The Future of PEO

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R&D Magazine had a very insightful cover story on the future of outsourcing in their July 2007 issue. Entitled R&D Outsourcing Becomes More Strategic, the article reported on the result of its May 2007 survey on outsourcing. Interestingly, according to the story, 51% of those who responded to the survey disclosed that the major reason for their outsourcing is the expertise of the external or outsourcing companies. Manpower comes second on their list of reasons while third is workload. Surprisingly cost only came in on the fourth. The result of the survey indicates the current trend and the future of outsourcing.

A study conducted by NASSCOM and Booz Allen Hamilton on the potential of outsourcing in engineering found that there will be a great growth in engineering services by the year 2020. According to the study, engineering services is expected to increase to $1.1 trillion by the end of 2020. This is a dramatic increase compared to the $750 billion in services by the year 2004. Further, the study showed that the there are significant increases in automotive, aerospace, utilities and telecommunications.

Shift in geography of Innovation

There are several indicators why many see this shift in outsourcing as inevitable. One of the more obvious indicators is that with the United States at the top of the lead on number of researchers, China as of 2004 is coming close at second. This implies that when it comes to top talents and innovations, there is definitely a shift in geography. Meaning, in China and other developing countries, there is now an increasing pace in technology innovation that makes them as competitive as the Westerners. This large number of researchers also implies that there is now a great demand for POE in China and India.

For the last past years, many Fortune 500 companies also reported their increasing number of offshore outsourcing, mostly in India. Another indicator is the acceptance of Professor Andrew Yao in 2004, leaving Princeton, to the Center for Advance Study at Tsinghua University.

What enables the geographical shift in innovation are: the continuous expansion of undersea fiber optic networks, the use of English as language of business, the use of VoIP and the development of IP enforcement.

Taking as precedent the offshoring in the 90 for manufacturing and in 2000 for services, Delta predicted that by the year 2017 the United States' 3.3 million industry works, I million services IT jobs would be offshored. This will total around $136 billion in wages lost. Moreover, a major downsizing of R&D laboratories in the United States and Europe is seen as inevitable in the next couple of years. Delta also made a bold prediction that a researcher in China or India will receive the Turing Award. These obvious indicators and trends will inevitably create a shift in geography in innovations.

Efficiency, Customer Service and Profit direct the Future

Dave Busch, vice president of Solectron Corp. wrote a very illuminating article entitled Beyond Outsourcing: Product Stewardship, which demonstrates how outsourcing in medical field is practically leading the way in how outsourcing is being applied to its maximum potential. According to Busch, under the product stewardship model or PSM, medical device companies can rely on outsourcing provider or contract manufacturer for the a given product in terms of its design, manufacturing, engineering and even after sale support and service. This way the medical manufacturing firms can then utilize their engineering resources on product initiatives that will help them in being more competitive. The positive outcome of how outsourcing is used in the medical field adds to the already growing demand for product outsourcing not just for large medical device OEM but including the small manufacturers.

An article in Business Week showed how the future of how outsourcing shall be for the companies and for the whole business industry in general. Citing the Paper Converting Machine Co. (PCMC) as an example, the article told how PCMC fell on hard times when one of its major customers urged the company to cut its prices by 40% and move its production in China. Barry-Wehmiller Co. soon acquired the company. Part of its turnabout strategy was giving pieces of its design works in an outsourcing provider in India. Barry-Wehmiller says the strategy has already shown significant profits. CEO Robert Chapman added, "We can compete and create great American jobs. But not without offshoring."

The future of outsourcing relies on the efficiency, customer service and additional profit provided by having a job outsourced offshore and the way outsourcing is benefiting many companies, the future will definitely create additional market for outsourcing, not to mention additional benefits for the buyers.

The Future of Outsourcing

Journalist Researcher Dave Llorito wrote in his article The Future of Silicon Valley that many analysts are now worried about the growing rise in innovation labs in Asia and the transfer or return of the many Asian scientist to Asia. Moreover, the article stressed that there is a decline in the perception of American technology as the superior technology, which also causes alarm for many American analysts.

What is particularly more alarming is that the perceived notion that this causes loss of jobs for many Americans particularly so since many companies now open R&D labs in China or India. Called "innovation offshoring", creates a raising apprehension the China will soon be the leader in technological supremacy, taking over the United States.

The truth of the matter, according to the president of the United States Technology Office, Gregory Shea, is that the increasing number of offshoring and outsourcing will act as support and therefore strengthen, and not undermine, the American owned multinational companies. "When you look closely at these, they usually involve less-than-leading-edge technology. Rather they are aimed at producing high-volume, relatively commoditized products and components for local and regional markets," comments Shea. "These investments are critical for securing and building a strong market position in such a large and expansive market as China."

More importantly Shea adds: "They are also critical to ensuring continued revenue growth for the company as a whole, which is vital to supporting high-end jobs in research, design, marketing, finance, legal and other areas of corporate administration in the headquarters [in the US] and other countries."

Anna Saxenian, Dean of UC Berkeley School and known for her work on migration in Silicon Valley wrote in her book The New Argonauts: Regional Advantage in a Global Economy that, "These

[innovation centers] don't compete; they complement each other." She added, "This does not imply decline. Rather it will become one of many nodes in a more open and distributed global network of differently specialized and complementary regional economies."

The Wave of the Future in Product Engineering Outsourcing

India has been called as the outsourcing destination of the world. According to the article The Big Wave, the country is continuously proving its name by the way it is providing and leading the way of product engineering outsourcing. The growing demand in product engineering outsourcing have the three major companies in India, the Patni Computer Services, Tata Consultancy Services and Wipro Ltd expecting a total of over ten billion in revenues for just three year. This only shows that there is definitely a growing demand for product engineering outsourcing and those with expertise shall be the first to cash in on the initial outpouring of investments from buyers. Semiconductor market is also expected to play its leading role in the increasing demand for product engineering services.

According to Nasscom, it is estimated that product-engineering outsourcing, including offshore development of products and software, shall definitely be over ten billion business by the year 2008. Ajay Chamania, vice-president and head-embedded technology solutions of PCS, stated that, "In addition to consumer electronics, which is traditionally known to be a high adopter of embedded technologies, there are significant opportunities in verticals like automotive, medical electronics and computing that are driving the growth of PES outsourcing."

Moreover, technology platforms have made information integration of engineering products, efficient management of assets and production facilities. Thus, common enterprise applications are now on the rise for innovation programs and solutions. The future of product engineering outsourcing is definitely on the positive increase in demands. Experts and analysts states in the article The Big Wave suggests that the advantage of the country over another in the way it provides product engineering outsourcing is in its ability to be able to deliver the technology services to the increasing number of global buyers at fast rate but with high quality output.