FOREIGN R&D CENTERS PROLIFERATE IN JAPAN

In view of potential market size and its growth in Asia, establishing and improving R&D bases in Asia is becoming more and more important for foreign companies. And recent evidence demonstrates that foreign companies more than ever are looking to Japan as a key base for research and development. They are especially drawn to Japan because of its huge talent pool, political stability, solid infrastructure, concentration of world-class manufacturers with leading-edge know-how. Japan is an opportunity they cannot just ignore but must exploit.

EMPIRICAL EVIDENCE

This growing interest in bolstering their presence in Japan is born out in a Japan Attractiveness Survey conducted recently for the Japan External Trade Organization (JETRO) by Ernst & Young, the large U.S. consulting company. Between December 19, 2007, and January 25, 2008, Ernst and Young interviewed 209 international senior executives by telephone in six languages. These executives represented five sectors that are viewed as having high investment potential in Japan: information and telecommunication technologies; wholesale, distribution, logistics and other business-to-business services; life sciences; automotive production and equipment; and manufacturing of electronics, electrical instruments and high-tech machinery.

Responses to the survey showed that Japan and China are jointly perceived as the most attractive countries in Asia for foreign direct investment, with both receiving top grades from 27 per cent of the respondents. But in areas especially relevant to R&D, Japan stood head and shoulders over its Asian rivals. Fully 39 per cent of respondents mentioned Japan as most attractive for availability and quality of R&D and 25 per cent name it as the best place to locate an R&D center, against 20 per cent for second-place China, and 14 per cent for third-place India.

Japan also led impressively on risk-related factors. In terms of the attractiveness of its telecommunications and transportation and logistics infrastructure ranking tops among respondents, respectively, at 32 per cent and 33 per cent. Thirty-two percent of investors cited Japan as the most transparent and politically stable country in Asia, against 15 per cent for second-place China. In terms of labor skills, Japan drew 27 per cent of the top mentions, followed by 23 per cent for China. These comprehensive and quality environments go a long way in showing that Japan was the most-favored location for R&D center among the survey respondents.

To be sure, there’s a big gap between Japan’s perceived attractiveness and actual inward direct investment. Although that has been growing, Japan still ranks fifth in Asia on that score and 20th in the world behind the Czech Republic. The Ernst & Young survey indicates that Japan has room for improvement. Forty-five per cent of those interviewed are looking for lower taxes and 38 per cent hope for reduced labor costs. Fully 40 per cent want better measures to reduce language barriers.

These factors are not by any means deterring global technology giants from bolstering their R&D presence in Japan. Under mounting pressure to remain competitive in this era of inexorable globalization, they feel compelled to strengthen their ties with Japanese powerhouses in such industries as autos, IT and electronics. They are especially eager to work with their Japanese customers and partners in refining and improving applica-
On July 16, 2008, business software giant SAP AG of Germany announced the opening of its second-largest overseas Co-Innovation Lab in Otemachi, Tokyo, one year after launching its first one in Palo Alto, California. The company said this move “further broadens efforts by SAP to work with software solution partners, technology partners, service partners and customers to accelerate the innovation and delivery of solutions designed to address industry-specific business issues for companies around the world.” SAP said it would take advantage of Japan’s rich history of custom software development to help local customers adopt enterprise service-oriented architecture, Green IT and virtualization techniques. It announced that 17 Japanese companies including Hitachi Ltd., NEC Corp. and IBM Japan Ltd. had agreed to work with SAP Co-Innovation Lab Tokyo (COIL Tokyo).

“Japan is recognized as the leader in the world for high-value technology,” said Zia Yusuf, Executive Vice President and head of the Global Ecosystem and Partner Group at SAP’s headquarters. “The SAP Co-Innovation Lab in Tokyo will be a hub where SAP Japan and partners can prototype and showcase solutions with the newest technology to address industry-specific needs of Japanese customers as well as introduce innovative ideas from Japan to the world.” It would do this, he said, by integrating hardware and software from the participating companies to recreate real-world situations in the lab to develop new business applications.

SAP is the world’s leading provider of business software, offering applications and services to companies of all sizes in more than 25 industries. With more than 47,800 customers in more than 120 countries, the company is known for its enterprise resource planning software and related applications such as supply-chain management, customer-relationship management, product life-cycle management and supplier-relationship management.

GETTING STARTED

In a run-up to the formal opening of COIL Tokyo, SAP started working in Tokyo from April with Intel Corp. and VMware Japan to validate new software and hardware. With Intel, SAP completed a Green IT-related validation effort to reduce total energy consumption of certain Intel processors by more than 50 per cent. And with VMware Japan, SAP used the lab to identify the advantages of using virtualization in SAP enterprise resource planning upgrade projects. The one-month project proved that unifying existing servers into a virtual environment is possible through upgrade and that system-improving activities can be done more easily using VMware solutions. The addition of the SAP Co-Innovation Lab in Tokyo is a natural fit for Japan. And Japanese traditionally strong focus on custom development makes it a prime location for co-innovation with customers and partners, which can be delivered to SAP’s global customer base.

SAP incorporated in Japan in 1992 and now employs about 1,450 people. Last year its total revenues grew by 14 per cent, faster than the market in general. Why? “In Japan, large companies have been going more for homegrown software,” explains Axel Henning Saleck, head of SAP Co-Innovation Lab Tokyo. “Now they are reconsidering this approach and considering total cost. At the same time, we’ve made our applications more flexible. It’s now easier to adapt the SAP model.”

Traditionally, SAP sought to build very big applications that could solve all of a company’s needs in a standardized way. But as it learned that one product cannot cover everything customers want, it has decided to tap their expertise and learn their problems. The Co-Innovation Lab in Palo Alto was a major step in the direction and its success led to COIL Tokyo. Japan was appealing because of its innovation powers, special needs and the existence of strong customers.

COIL Tokyo, which occupies about one-quarter of an office-building floor and contains numerous servers, terminals, and large collaboration screens, now has a full-time staff of about 10. About two thirds were already SAP Japan employees and the others had experience working in the company’s headquarters in Germany. “We were lucky we had people,” says Saleck. “Without them it would have taken a long time to get up to speed.” Teams from Europe or the U.S. would not have had the same relationships and knowledge of local customs that is so important in Japan. Saleck’s four years’ experience in Japan also helped him avoid unforeseen problems. “We knew the environment,” he observes.
CERTAIN HURDLES

That doesn’t mean that getting COIL Tokyo up to speed has been problem-free, however. “Space is more valuable in Tokyo than elsewhere,” Saleck says diplomatically. Japan’s R&D environment also differs somewhat from those in Europe and the United States. “In Japan, at first you start to feel that there are fewer young people with IT knowledge on the job market,” Saleck says. “In Europe or the United States, R&D companies look for recent graduates in IT, math or physics and assume certain skills. In Japan, if you hire straight from a university what the person studied is not decisive. You have to train them.” That means an R&D employer must behave like a mix of a university and a company, he elaborates. What is more, experienced Japanese generally are less interested in changing jobs than elsewhere.

On the other hand, Saleck continues, “The quality-consciousness of Japanese people is a huge advantage” In Germany, he says, engineers try to think theoretically and design solutions to avoid problems. In Japan, they are creative at the beginning but do far more quality cycles. “You get the same results but the methods are different,” Saleck explains. “Japanese are usability-focused. They make an effort to make software easy and intuitive. Products like this are transportable globally. That means Japan can be an exporter of business applications.”

Saleck says he has no too specific target for COIL Tokyo five years from now but he expects it to be substantially larger and looking back on sound results. Already, customers and partners are working at COIL Tokyo both physically and virtually. “We clearly feel the demand,” Saleck affirms.

DU PONT BOLSTERS ITS ELECTRONICS TECHNOLOGY CENTER IN JAPAN

With roots in Japan going back to 1961, DuPont Kabushiki Kaisha and its group companies have built annual sales to 365.7 billion yen with a workforce of 781 employees. Its activities include production and sale of organic compounds, import and export, R&D and technical services. Since DuPont Japan Technical Center was established in Yokohama in 1987, its R&D efforts have been supporting customers not only in Japan but also outside Japan. However, that changed dramatically when local automakers and electronics companies seeking to strengthen their lead in the global market, ratcheted up their demand for more advanced materials and system solutions. To respond, DuPont K.K. knew it had to bolster its research and development capabilities in Japan.

It didn’t have to start from scratch. DuPont has focus on research and development for more than 20 years. In 1987 the company had opened a technical center in Yokohama, Kanagawa Prefecture to work with such products as polymers. In 1997 the technical center and New Business Development-Japan Center moved to Utsunomiya, Tochigi Prefecture, where Engineering plastics plants were, and more aggressive R&D work began as one of the strongpoint of global DuPont R&D network.

And with Japanese customers, DuPont has been involved in research and development of plasma display from the beginning, which is originally made in Japan and now increases its global market share. In 2005 the company opened the DuPont Electronic Technology Center (DEC) in Kawasaki, strategically located between Tokyo and Yokohama. Based in the Kanagawa Science Park, where DuPont already had several divisions operating, the rented site is close to Haneda Airport and the Shin Yokohama shinkansen station so is relatively convenient for customers and suppliers traveling from both inside and outside Japan.

Starting out with about 20 scientists, the center in three years has grown to more than 100, with about 50 people focused on plasma-display, photovoltaic and other new initiative materials and 50 concentrating on semiconductor applications. Furthermore, in this September, DuPont opened new photovoltaic-focused lab for photovoltaic market that has been growing by leaps and bounds in the global market. Their work supports the needs of customers throughout Asia and also does some global work for the parent company. “DEC is one of the most important R&D centers in the world for DuPont,” says Takayuki Ohba, Japan Country Leader for Electronic Technologies.

CRITICAL MASS

Why put the center in Japan instead of Korea, Taiwan or India? “Critical mass is important so we needed to concentrate on one place,” Ohba explains. What is more, customers in Japan care much more about long-term relationships than those in other Asian countries, he adds. “We develop fundamental technologies with key Japanese customers first and then can leverage
that for other places.” Japan boasts cutting-edge technology, he continues, and is home to strong raw-materials and equipment makers. Sixty-five per cent of the “value chain” behind plasma display and LCD TVs sold by television makers globally originates in Japan, Ohba stresses. “Japan has a strong infrastructure.”

Another key reason to locate the center in Japan was that Japanese customers, the biggest suppliers of flat-panel TVs in the world, prefer to close-local R&D backup. “Opening the Kawasaki center showed our commitment to this market,” Ohba continues. “It was a good sign for customers.”

He acknowledges that hiring good scientists in Taiwan is much easier than in Japan because DuPont has a bigger brand name there and some Japanese hesitate to leave their original employer. But DuPont K.K. compensates by hiring recent university graduates. “They are very fresh so they can learn our corporate culture,” Ohba says. “Our half-century history here helps.” Yet another selling point to prospective hires is that DuPont can offer them wider fields of work from an early stage than most Japanese employers do. Letting young employees think in regional and global terms is a big attraction. What is more, many Japanese have started losing their fear of being fired by foreign employers. Today, Ohba finds little resistance from people he wants to hire.

KEEPING EMPLOYEES

Once he lands them, he says, few want to leave because DuPont gives them wider opportunities and better training than most Japanese companies. DuPont globally uses Six Sigma as the way of life. Moreover, the company’s culture emphasizes core values of safety & health, environmental stewardship, ethical behavior and respect for people. DuPont conducts a satisfaction survey every two years and the last one showed that 93 per cent of staffers in Ohba’s strategic business unit agreed the statement, “DuPont is a great place to work!”.

All in all, the DEC has helped DuPont Japan attract experienced people and customer interest. Today, Ohba’s vision is for the lab to become a center of excellence for DuPont globally. It is already one of the company’s biggest electronics-related labs, partially because about 60 per cent of revenues come from Asia and will continue to grow proportionately. “We’re shifting resources to be closer to customers,” Ohba says. “We hope to double the center’s size within the next five to six years.”

ADDING IT ALL UP

Compared to other Asian countries, Japan has accumulation of world-class companies which has top-drawer technologies and knowledge. And foreign companies in Japan, such as SAP and Du Pont, can gain a good foothold for global market through promoting globally competitive research and development with Japanese partners. Actually we hear some saying that Japan is a high-wage country. On the other hand, some company focus on cultivation of human resources by sitting tight in Japan market and building their corporate culture in sufficient time, as Du Pont does. The country’s quality of services, leading-edge technology, superior human resources and development of new products offers attractive opportunities for long-term growth. That explains why foreign companies are boosting their R&D there as they map out strategies for Japan’s high-quality business environment.