## **Communications of the IIMA**

Volume 4 | Issue 2

Article 9

2004

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Carothers, Helen M. and Steinke, Gerhard (2004) "Review of IT Offshore Outsourcing issues," *Communications of the IIMA*: Vol. 4: Iss. 2, Article 9. Available at: http://scholarworks.lib.csusb.edu/ciima/vol4/iss2/9

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## **Review of IT Offshore Outsourcing Issues**

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## ABSTRACT

This paper attempts to take an objective look at offshore outsourcing within the information technology (IT) industry. Background material is provided to establish a clear definition and context for the discussion. Basic benefits, risks, and trends are identified and domestic market impacts are explored.

### BACKGROUND

"Offshore outsourcing" and/or "offshoring" refers to moving work and the related costs from a developed country to a lower-cost, developing country. The practice really took hold in the IT industry in the mid 1990s. At that time, the IT labor market was very tight in the developed countries. The IT industry growth was strong, fueled in part by the dot.com market expansion, and businesses were faced with the urgent need to upgrade their legacy systems for year 2000 available technical reliable resources and global compliance. The (Y2K) date telecommunications infrastructure made offshore outsourcing a viable (and sometimes the only) option for dealing with the legacy systems. The initial contracts with providers in India were so successful that India became well known for its high-quality application development and maintenance work.

The IT labor market became less intense in 2000 as the Y2K requirements abated and the dot.com bubble burst. However, a downturn in global economies forced businesses to look for new ways to reduce operating costs. The success of offshore outsourcing for the Y2K projects prompted many to explore additional offshore capabilities. Reductions in global telecommunications costs have made the offshore options even more attractive. Cost cutting has proven to be a significant driver of the offshore outsourcing market.

#### **Outsourcing Models**

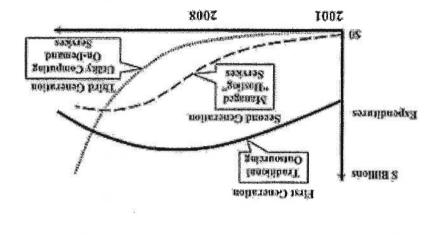
The maturing market will see more sophisticated providers transforming their offerings to focus on higher value work. As providers gain experience, they will begin to distinguish and differentiate themselves from the competition. This specialization of providers will move the offshoring consideration (driver) from cost to quality. The trend will lead to more componentbased solutions, more packaged solutions, and eventually offshore providers will create end-toend solutions for business processes and their underlying IT support.

The early IT outsourcing legitimized the offshore marketplace and helped the Indian providers develop and grow. The offshore providers increased their service offerings from their initial role of building and maintaining applications to performing other value-added activities, such as supporting help desks and handling business processes.

As the offshore outsourcing market grew, the offshore providers began adding operations onshore and the onshore businesses began building offshore subsidiaries. The two primary models used in offshore outsourcing are ownership and contract. The offshore ownership model was used in the first wave of offshoring in the early 1990s and required either establishing a subsidiary operation or developing a partnership with an offshore firm. As offshoring grew, these initial offshore entities began acquiring new customers outside of the ownership circle and the offshore contracting model evolved. The contract model further reduces costs and risk, as the contracted provider owns the facilities, employs the staff, and assumes the responsibilities for some or all of the deliverables to the client.

Rapid expansion in the offshoring marketplace has caused some fragmentation with a wide variety of business models, disparity in provider maturity, and new service offerings. Consolidation can be expected in the future with providers offering more end-to-end business process services with the underlying IT support included. The new service offerings include new application development, implementation of application packages, call centers, remote network management, infrastructure outsourcing, and business process outsourcing (BPO). Some offshore providers are even moving into ERP services, product engineering, embedded software, and technical services. Internet-enabled service providers further extend opportunities.

A graphic view of outsourcing trends connes from the IDC's Outsourcing and Utilities Services research (2004):



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Source: Australia Outsourcing and Utility Services: Research Fact Sheet. IDC's IT Outsourcing and Utilities Services (2004) The IDC chart shows that outsourcing will change rapidly in the next few years with the market shifting to host managed and on-demand services. This chart shows the prediction that a new offshoring model and way of doing business will kick in about 2007 and rapidly increase the demand for offshore resources.

The current economic downturn will slow the growth rate short-term and will facilitate provider consolidation. The growth rate will also be affected by the mid-market adoption, as the smaller firms are more cautious than the larger ones and therefore move into the market more slowly. As the mid-market businesses move into offshoring, the providers will also adjust their offerings to accommodate the smaller scale operations and requirements.

The simplest offshoring occurs with repetitive tasks. The next level of offshoring involves rulebased decision-making and problem resolution. The emerging trend is towards more complex offshoring that involves fully analytical tasks, research, and non-rule based decision-making. Offshoring originally provided resources when onshore labor was short, the emphasis then switched to cost reductions, and the trend is now moving towards process improvements and reductions in delivery time. As work at each level is moved offshore, the domestic workforce is consolidated in the higher levels of work.

Growth potential in the offshore market is large but opportunities vary by market penetration. There are fewer opportunities in application development and maintenance work as most offshore relationships already include application development and maintenance work components. More opportunities exist in new application development, enterprise application integration, implementation of application packages, and business integration but growth is restricted, as they require higher onshore resources and present less cost advantage to leverage. The greatest opportunities and lowest current penetration exist in the areas of new service offerings such as call centers, BPO, and infrastructure outsourcing. Estimates are that India's IT-enabled services exports will increase tenfold over the next four years, from US\$1.5bn in 2001–02 to US\$17bn by 2008 (Roach 2003).

As offshoring increases, overall IT spending as a percent-of-revenue is being reduced. This trend will continue as businesses are offshoring more complex and cost intensive processes. The long-term contracts allow both the risks and benefits to be spread over more time stabilizing the impacts.

In January 2004, Software Development magazine published a survey of U.S. business technologists. The survey found that 94 percent of those surveyed have moved coding overseas and 74 percent have done so with application testing. Only 16 percent of those surveyed are placing business-integration projects offshore (Information Week 2004).

The following chart from Software Development magazine's survey (Information Week 2004) shows the type of applications being sent offshore and the distribution among survey respondents:

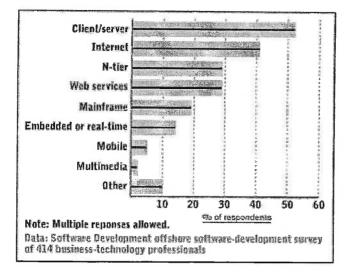
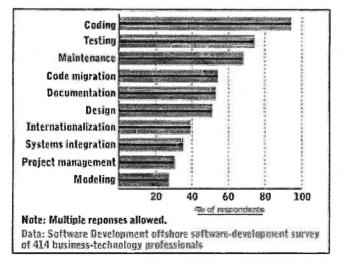
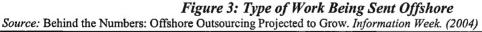


Figure 2: Applications Being Sent Offshore

Source: Behind the Numbers: Offshore Outsourcing Projected to Grow. Information Week. (2004)

This chart, also from Software Development magazine's survey (Information Week 2004), shows the type of work being done offshore and distribution among survey respondents





## DRIVERS

Offshore outsourcing in the 1990s was driven by the availability of resources, then in the early 2000s by the need to reduce costs. A key enabler of offshore outsourcing has been low-cost telecommunications based on the Internet and the millions of miles of fiber cable that have been

laid around the world. The low-cost of telecommunications enables businesses to leverage highly qualified workforces anywhere.

An often overlooked driver of offshore outsourcing is demographics. The large, educated populations in such countries as India, China, and Russia provide a ready supply of talented workers and incentive for offshoring. The high quality of offshore work has enable businesses to get equivalent results at a lower cost than in-house or locally outsourced services. The reduced labor and operating costs offshore allows service providers to invest in training and infrastructure thereby increasing their capabilities and quality.

As contract outsourcing took off it spawned a huge boom to India's IT economy and started many other countries thinking about developing their own offshore capabilities and marketing their low-wage resources. The successful collaboration between U.S. and Indian providers facilitated offshore expansion into other countries including Lithuania, Philippines, Mexico, Canada, and South America. Increased capabilities offshore, coupled with the success of pioneering companies, has reduced the risks and encouraged more businesses to consider the options.

A continued weak global economy has contributed to the growth of offshore outsourcing as businesses seek to further reduce costs. To remain profitable and retain competitive advantage, companies are focusing on their core competencies and frequently outsourcing other functions. The low labor costs and high service levels of offshore markets make them very attractive alternatives.

While some national and geographic differences can be expected, these same forces are also driving the offshore outsourcing in other countries. IT outsourcing is one of the most successful areas of IT and continues to grow as companies seek to reduce costs and increase delivery of new technologies. Increased difficulty in recruiting qualified technical and program management staff contributes to the outsourcing growth. Web-based collaborative tools, inexpensive bandwidth and standardized business applications make it easier to outsource development, maintenance, and support.

## BENEFITS

The first and most obvious benefit of offshore outsourcing is cost reduction. A net savings of 25%-50% is compelling enough to get people to change. Cost savings and the monetary value of outsourcing come from a variety of levels. The first, and easiest to identify, is the pure wage differential between offshore and onshore workers. A second level of cost savings comes from enhanced processes, due to domain knowledge. IT functions are often operational components for a business concentrated in other markets. Offshoring these functions to a provider with expertise in IT naturally brings stronger domain knowledge to bear in the solutions. A third level of value comes from reengineered processes and process improvements. Offshoring can bring dispersed components together in a shared service environment to optimize the handling of tasks. From a process perspective, the value can be seen in three steps: 1) stabilizing, 2) optimizing, and 3) fundamental improvements. Each of these process steps correlates to a level of value for the business.

In the 1990s offshore projects were defined and managed onshore with the offshore provider simply executing the project. Today, many of the offshore providers offer full service in that the onshore business simply has to identify the problem and the offshore provider can design, manage, and execute the solution. Some offshore relationships have developed to the point that the offshore providers can initiate the process by identifying problems, anticipating needs, and providing innovative solutions for the onshore business.

Quality is an identifiable benefit as offshoring taps a very large and highly educated workforce. Frequently, work being done onshore by people with a high school diploma is done offshore by people with at least a college degree; sometimes even a masters degree. The work itself is often defined differently for offshoring as projects are generally well defined with predictable results. The combination of better project definition and a highly skilled workforce creates better, cheaper, faster solutions.

Outsourcing improves operations. The logistics of outsourcing work often opens the door for process improvement. Rather than shipping paper documents many companies use imaging technologies to transfer documents to the offshore provider. The use of imaging makes the entire process of document handling more efficient so the benefit of the investment comes not just from being able to move work offshore but also how work in the rest of the company changes.

As offshore providers develop specific capabilities, onshore businesses are more likely to move away from the single source contracts into a "best of breed" model where different offshore providers are used for different types of work. Using multiple offshore providers guards against single point-of-service failures. Having more than one company at more than one location spreads the risk by reducing both exposure and dependence. Offshoring to multiple sites also reduces geopolitical risks and enables disaster recovery.

Long-term contracts have become common in recent years. The longer contracts allow risk and setup costs to be spread over more time thereby reducing the immediate impacts. These longterm contracts also allow for more complex offshoring and generally involve significant investment from both parties. This also guarantees stability in the relationship and provides reasonable economic security.

Offshoring has matured enough that the long-term benefits have proven themselves a viable part of the equation. Long-term benefits include quality, speed, scale, and knowledge. Offshore outsourcing success can be seen in lower costs, the increased quality of the work, and the increased productivity of the people. The best results are often achieved by combining outsourcing with a comprehensive reorganization (transformational outsourcing). Offshoring providers can complement onshore giving a more comprehensive business solution. Benefits from combining onshore, nearshore, and offshore can translate into increased business continuity and availability.

Governments on both sides have encouraged offshoring. Involvement has included speeding visa application approvals and granting waivers in labor laws as well as offering incentives both to offshore providers who bring work into developing countries and to onshore businesses that use offshoring to promote the global economy