it from mobile handsets, with the help of phone-automobile synchronization technologies via wireless networks such as WCDMA, WLAN and Bluetooth.

Commercial Telematics in South Korea

Commercial telematics was introduced to South Korea in 2003. Since then, the industry has matured enough to attract investors and customers. User expectations and technologies have been clearly defined over the past few years. A key factor that drives this growth is the popularity of GPS-enabled phones. They have helped small and medium enterprises maximize fleet efficiencies and minimize operating costs. The availability of LBS via mobile phones has enabled many service providers and hardware manufacturers to extend LBS applications to commercial fleets.

In 2003, SK Telecom, a leading service provider in the country, entered into the telematics market in Korea with the introduction of NATE Drive. Based on the advantages of wireless Internet services and operational know-how, NATE Drive is the world's first handset-based telematics service, the company said.

South Korea has also initiated a major telematics project – Jeju telematics model city construction project – with an aim to energize the telematics industry in the country and create synergy effects between associated industries. A consortium of companies, led by SK Telecom, was designated as the operator for this telematics project initiated by the Ministry of Information and Communications.

The Korean government, ambitious to make the country the market leader in IT, has announced telematics as one of the nine new engines of economic growth. This move gives a strong positive signal to investors and global players interested in the telematics business in Korea. With maturing business models and a highly developed value chain, Korea is on track to becoming a major telematics player by the end of the decade. Domestic wireless operators and automakers are keen to rake in the profits from this highly prospective market opportunity.

Korea Telematics Business Association (KOTBA) is a non-profit organization established to encourage telematics in Korea. Established in 2003, KOTBA aims to standardize telematics technologies and services. KOTBA has about 60 members including automakers, telecommunication companies, terminal manufacturers, content providers and other telematics-related companies, research centers and universities active in the telematics industry.

According to Research and Markets, the low penetration of telematics in Korea, one of the top six passenger car manufacturing countries in the world, has created greater interest among key players in the region. The market expects explosive growth over the coming few years, the agency thinks. The telematics market in Korea will be spurred by its robust infrastructure, especially its world-class wireless communication technology and an extremely efficient and high-speed Internet.

Korea boasts one of the highest broadband and 3G penetration rates in the world. As a leader in communications, Korea also surpasses several superior countries in convergence of technologies, voice recognition systems and remote care diagnostics. Service providers could also take advantage of these advanced technologies to design and offer unique services for their customers.

ABI Research expects that commercial telematics in Korea will show very strong growth, accounting for a high CAGR of between 38 percent to 42 percent in subscribers, hardware shipments, and market values.

Telematics Industry in China

Following in the footsteps of the developed countries, China stepped in to telematics services in 2009 with the introduction of GM OnStar and Toyota G-Book. The industry is hopeful about the entry of the two mainstream auto brands in the telematics market in China. However, the market is likely to witness tough competition in the coming years as more players enter. To succeed in this market, the automakers have to seek local partners, apply new rules to the game and try innovative business models. Telematics will get a boost in the form of government support as it complies with the Chinese government policy that mandates GPS devices on every public and special-purpose vehicle.

However, there are a number of challenges facing telematics in China. The country, with its varying economic and cultural conditions, poses a great challenge to international players entering the market. They have yet to identify the potential service areas that would appeal to the mass market in China. Wireless carriers can play a

CONTINUED ON PAGE 40

AP-11 copy.indd 35 3/25/10 8:30:28 AM

GREEN TELECOM
Is it Socially Beneficial?

BY N.K. MATHUR

What is Green Telecom?

All of us would like to stay close to nature, see greenery around us, feel freshness pervading our neighborhood. And how nice it would be to help nature come closer to us. The telecom sector, or the ICT sector as a whole, should naturally play a role since ICT-dependent appliances are very close to us in our households as well as in the workplace. This is where 'green' telecom steps in. It implies that starting from the building to the equipment, machinery and the end product, not forgetting the ancillaries, everything should be as 'green' as is feasible through our present state of knowledge. We can be sure of one more aspect: our capabilities will certainly keep on evolving and improving. It should also be appreciated at the outset that telecommunication and related industries play a vital role in two main streams of our activity – in introducing carbon-reduction technologies and in monitoring global warming. Thus, we see that telecom and the environment are interdependent and can work to assist each other.

On the International Front

The International Telecommunication Union (ITU) has been emphasizing the need for the introduction of eco-friendly elements in all telecom and ICT-related equipment and services. A recent symposium on ICTs and climate change in Quito, Ecuador, in July 2009, recommended that global efforts to combat climate change would facilitate economic and social growth and also that the ICT sector must limit its own carbon footprint. It naturally follows that the increased use of 'green' construction materials, renewable energy coupled with 'green' purchasing policies and methodologies can provide tangible assistance towards achieving the objective of 'green telecom.'

It is therefore necessary to call upon public and private entities at the national as well as international level to include in their activities and projects the analysis and study of the impact that telecommunications and ICTs have on climate change.

Establishing 'Green' Telecom Systems

Going by ITU reports, the ICT sector contributes 2-2.5 percent of the total global warming effects. These figures would be much more important for countries like India and China where the ICT sector is becoming an integral part of the economic development and, moreover, its growth is unprecedented.

In India, as in many other neighboring countries, the telecom networks are expanding in a phenomenal manner. Urban and rural teledensity of 100 percent and 30 percent respectively has been achieved in India with over 500 million subscribers; the government is taking action on several fronts to further increase the teledensity and penetration of broadband. It is expected that India will have 900 million mobile and 40 million broadband subscribers by the year 2012. Similar action is afoot in many other neighboring countries, correspondingly resulting in the exponential growth of telecom networks in the region.

A holistic view shows that development and management of green telecom systems should aim at making the following components green or as green as possible with today's and tomorrow's technologies:

- materials and substances
- operational cycle
- waste disposal
- R&D activities

Materials and Substances

Let us look at building materials. The 'Green buildings' movement has already been going on for the past few years with the objective of some components being designed as 'net zero' structures. The same philosophy is being adopted for telecom components with a special emphasis being placed on achieving low heat dissipation. The trend is towards designing systems that do not need much cooling, air conditioning or heating and can operate at ambient temperatures. Also, heating and cooling systems are being designed to run on eco-friendly energy sources. Lighting has also undergone a sea change, with the arrival of CFL, liquid crystals and LEDs, which consume 1/10 of the energy of conventional systems.

The Energy Front

Let us look at the energy front, which is emerging as

AP-11 copy.indd 36 3/25/10 8:30:29 AM

the most important aspect to tackle. It is obvious that the larger the equipment, the greater the energy requirement. Today, such energy – in excess of 1 kilowatt – is being provided by diesel generators, which leave a large carbon footprint. Moreover, the health hazards are considerable and these pervade the human as well as animal kingdom. With the awareness of our environment gradually taking a firm hold in our thinking, it follows that we must devise telecommunication systems in sub-sets of a smaller size – spatially separated – so that it is able to serve a large area or a large population, and yet requires less energy than, say, 1 kilowatt at each location.

The question of eco-friendly energy sources has been under intense consideration by telecom professionals all over the world. Apart from the development of energy-efficient technology, power has been a major problem for rural telecommunications in India. Recently, the Department of Telecommunications has decided to offer financial support from the Universal Services Obligation Fund to telecom players using renewable sources of energy to power their base stations in rural areas. Under certain conditions, it will give Rs 5 million per installation for mobile towers running on solar or wind or some other type of renewable energy. Notwithstanding the usual governmental approach, this move indicates the government's thrust towards providing affordable telecom facilities in rural India. Similar efforts are being made at various fronts in neighboring Asia-Pacific countries.

The following eight approaches have been considered in the past:

1. Solar energy
2. Wind energy
3. Tidal / Lunar energy
4. Scattered electromagnetic energy (Nokia is reported to have utilized this for certain handsets)
5. Pico Hydel
6. Biomass
7. Fuel cell
8. Other new technologies that might be developed in future

Another area of concern is the use of the diesel engine-alternator sets for running mobile systems particularly in rural areas where commercial power is available only for a part of the day. This naturally causes an enormous degradation of the environment. According to one estimate, India would require more than 3,00,000 towers by the end of 2010, out of which about 80 percent would be installed in rural areas. These will mount antennas and other associated equipment for nearly 750,000 base stations which are estimated to consume about 16 billion liters of diesel a year. The annual carbon emission as a result thereof would be about 40 million tons. In view of the explosive growth of mobile telephony in India, by 2015 these figures are likely to double. Climate change has become a major policy issue globally, because the rate at which greenhouse gas emissions are rising is exceeding the worst-case scenarios of environmental scientists. Therefore, telecom policy should make it incumbent on rural operators to employ clean energy sources.

Waste Disposal

Here it needs to be acknowledged that e-waste is a growing problem. Efforts must be made to dispose of mobile phones, computers, etc., in an environment-friendly manner and to reduce and avoid the use of toxic materials in the production stage. The re-use of ICT equipment also needs to be encouraged. Some manufacturers have started inviting their consumers to deposit discarded pieces at specified locations, which is a healthy trend. And such measures would also enable re-use in the most efficient manner.

R&D Activities

Some private operators in India have developed microcellular systems run by solar power. Recently, the effort of one such company has gained international recognition by receiving "The Wall Street Journal Technology Innovation Award 2009." Such developments are likely taking place in other neighboring countries, too. Governments should support such efforts so that India and the region becomes an exporter of clean technologies and thus contributes to the global efforts of reducing carbon emissions, without affecting economic development. There are reports of energy-efficient engine alternators being developed for rural areas. Lightweight base station arrays have been designed for rural applications.

Some Emerging Action Points

In order to take care of the climate issues and arrive at green solutions for telecom systems, it would thus be necessary to initiate certain actions. First of all, the design of the rural network needs to be engineered in such a way that energy requirements are minimized. And furthermore, the systems themselves should be eco-friendly along the lines indicated earlier. Networks designed for urban applications cannot be retrofitted.

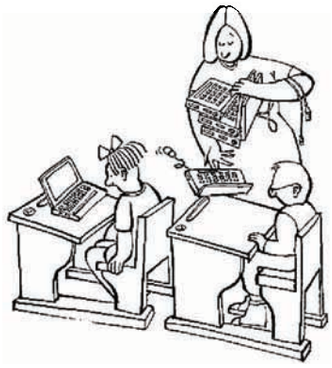
Furthermore, insofar as rural areas are concerned, care should be taken to tailor the networks for the specific needs of such areas. The rural customer has, broadly speaking, two types of requirements. He needs to be in mobile contact all the time and at home he needs to be able to get from his TV set, that is, in audio-visual format, the information that he needs for his business and entertainment for his family where literacy level might be a limiting factor. We have to find eco-friendly solutions to provide him with these facilities without contributing much to the global carbon footprint. The electronics installed in rural areas must not require air conditioning, and suitable design features to improve energy efficiency should be introduced.

There is a need for stringent norms for energy efficiency, emissions and carbon footprint, not only for manufacturers, but also for operators. The type of approach mentioned in this article requires actions which are quite achievable and can soon result in green telecommunications, with the least resource wastage and minimum environmental impact. Such would be the concept of a telecom professional who has an eco friendly temperament.

N.K. Mathur is a former adviser for operations to the Telecom Commission of India.

AP-11 copy.indd 37 3/25/10 8:30:30 AM

Technology Trends in the Education Sector



BY ARPAN BANERJEE

Today's students are growing up in a digital world that utilizes a variety of hi-tech tools, from computers and video games to increasingly sophisticated mobile devices. Schools and universities are following suit, integrating a range of technologies both in and outside the classroom. Let us look at some exciting trends in today's education sector.

Globalization

The demand for higher education globally has increased and will continue to grow. New campuses are being built and existing campuses are expanding. Universities are competing internationally for resources, faculty, the best students and education funding.

Overseas expansion creates opportunities for students and faculty in terms of exchange programs and expanded campus environments. China, India and the Middle East have quickly become key areas for widespread campus growth. The learning model varies by country and institution, ranging from replicating the home campus, to building local capacity, to participating in faculty exchanges.

These global learning environments give students an opportunity to expand their portfolios to include experience that is valued in today's workforce. Universities, in turn, use their foreign campuses to attract top research talent and build international relationships, establishing a global presence and helping develop local capacity.

Information Literacy

Enhancing technical literacy and creating a culture that encourages faculty to use computers, smart devices and other innovative tools in their curricula is becoming a top priority for colleges. From the perspective of students, while they are device-savvy, they may not necessarily be information savvy. In spite of growing up with technology, many students have not learned how to use technology for academic purposes. Universities are addressing this through a variety of methods and are creating a technology culture through a variety of programs such as support desks and student employment programs. The bottom-line is to ensure that students are viable candidates and are competitive in the global workplace.

Internet branding today is a viable way to market academic programs to prospective students while enhancing the school's brand. Universities are also establishing online parties and networking websites for newly-admitted freshmen, allowing them to interact virtually with campus services and the campus community before they start school. The presence of schools in virtual online communities such as Second Life helps enhance the brand. YouTube's education channels and iTunes U are effective not only for teaching and learning, but also for marketing a university. To attract students, universities develop student-blogger programs, where current students blog about their life at the university. Some universities also have "fan pages" on Facebook to enable communications with incoming freshmen.

AP-11 copy.indd 38 3/25/10 8:30:32 AM

Mobility

Students depend heavily on their mobile phones and PDAs these days. With the proliferation of mobile phones on campus, colleges everywhere are compelled to capitalize on feature-rich phones that are capable of much more than just voice calls. Adoption of the BlackBerry, iPhone and other smart devices that have Internet access allows students and faculty to perform a wide range of assignments. Tasks like administration, sharing class notes, downloading lectures, instant messaging, etc., are possible anywhere cell phone service is available.

Mobile phones are also being used to access computer files from remote locations. With services like Soonr, students who have forgotten to bring an assignment to class can use their cell phone to access the completed work on their home computer and show it to the professor. Mobile applications such as Twitter and CitySense help students schedule meetings or study dates remotely. Mobile learning that uses PDAs and smartphones to deliver courseware, field data, short tutorials and classroom polls is also on the rise.

New Technology Adoption – A Trend in Itself

Some of the biggest trends of today include the emergence of Web 2.0 and social networking phenomena such as blogs and wikis, as well as new online video repository and delivery websites such as YouTube, iTunes U and Big Think. The emergence of smartphones such as the iPhone and other intelligent devices has enhanced mobile learning (referred to as m-learning). These technologies create new channels for content delivery, online video expansion and podcasting. Also, the adoption of virtual reality websites such as Second Life has provided higher-education institutions with new venues for class gatherings and learning.

Some popular Web 2.0 tools are:

Blogs: Short for 'Web log,' a blog is an online journal, which has a writer/creator and readers who serve as contributors and commentators that help shape the dialogue. A typical blog combines text, images and links to other blogs, web pages and other media related to its topic.

Wikis: The best way to describe a wiki is by giving the classic example of Wikipedia, which is an online encyclopedia that is generated, validated and maintained by users.

Podcasts: Series of digital media files, which can be both audio and/or video.

Mashups: Similar to a portal, a mashup is a newer, loosely-defined Web 2.0 technique for content aggregation. Examples of popular consumer mashups are Google maps and Diggs.

Social networking and communities: Popular social networks like Facebook, orkut, LinkedIn, used to build an online community of users who share similar interests and/or activities.

A combination of these tools is transforming the traditional learning environment into something more social and personalized. While traditional Learning Management Systems (LMS) like Blackboard or Web CT are course-centered and driven by faculty, the new approach is to create a 'learner-centric' system.

Universities continue to examine ways in which they can integrate these tools to further enhance the campus and learning experience and improve productivity through flexible learning environments. Many universities view technology as a key asset that helps them create an intellectually vibrant and relevant campus to attract the best students and faculty.

Learning and collaboration

The education process has evolved over a period of time to collaborative learning. Web 2.0 and social networking tools such as blogs and wikis and online social gathering websites such as Flickr are enhancing and facilitating collaborative learning and are being used widely on many campuses. The delivery of content has evolved dramatically, as many professors opt to post all class material including complete audio and/or video recordings of lectures on sites like iTunes U and YouTube. Open source course-management systems such as Moodle and similar systems on Facebook are some applications to support more content and student collaboration.

Virtual meeting place tools like Webex, Dimdim and Gotomeeting are efficient web-based collaboration solutions that help improve productivity and decrease the need for face-to-face communication and travel. These tools simulate the visual communications that occur between students and teachers in the traditional classroom setting.

Education and entertainment

Higher-education content and entertainment (edutainment) are sharing a common footprint these days. Teachers are combining the two using various videos that contain both educational and entertainment value in podcasts and posting course content on education channels. Television broadcasting companies such as the BBC, MTV, NBC, and ABC are quickly developing methods to integrate broadcast media with higher education. This trend supports the marked increase in the use of multimedia devices on college campuses where content is accessible not only through computers, but also through TVs and smartphones.

In conclusion, technology will play an increasing role in higher education this century. The learning technology of today is being shaped with the help of tools to create a social, highly collaborative and personalized environment. Institutions will adopt innovative solutions that will change the way students learn, communicate, produce, collaborate and study both on and off campus. Creating innovative services from cur¬rent and future technologies requires a powerful, reliable, expandable and secure IT infrastructure that has adequate bandwidth, quality of service and storage. Many colleges and universities have already developed plans to ensure success in meeting their current and future needs. Educators, management and administrators who are proactive in embracing the trends with the help of the right technology partner are in a position to create significant competitive advantages.

AP-11 copy.indd 39 3/25/10 8:30:33 AM

Telematics Beyond Navigation

FROM PAGE 35

leading role in the Chinese telematics market. In the coming years, the industry will be active with partnerships and investments.

Recently, Korean telecommunications provider SK Telecom introduced the Mobile in Vehicle (MIV) service in Shanghai. The technology enables the remote control of vehicles via mobile phones. Compared to traditional telematics services, MIV offers a lot of advantages. With MIV, telematics offers mobile telecommunications technology, platform and content, representing a new concept of convergence services where customers can use their mobile phones to diagnose and control their cars, and use various multimedia services. The service is compatible with both smart phones and non-smart phones.

Sung-Chul Hong, executive vice president and head of next Internet business division of SK Telecom said, "The telematics service provided in the form of a package – offering mobile telecommunications technology, platform and contents – is promising. It can be used via both smart phones and non-smart phones, thereby making it highly compatible with all types and brands of automobiles worldwide."

SK Telecom expects the promising convergence service market worldwide, which combines information and communications technology with the automobile industry, to reach US$15.4 billion by 2010. In 2007, SK Telecom acquired a 65 percent stake in Shenzhen E-eye High Tech, a GPS service company in China for $15.21 million. The company initially plans to implement the MIV-based security service on three or four kinds of automobile made by Toyota and Honda and then expand MIV to other brands as well. More MIV services including remote vehicle diagnosis, short-cut introduction based on real-time traffic information, and playing music and video on mobile phones via the vehicle A/V system, will be introduced successively, company officials said.

Telematics in Japan

In Japan, the government has initiated an Intelligent Transport System (ITS) to solve transportation problems such as traffic accidents and congestion through the use of vehicle telematics technology. The National Police Agency, the Ministry of International Trade & Industry, the Ministry of Transport, the Ministry of Posts & Telecommunications and the Ministry of Construction are working together to achieve the goals of ITS.

One of the key focus areas of ITS is Vehicle Information and Communication Systems (VICS). Under this, the one that immediately preceded actual deployment is Electronic Toll Collection (ETC) technology. ETC enables vehicles to pass through tollgates without stopping to pay the toll and without getting stuck in the congestion at the tollgate. Tolls are paid through credit cards. The service is now available at almost all of the tollgates across Japan.

ITS is beneficial to the nation in many ways. By providing up-to-the-minute information and alerting drivers about possible hazards, it helps reduce traffic and accidents on the road. Additionally, it enables drivers to drive efficiently, eliminating unnecessary acceleration and deceleration. All of these features will result in a reduction in fuel consumption and carbon emissions, and ultimately significant cost savings. Japan is aggressively preparing to complete the entire basic infrastructure by 2010.

ABI Research had forecast that in 2011 the aggregate Japanese commercial telematics market will reach $267 million, up from a 2006 level of just over $120 million, amounting to a CAGR of 17 percent.

Telematics Challenges

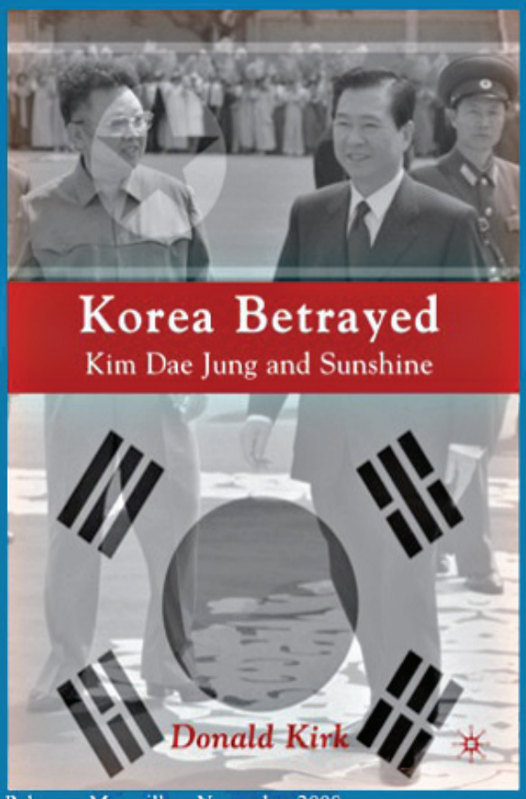
Currently in the nascent form, the telematics industry faces a number of challenges, the most crucial among them being the integration of various data such as road and traffic information, location-based businesses, and other information of particular interest to users. A standard infrastructure is essential to provide the information via a single and efficient source. The industry urgently needs private and public sector investments to drive down the costs of data accumulation and management. They should organize well to garner support from the government to set up adequate telematics infrastructure including live traffic information, antenna and camera systems. Telematics companies also have the responsibility to educate end-users about the new technology and the added features that provide them with safety, security and emergency assistance. They need to train and recruit sales personnel to inform new vehicle buyers on the benefits of telematics. Awareness created through these means would drastically affect buyers' decisions.

Looking Forward

Going forward, telematics will spread to more areas like fleet management, emergency services and public utilities. With intense competition in the logistics environment, freight carriers in Japan, Korea and China are facing huge challenges in relation to vehicle allocation and operational management of trucks. Fleet management systems allow carriers to achieve more efficient vehicle allocation and lower distribution costs. Commercial telematics may also develop by including emergency medical services (EMS), public transportation, car rentals and municipal fleets.

Emerging telecommunications technologies such as WiMAX and LTE will further accelerate the growth of telematics in the Asia-Pacific region.

AP-11 copy.indd 40 3/25/10 8:30:34 AM



Palgrave Macmillan, November 2009
ISBN: 978-0-230-62048-3, ISBN10: 0-230-62048-5,
Harcover List Price: $80.00 Discounted Price: $64.00

Korea Betrayed

Kim Dae Jung and Sunshine

Praise:

"The late Kim Dae Jung--the remarkable political dissident who rose to be President of South Korea and to win the Nobel Prize for Peace--is revered internationally, but his reputation in his native South Korea is much more controversial and contested. In this critical biography, Donald Kirk--a journalistic eminence who has been covering Korea for more than 30 years--helps us understand why this could be so. In his fascinating book, Kirk not only traces Kim Dae Jung's great political rise, but also details the moral and financial corruption that came to engulf, and permanently tarnish, the 'DJ' Presidency. *Korea Betrayed* will be a welcome addition to the bookshelf of every student of modern Korea. Kirk's account of the failure of DJ's 'Sunshine Policy' toward North Korea, furthermore, should be 'must reading' for all American policymakers before they prepare to deal with Pyongyang."--Nicholas Eberstadt, Henry Wendt Chair in Political Economy, The American Enterprise Institute.

About the book:

For the first time, using original sources and his own reporting going back to 1972 when he met Kim Dae Jung at his home in Seoul, Donald Kirk explores the great untold story of modern Korean history. This book recounts the rise of Kim Dae Jung from an oppressed region of Korea, beginning with his schooldays, his activities in the Korean War and his entry into politics. The book addresses his populist politics, his ascent to the national stage and his encounters first with the dictators who tried to take his life and then had him tried and sentenced to death for the Kwangju revolt. The book outlines DJ's life in exile in the United States, his great return to Korea and his entry into presidential politics climaxed by his election in 1997 at the height of economic crisis. Focusing on DJ's Sunshine policy, his summit with North Korea's Kim Jong Il and his drive for the Nobel, the book tells the story of payments that brought about the summit and the prize along with the corruption that ensnared his sons and top aides.

About the Author:

Donald Kirk, journalist and author, has covered Korea for American newspapers and magazines beginning with assignments there as Far East correspondent for the *Chicago Tribune* in the early 1970s. Since then he's reported from Korea for The *Observer* of London and *USA Today* and served as Seoul correspondent for the *International Herald Tribune*, the *Christian Science Monitor*, CBS Radio and the *Asia Times*. He is the author of two books on Korean economic issues, *Korean Dynasty: Hyundai and Chung Ju Yung* and *Korean Crisis: Unraveling of the Miracle in the IMF Era* as well as books on his years as a war correspondent in Vietnam and a Fulbright research scholar in the Philippines. He currently travels to Korea and elsewhere from his home base in Washington, D.C.

Order discounted copy at: www.palgrave-usa.com 20% Discount code: P36235

THE SCIENCE OF TOWN HALLS AND EMPLOYEE ALIGNMENT

BY ANIISU K. VERGHESE

"Town Halls" or "All Hands" sessions, if done consistently, are powerful internal communication platforms for organizations to connect with employees, share plans, engage in conversations and gauge feedback. Some organizations invest a lot of time and attention into getting these interactions right and involve advertising and event management agencies to package the sessions as 'events,' thereby creating a 'wow' effect that will help audiences retain the message.

My personal take is that such sessions need to be managed and run in-house since the internal communicator has a lot more context, better relationships and insight into messages and key internal information. There are broadly three levels of content that employees are interested in knowing – company, office and team. Therefore, the content and approach needs to address the company's plans and strategy, the office updates and team events such as recognitions and performance updates.

Knowing how to conduct such sessions is a science, and I can safely say that I am still learning the ropes. However, based on my experiences with conducting such sessions at various Indian and multinational organizations, what follows are some best practices that I am able to distill and share.

Recently, I was closely involved in championing a series of such sessions that aimed at getting powerful content fused with even more compelling presentations.

It is clear that any such exercise needs leadership maturity and the commitment of time and effort in order to make a substantial impact. It takes a lot more energy and drive to inspire people to focus on the brand, the organizational goals and how each one can partner to make it successful.

These sessions are coordinated to time with public-facing and client-specific announcements. Senior leaders from across locations deliver content real-time, en-

AP-11 copy.indd 42 3/25/10 8:30:35 AM

suring everyone is on board with how to go forward.

I managed and witnessed numerous such sessions in my previous workplaces, but nothing compares to the passion and drive seen when people rally together, speak the same language and align to the same vision.

Here are my top recommendations while planning and executing these sessions. One caveat – town halls or leadership-employee interactions are not a one-off exercise and requires the commitment of the leadership to ensure continuity and consistency.

First the basics, then the jazz: Always get the 'who, what, when, where and how' of communication clarified up front. It is safer to set up a pre-event call and run a high level plan by senior leaders on the process of rollout. One of the common mistakes I have observed is that internal communication teams invest too much time in 'creating' or 'hyping' the session as an event rather than focusing on the content and delivery. Finally, what matters is content and how employees perceive it. A town hall or an all-hands is not "show-time," but an opportunity for dialogue. Remember, your employees are sparing their valuable time to come and listen to you – make it count.

What you say is what you mean: Very often (and unfortunately), I notice the attention paid to developing key messages is probably only about 5 percent of the overall effort of running town halls. To me, it should ideally take over 75 percent of your time to get the message right. Rather than 'recall' your messages, it makes more sense to get them right the first time. In key messages development, it important to understand cultural nuances so as to suit all geographies, locations and languages. In this specific rollout, effort taken to include India-specific content and case studies helped employees relate better. Work out the 'what's in it for me' perspective in every communication.

Plan your town hall strategy: Planning is the most critical element of successful town halls. From the timing (avoiding sessions around holidays or close to long weekends) to the frequency (having one large session or multiple sessions depending on the nature of the content), it is essential to think through the process of running a town hall. Just like the way appropriate channels are critical to reaching your audiences, similarly, it helps to place the right presenter with the relevant teams you are targeting. From my experience, I have found that employees are able to relate to speakers who directly or indirectly affect their careers, growth and performance. Also, people are able to speak more freely in smaller, close-knit groups they are familiar with.

Get feedback to get better at town halls: I am a firm believer in getting feedback on the content, presenters and format of the sessions.

Aligning your presenters: Once your content package is ready, it is important to select speakers who can deliver the messages and rally employees. While a single round of sessions may only be the 'start' of any conversation, understanding the personalities of each presenter is useful. Usually, a preparation call or meeting is driven by the internal communication team, briefing the presenter or presenters on possible questions that employees may ask along with suitable talking points.

Packing a punch with your content: Create and make presentation material and videos available for presenters. They need all the ammunition possible to make an impact. From my experience, interspersing video content with slides adds the much-needed stimulus and also allows for informed conversations.

Timing your communication: Employees need sufficient lead-time to plan their work and be prepared with questions to ask. Therefore, ensure the calendar invites are sent at least a week prior to the sessions. Be sure to tell employees that the town hall schedules and venues may change while the team continues mapping the speakers' and venue's availability. If there is a possibility of releasing marketing-facing messages, ensure that you share them first with your employees before they hit the press.

Murphy's Law and other factors: Conducting town halls involves people, technology and communication. While we can control most of these elements, factor in situations where your tools and resources may not function as planned. Have suitable back-ups for presenters, equipment and venues. Invest time to test and verify that the systems work before you engage your audiences. Most often, compatibility issues with projectors, microphones, sound systems and laptops can cause a lot of hiccups unless you test the set-up. On D-Day, have a process for sending out the announcements and reminders, tracking session completion, conducting an exit poll and capturing questions that employees ask.

Get feedback to get better at town halls: I am a firm believer in getting feedback on the content, presenters and format of the sessions. Also, get feedback almost instantaneously so that your audience can recollect their thoughts easily. Poll the presenters to understand what worked well and what needed fixing. This feedback enables internal communications to revisit their plans, restructure content and include positive changes for improved communication.

Share your plans with your stakeholders: Depending on the content shared during your sessions, there is a possibility that other stakeholders including new hires, partners, clients, agencies and alumni may need to be informed. Again, to be consistent, the internal communicator needs to work with relevant stakeholders to have suitable content for presentations, websites, portals and induction programs.

Aniisu K. Verghese has over 11 years of experience in the evolving internal communication arena, online media and corporate communications. He currently works as an internal communication expert for a global customer experience company, where he oversees employee communication for India and the EU.

AP-11 copy.indd 43 3/25/10 8:30:36 AM

GREEN

CARBON ARBITRATION IN KOREA

BY AMANDA MIN CHUNG HAN

As carbon becomes synonymous with cash, more and more carbon emissions related projects are launched and announced. As you might expect, disputes over carbon emissions projects are also growing.

Recently, there was a very significant case in Korea. It was the first arbitration case about carbon emissions trade and caught the attention of lawyers and business people alike. As of February 2010, there were no cases in litigation in Korea.

The incident traces back to 2004 when Daegu City, Korea District Heating Corporation and Taegu Energy & Environment Co. decided to work together to reuse methane gas from one of the largest landfills in Korea, in Bangcheon-ri, a small town in Daegu City.

Daegu had been troubled by the smells coming from the Bangcheon-ri landfill. Residents continuously complained about the stink. The city badly needed to make a decision. The methane gas was the key – if the gas was gone, the smell would also be gone. The city searched for a private company that would invest money to build and operate a landfill gas-to-energy plant. The subsidiary of Daesung Group, Taegu Energy & Environment, signed the contract then constructed the plant by September 2006 for a 23 billion won (US$20 million) investment. Daegu City and Taegu Energy & Environment also signed a contract on the supply of landfill methane gas with Korea District Heating Corporation. Since the Bangcheon-ri landfill plant began commercial operations in October 2006, the complaints from residents have completely ended.

The basic mechanism of the project is very simple. The plant captures and refines the methane gas from the landfill. Daegu gets an annual payment for the use of the methane from Taegu Energy & Environment. Then, Taegu Energy & Environment sells the refined gas to Korea District Heating Corporation, which uses the gas as fuel.

This project was successful both economically and environmentally. Capturing and recycling methane gas has multiple benefits. As well as yielding energy and money, it also prevents a malodorous greenhouse gas from being released into the air.

In 2008, Taegu Energy & Environment sold 49 million cubic meters of refined methane gas to Korea District Heating Corporation, as well as generated 28 thousands kilowatts of electricity for a total of 6.3 billion won in annual sales, up from 5.9 billion won in 2007. Daegu City also got paid 512 million won from Taegu Energy & Environment for the use of the methane. Korea District Heating Corporation supplied heating to 10,000 households through methane gas instead of oil. That caused the effect of saving 29,000 tons of fossil fuel.

However, the honeymoon period was over when the plant was registered as a Clean Development Mechanism (CDM) project with the United Nations Framework Convention on Climate Change (UNFCCC) in August 2007. It was the first case in which a Korean local government registered a CDM project. The UNFCCC issued Certified Emission Reductions (CERs) to Daegu City, which assumed about 11.7 billion Korean won net profit for 21 years when it applies the price of the CERs at 11 euro

AP-11 copy.indd 44 3/25/10 8:31:22 AM

per ton and an exchange rate 1,700 won per 1 euro. The UNFCCC issued 2.2 million tons of CERs and is likely to issue an additional 2.8 million tons of CERs to Daegu City.

Ironically, this big fortune led to disputes among the three parties over the distribution proportion of the CERs. Each party wanted to have a bigger portion of the annual CERs, while Daegu City insisted the majority of the CERs were its own. However, Daegu, which controls the project, confirmed only 1.15 percent for Korea District Heating Corporation and 0.76 percent for Taegu Energy & Environment for the cost of equipment and labor.

Korea district heating corporation insisted on receiving 50 percent of the amount of CERs' sales while Taegu Energy & Environment was asking for 30 percent of the sales. There was no precedent to use as a guideline to judge the proportion. They tried to figure out what would be the best solution for all parties with less cost and time. They agreed to file for arbitration rather than litigation, which is pricey and can take up to a few years depending on the case.

Arbitration is an alternative way of producing impartial and fair resolutions to business disputes. But unlike litigation, parties select their own place of arbitration, their own adjudicators and even their own arbitration procedure based on their specific needs as long as each party agrees to the procedure. Arbitration is most commonly used for the resolution of commercial disputes, particularly in the context of international commercial transactions.

Each party, Korea District Heating Corporation, Taegu Energy & Environment and Daegu City appointed Kim & Chang, Yulchon and Min & Partners, respectively, as legal representatives. There were four hearings and the arbitration proceedings lasted only four months until February 2010. The Korean Commercial Arbitration Board (KCAB) concluded that Korea District Heating Corporation would receive 10.33 percent of the CERs, Taegu Energy & Environment would get 1.16 percent, and Daegu City 88.51 percent. KCAB appreciated an additional 5 percent as an invisible contribution to Korea District Heating Corporation because it constructed the methane gas boiler and hot water tanks as well as the methane gas recycling plant. Taegu Energy was recognized for its additional investment into the equipment for acquiring the CERs.

Even though the three parties were not fully satisfied with the result, they still agreed to accept the decision. Mr. Seo Jung-kil, an official at the Environment and Greenery Bureau of Daegu City said, "It was the first case over carbon emissions disputes. There were no precedents to consider as a guideline." He added, "Since it was a joint venture, we wanted to find a reasonable solution that could satisfy all of us. That is why we opted for arbitration."

The public relations spokesperson for Taegu Energy & Environment said, "As the leader of the landfill gas-to-energy business, we hope to contribute to utilize landfill gas economically and efficiently. Also, we do our best to reduce environmental pollution and to manage and operate an environmentally friendly landfill."

According to the arbitration decision, Korea District Heating Corporation took 10.33 percent of the annual 400,000 ton of CERs, or about 41,000 tons annually. The corporation expects an annual 550 million won in additional profit, or a total of 11.7 billion won for the 21 years of the project. It also plans to invest the profit into greenhouse gas reduction and renewable energy projects.

Mr. Roh Tae-woo, public relations officer of Korea District Heating Corporation said, "Besides this project, currently we plan to apply to register two more projects as CDM projects. One project is using nematode-infected pine trees as a fuel for a cogeneration plant, which aims to reduce 25,000 tons of carbon dioxide per year. Another one is an LNG thermal power generation project in Hwaseong City. The corporation will do our best to reduce the greenhouse gases we emit as well as to live up to the Korean government's low-carbon, green growth policy."

Mr. Ahn Gun-hyung, an officer of the KCAB, explained, "Following the first case over carbon emissions, other parties have recently sought arbitration. I think disputes between parties over carbon issues will increase as carbon related projects grow."

Considering the new trend, the Korean Carbon Law Society (KCLS) was established on Feb. 25, 2010. It was an approach designed to meet the needs for new regulation to cover carbon emissions-related issues. Professor Kim Sung-su of Yonsei University's school of law was appointed the first chairman of the KCLS. Prof. Kim said at the inaugural meeting, "The conventional laws could not cover the issues of climate change, greenhouse gases and carbon emissions. We need to study laws and regulations for environment, natural resources and energy."

A detailed legal approach to the current carbon emissions issues was delivered at the meeting. According to the presentation, different methods are used to settle disputes over carbon emissions trading globally. The Emission Reduction Purchase Agreement (ERPA) of the World Bank, widely used as a model contract for carbon emissions trading, states that disputes should be settled following the rules of English law and UNCITRAL (United Nations Commission on International Trade Law) arbitration rules. If two parties fail to agree to a venue of arbitration, the place should be the United Kingdom under ERPA.

But the CDM ERPA of the International Emissions Trading Association (IETA) doesn't specify a governing law, so it is understood the disputing parties can choose the law they wish. It also states the venue of arbitration should be at Permanent Court Arbitration.

The KCAB's Ahn explained that there are no specific laws or regulations that govern carbon emissions or carbon trading disputes as of yet. He added that as international carbon trade and commerce increases among the nations of the world, it is an inevitable fact that disputes will rise as well. As these transactions grow more complex, it becomes increasingly important to resolve disputes and conflicts as quickly, efficiently and formatively as possible.

"However, litigation can be costly, time-consuming and lead to a permanent breakdown in business relationships. I strongly believe that arbitration can be the best alternative to litigation over carbon trading related issues. Arbitration is the most commonly used form of dispute resolution in business transactions as well," Ahn said.

AP-11 copy.indd 45 3/25/10 8:31:45 AM

INTERVIEW

RARA JEON

The following is an interview between Asia-Pacific Business and Technology Report and Rara Jeon, CEO of Barnet & Company.

Question: Can you please tell us know a little bit about your company, such as a brief history, for the benefit of our readers?

Answer: Barnet & Company, Exhibition & Convention, was founded in 2005, and provides export marketing, consulting, trade services, and education services as a knowledge services specialist company. In other words, we provide overseas network services for small and medium-sized companies so that they can go into overseas markets. We help them meet overseas buyers by providing planning and consulting, and offer information about various specialized international exhibitions. We help companies with trade support services, bridging domestic and foreign businesses for international trade.

In addition, we provide employment-related education and job retraining for workers by offering various training programs and certificate programs.

For example, compared to a manufacturer that usually needs 5-8 employees to make one million won in sales annually, my company, a knowledge service provider, needs to hire 20-30 employees. Barnet & Company can offer more employment opportunities to people who want to have a job. Now, the Korean government is looking at diverse ways to create more jobs because the unemployment rate is a serious issue in Korea. That is why I might say my company is significantly contributing to society as a knowledge service provider.

Q: What is your business philosophy? Who are your main business role models?

A: I often hear some business owners say that they want to do "a business that can make some money" when someone asks what kind of business they want to do. It is a joke, but it could be an honest answer for any businessperson. I also have to worry about the company's operating costs and many things. However, I always try to keep in mind the fact that I will run a business that not only can create profits, but also contribute to and serve society.

I see some CEOs run their business with a philosophy that I want to follow. One would be Sung-joo Kim, the Chairwoman and CEO of Sungjoo Group and MCM Holdings AG. She is known for her active involvement in non-profit charities and cultural organizations for supporting humanitarian causes. The other would be Costco's CEO James D. Sinegal. Costco's stock keeps going up and revenues of the company continue to grow. However, CEO James D. Sinegal wears a plain nametag, answers his own phone and has an office at the company headquarters without walls. The examples of two CEOs show many things about their business philosophy without many words.

Q: What are the core areas of business of your company? What important areas are you planning to add in the future?

A: Our company's core technology is how to train and create brains, a workforce, for the near future. The brains will predict upcoming industry, create professional plans for international conventions and help companies engage in international trade.

I would say that IT / BT / NT / ET / ST / GT (green technology) are hot areas in the industry, but soon People Technology (PT) will lead the industry. All aspects of industry such as the design of merchandise and lifestyles are more focused on humans than anything else. Korea, especially poor in natural resources, has to focus on human resources. Barnet & Company created a joint venture with a company from India, a country with powerful brains and technologies.

The Comprehensive Economic Partnership Agreement (CEPA) between Korea and India became effective on January 1, 2010. It will create a strategic trading partner relationship between Korea and India. It will also

AP-11 copy.indd 46 3/25/10 8:31:47 AM

Some scientists who specialize in the future say there will be a time when women will lead the world soon. Women are very detail-oriented. I think it will help to better understand 21st century consumers.

create more business opportunities for Barnet & Company. The first and best way to become a global company is to secure global talents. Barnet & Company opened the door for that and will help other companies do global businesses.

Q: Korea is emerging as a global hub of business. In this changing scenario, what is the future of global marketing and networking?

A: South Korea has more applied technologies than the core technologies. Korea uses the resources, energy and technology from other countries and creates a whole new product that can surprise the world. The concept of a global village has been known for a long time, but there are only a few companies applying it to business and taking advantage of it. If you compare the Apple iPhone and the Samsung smart phone, you will know the difference. The Apple iPhone's success is made not by the people working at Apple, but by application developers from all over the world because the developers create the applications for the iPhone and the applications make the phone successful. Meanwhile, even though Samsung's smart phone is a great piece of technology, it was only created by the employees at Samsung. That makes a huge difference. A company or a country can perform better when it cooperates with other companies or countries. We need to go see and work with the experts of the world. For example, mobile phones can be designed in Israel, get hardware from Taiwan and software from the United States and obtain the applications from the world. Global sourcing will be more important for business in the future.

Q: Please also let us know about your Exhibition & Convention Business area. What are the important conferences and seminars you have organized in the past? What are the important conferences you're planning to organize in the near future?

A: I have been working in the field of conventions and exhibitions for over 10 years. I think I have made the right career choice for myself. I have had many chances to travel around the world and I earned experience and knowledge across multiple industries. Working in conventions and exhibitions is not limited to simply organizing the event, but

AP-11 copy.indd 47 3/25/10 8:31:52 AM

it includes communicating with companies to help them go to foreign markets, overseas exhibitions and trade meetings. Without having the knowledge and information about the world market and business, it is really difficult to work in the convention and exhibition business.

To help small and medium-sized companies expand their overseas operations, Barnett & Company introduces world-renowned international exhibitions to the companies and helps them to participate in the exhibitions. We have partnerships with the convention organizers, so we can better support the companies. In addition, For Korean exporters that want to have business meetings with overseas buyers, we do convention planning and convention operation by creating consultation meeting, corporate visits and company IR.

Barnet & Company offered consultations to many domestic companies and helped them exhibit at the Shanghai IT Road Show, UAE Ubiquitous Conference, Tokyo Biotechnology Industry Trade Meeting and the Magic Fashion Show in Las Vegas. The companies had opportunities to meet with overseas buyers and to make deals.

During the International-India Film Festival scheduled in June as well as the G-20 Summit scheduled for November, we will try to organize some other events that can create a synergy effect. The two events could be great opportunities for the MICE industry to emerge and grow. To organize and hold large-scale summits like the G20 or other global conventions in Korea, the government needs to build national competitiveness and the companies in the convention sector have to steadily develop their capabilities.

Q: Your company has a special relationship with India. What are your plans for the Indian market?

A: A company should be insightful and have a vision. Barnet & Company is aiming for the Indian market with over 1.2 billion people. Barnet & Company will promote the trade in human resources and materials between Korea and India. The Indian International Film Festival scheduled for June will be a great opportunity not only for the film industries of Korea and India, but also for the travel industry and others. We are planning many events and conventions related to the film festival.

Q: Your companies have partnerships with companies from all over the world. Please tell us about your business partnerships in other parts of the world and what kinds of business they are doing.

A: Barnet & Company has had global partnerships with leading international companies including the capital finance group Samper Ventures in the United States, the trading company JS Global in the United States that does exhibition, convention, marketing and trading, and our Arab partner in the Middle East for a JV project in the past.

Q: Korea is a male-dominated society. As a young Korean woman entrepreneur, what are the main problems you have to face in doing business in Korea?

A: I often get similar questions when I am interviewed. I can't say that there is no prejudice or difficulties for a businesswoman in Korea. However, if I had a chance to be born one more time, I would still want to be a businesswoman. If I go to a business meeting or conference, usually there are relatively fewer women than men. When a businesswoman says something, it gets more attention and has more impact on the audience. I think that could be one of my advantages as a businesswoman.

Some scientists who specialize in the future say there will be a time when women will lead the world soon. Women are very detail-oriented. I think it will help to better understand 21st century consumers. The significant part of decision making in daily consumption is done by women. For example, women decide which clothes, car, house and even movie tickets to buy. Women will play a more critical role not only as consumers, but also as producers in society.

Q: What important steps would you like to suggest the Korean Government take to improve the working environment for Korean women entrepreneurs and those working in the corporate sector?

A: I don't want to ask for a special benefit for women entrepreneurs. However, I'd like to see more social facilities that provide services for all married women, so that they can give birth to a child and raise the child in a more comfortable situation.

Q: What is your take on the future of the Korean economy and what are the important issues that the Korean economy is facing today?

A: The low birthrate and the aging population are becoming huge social problems in the near future. Researchers who study the future predict that the population of Korea could be only 500,000 in the year 2300. We will need a young workforce to lead economic activity in the near future. Not only the government, but everyone in Korea should consider the importance of having children. Even though the current government encourages families to have more children by offering maternity subsidies and other benefits when a new baby is born, we need to come up with more practical and useful ways to promote more births. I'd like to emphasize again the importance of raising the birthrate for the future of Korea.

AP-11 copy.indd 48 3/25/10 8:32:06 AM

BARNET & COMPANY
Global Maketing Strategies

www.barnet.co.kr

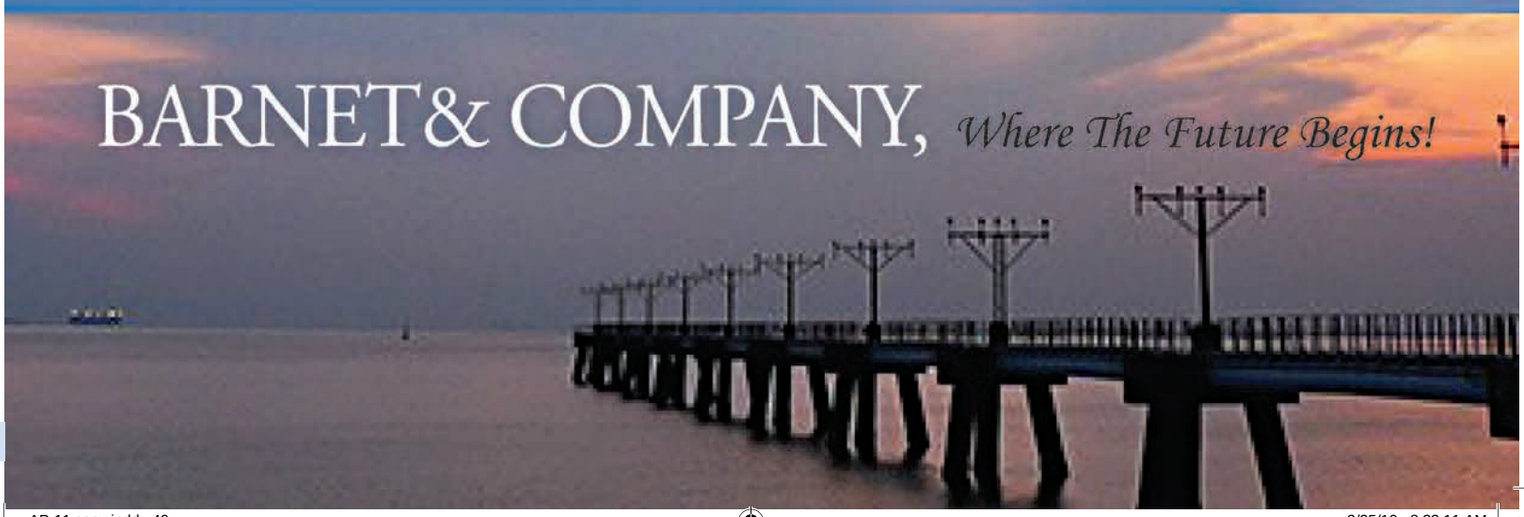
info@barnet.co.kr
Tel 82 2 2051 6051
Fax 82 2 2051 6053

Providing information, knowledge and services to corporate companies, small business and private individuals

Promise
Your efforts and investment to the company will be returned as a valuable assets

Marketing Consulting
Financing
Trade
Events (Exhibition & Convention)

BARNET& COMPANY, *Where The Future Begins!*



Lessons from Korea

THE GOVERNMENT AND BUSINESSES OF INDIA STILL DO NOT SEEM TO WORK TOGETHER TOWARDS A COMMON NATIONAL PURPOSE

BY RAJIV KUMAR

Last month I went back to Seoul after 26 years. The city is transformed and so is the economy.

In 1984, when I visited the export processing zones, Masan and Iri contributed at least 60 percent of South Korea's total exports. POSCO had been established as a public sector company to take on established global giants and, despite having to import 100 percent of its raw materials, out-competed all of them by relying on the latest technology, economies of scale and above all, sheer, hard work and dedication. At the same time, Korea was reaching full employment levels by furiously expanding labor-intensive exports. The question arose in my mind, "If Korea could successfully combine the latest technology with large-scale employment generation, could we do it as well?"

The most striking memory from 26 years ago is of having lunch with the president of the Federation of Korean Industries, the organization of the Korean chaebols, who, like the Japanese zaibatsus, worked closely with their respective governments to create industrial juggernauts. I asked the president, a wise old man, most gracious in his hospitality to a young researcher, what the main lessons were for India from the Korean experience in industrialization. He gave me three nuggets that have remained with me since.

First, he said, countries and/or their firms cannot succeed in a fiercely competitive global economy (this was in 1984) unless industry and government worked closely together to achieve national goals.

Second, developing countries should not be unduly concerned about national pride and national brands as long as they can generate the necessary employment for a young workforce by successfully attracting the necessary technology and foreign direct investment (FDI). But they should not forget that both regaining national pride and building national brands are worthy goals to be achieved over time. The Koreans in their pragmatism had handed over Masan largely to firms from Japan, a country that had colonized Korea not so long before and had broken down the gate of their emperor's palace so that it did not face in an auspicious direction. (Quite rightly, the Koreans are restoring it to its original location ahead of the G-20 Summit in November.)

Third, remember that any country is only as good as its human capital. He cited with approval the efforts of his friend Prof. Choi, the founder of the Korea Advanced Institute of Science and Technology (now KAIST) to bring Korean researchers back from the United States by paying them higher salaries than were being paid at that time either to senior bureaucrats or corporate managers. And as we know, Prof. Choi succeeded brilliantly. Korea has emerged as a leader in several frontline technologies and now competes through product innovation and no longer as a low-cost producer.

Have we learned these simple lessons in India? I am afraid not. The government and industry, though not mutually suspicious anymore, still do not seem to work together with a common national purpose. For example, maximizing employment generation can be a common goal for the government and industry. In this case, special economic zones, which have already generated large-scale employment, will hopefully not remain controversial. The criterion for making land available on a priority basis should then become a minimum number of jobs generated per unit of land. All restrictions, except on strategic grounds, would be removed on FDI when it is seen to generate employment.

There is, of course, give and take between the government and industry. But it is often non-transparent and perceived to be largely for private, not national, purposes. This can change if industry decides to make the government accountable and not continue to act as a supplicant seeking favors. But for that, industry has to achieve even greater social legitimacy by paying its taxes honestly, not cutting regulatory corners, and generating employment and lowering prices when it can. It has to be seen by the people as working for national goals and not only for maximizing personal consumption and ostentation.

Unlike Korea, we have still not recognized the importance of attracting back our human capital. Instead, we celebrate whenever a person of Indian origin earns global recognition. This is a loser's pride! Given that Indian higher education system is hardly producing any globally-comparable researchers, the only way forward is to attract talent back from abroad as seed capital. Indian industry can play a major role by letting charity begin at home rather than donating millions of dollars to foreign universities.

Moreover, it should be recognized by all those concerned that talent will not be attracted only because of a love for the motherland or for a possible entry into policymaking, as increasingly difficult as it is. Researchers need living and working conditions comparable to the ones they are giving up. It is time we paid attention to these issues. For once, we can learn from Pakistan, where in 2006, the government announced education pay scales that, in purchasing power parity terms, are better than those obtained in most advanced economies.

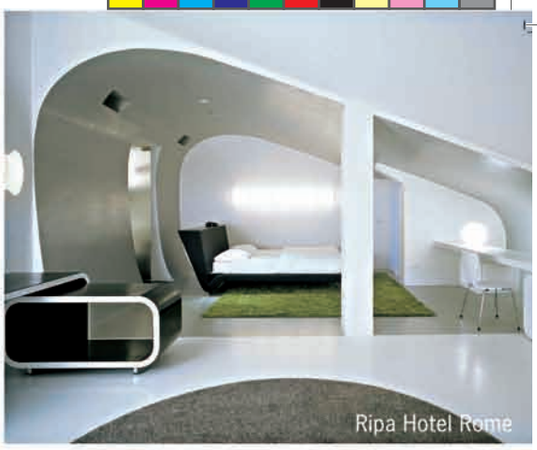
Rajiv Kumar is director & CE of ICRIER, New Delhi, India. These are his personnel views.

Acknowledgment: This column was first printed in 'Mint,' a newspaper in India, and is being reproduced here with the permission of the author.

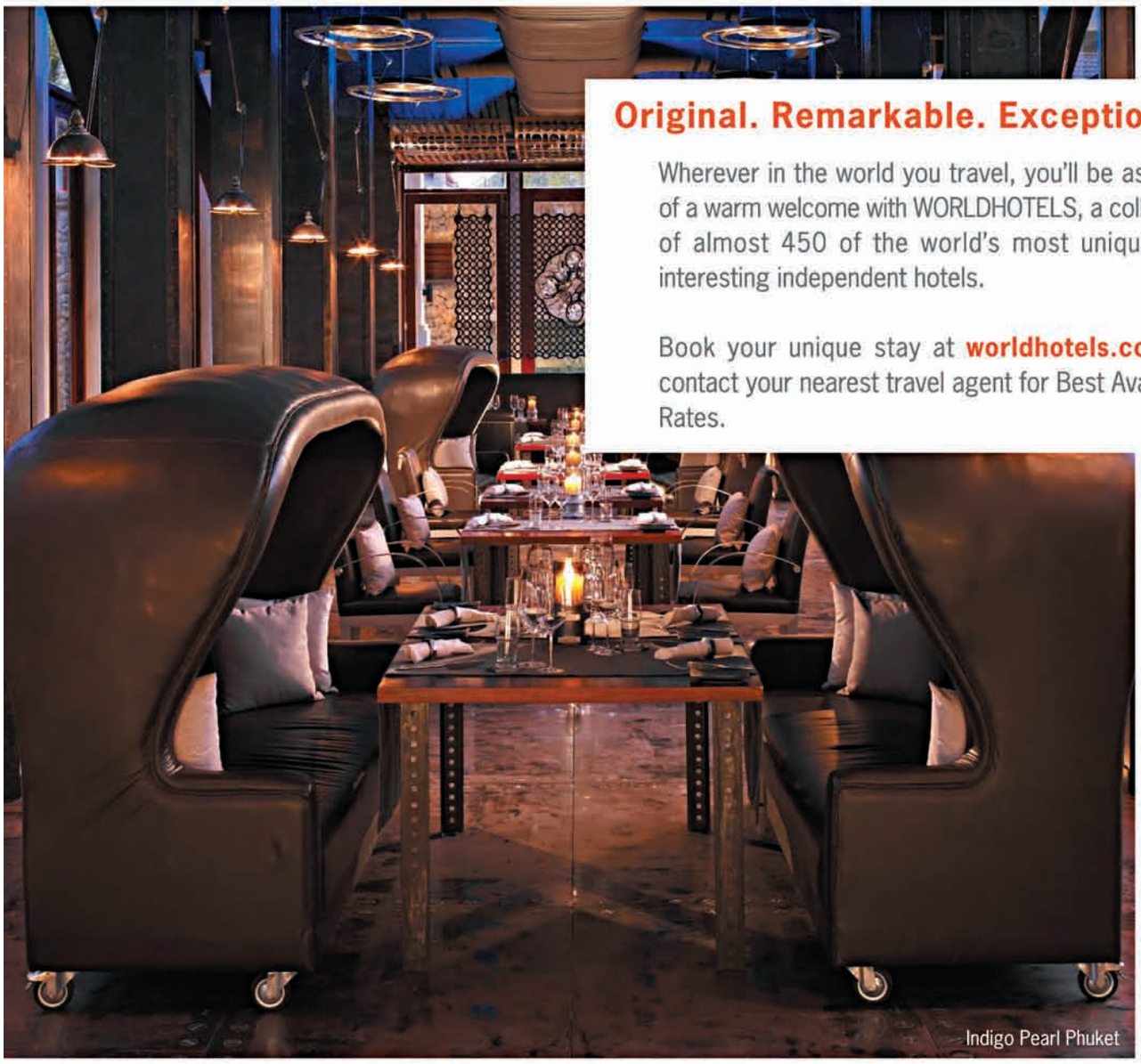
AP-11 copy.indd 50 3/25/10 8:32:27 AM

Harbour Grand Kowloon

The Claridges New Delhi


Ripa Hotel Rome

DISCOVER THE WONDERS OF THE WORLD


Indigo Pearl Phuket

Original. Remarkable. Exceptional.

Wherever in the world you travel, you'll be assured of a warm welcome with WORLDHOTELS, a collection of almost 450 of the world's most unique and interesting independent hotels.

Book your unique stay at **worldhotels.com** or contact your nearest travel agent for Best Available Rates.

UNIQUE HOTELS FOR UNIQUE PEOPLE
worldhotels.com

WORLDHOTELS

AP-11 copy.indd 51 3/25/10 8:32:31 AM

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