A new wave of global outsourcing to India known as knowledge process offshoring, or "KPO," is following on the heels of the remarkably successful Indian market for information technology outsourcing (ITO) and business process outsourcing (BPO). Like ITO and BPO, KPO allows companies to realize substantial cost reductions by offshoring domestic business functions to lower cost foreign venues. KPO differs, however, in also helping companies gain strategic advantage over competitors by virtue of the type of offshored processes and functions it involves. KPO offers significant potential benefits, but with possible greater reward comes risk, and KPO involves a number of key issues and risks that must be carefully evaluated when considering a KPO transaction in India.

KPO involves the offshore outsourcing of knowledge-driven or "high end" processes that require specialized domain expertise, such as R&D, insurance underwriting and risk assessment, financial analysis, data mining, investment research, statistical analysis, tax preparation, engineering and design, animation, graphics simulation, medical services, clinical trials, legal services and more. Unlike the ITO and BPO market sectors, which create cost savings solely through leveraging economies of scale and "rules based" process expertise, KPO accesses the global talent pool to carry out processes that demand specialized analytical and technical skills as well as the exercise of judgment and decision-making. The strategic driver for KPO is to add value by providing high quality business expertise and superior productivity through improved time to market in addition to realizing the traditional cost reductions through arbitrage of labor markets that have made ITO and BPO successful.

This article first appeared in the Issue 9 of Business & Technology Sourcing Newsletter.
Although there are vast first-mover benefits to U.S. and European participants in KPO, meaningful challenges exist that must be addressed and navigated knowledgeably so as to achieve and maximize the strategic incentives the KPO model offers. Potential KPO customers must overcome the natural and understandable hesitation to relinquish control over the outsourced processes. These processes and their associated data are often critical, and companies have legitimate concerns about data security, intellectual property protection, quality assurance, regulatory compliance, and cost, to name just a few concerns.

In addition, KPO, by definition, involves a deeper investment by the customer in the host country’s educated workforce and a dependence on that workforce that far exceeds BPO and ITO, and a greater dependence on the stability and predictability of the underlying governmental and social structure of the host country. As a result, a deeper understanding of the host country’s business, regulatory, and legal framework becomes imperative.

**Attraction of India’s “Knowledge Class” for KPO and First Mover Advantage**

The reward of successfully implemented KPO is truly enormous. The global KPO market is poised to grow over 45 percent per annum to $17 billion in 2010. India is emerging as the global KPO “hotspot” and is expected to capture over 70 percent of the market share going forward. The major KPO domains expected to grow in India over the next five years and their respective estimated value pie distribution are reflected in the chart below. India has a large reservoir of English-speaking, knowledge-based professionals who are available at extremely competitive salaries, and a rapidly evolving legal and regulatory environment that is based on a western model and is increasingly friendly to foreign investment.

**KPO India – Next 5 Years**

![Chart showing KPO domains and value distribution in India](chart.jpg)
With the cost of bringing a new drug to market continuing to increase in the U.S., with the latest estimates approaching US$1 billion, the possibility of potentially reducing the cost of clinical trials and drug discovery by up to 50 percent by moving those processes offshore cannot be ignored.

The future prospects for KPO in India are immense because KPO is applicable to multiple industry sectors in which India’s highly-skilled workers and technically educated professionals have developed particularized expertise. These sectors include finance, pharmaceuticals, healthcare, biotechnology, insurance, electronics, software, aerospace, automotive, textiles, industrial machinery, entertainment, media and publishing, education, law, and engineering. A number of U.S. businesses have already made successful forays into the KPO domain in India to leverage India’s “knowledge class,” including GE, IBM, Microsoft, HP, Intel, Oracle, Cisco, Texas Instruments, Sun Microsystems, Philips, Motorola, JP Morgan, Citigroup, McKinsey, Goldman Sachs, Reuters, Morgan Stanley, United Airlines, Ford, General Motors, and Caterpillar. Not only will many of these businesses likely expand their KPO operations in India, but a host of new entrants will assuredly also seek to leverage India's growing KPO sector.

Two examples of KPO in India are worth noting. In the pharmaceutical industry, global pharmaceutical companies such as AstraZeneca, GlaxoSmithKline, Pfizer, Novartis and Eli Lilly have moved portions of their clinical drug testing to India in an effort to tap into India’s vast and diverse population and pool of highly-skilled, but lower-wage demanding, scientists. This can significantly accelerate the trial time and time to market for new drugs, and offers potential cost savings of up to 40-60 percent relative to the U.S. India’s vibrant local pharmaceutical sector and its recently amended patent laws granting patent protection to drugs and chemical products, on top of the process protection historically provided, have also attracted global pharmaceutical companies to offshore R&D to India.

India’s attractiveness as an offshore destination for clinical research is further enhanced by investment incentive policies ranging from tax holidays to duty exemptions as well as India’s acceptance of the International Conference on Harmonization Guidelines for Good Clinical Practices. With the cost of bringing a new drug to market continuing to increase in the U.S., with the latest estimates approaching US$1 billion, the possibility of potentially reducing the cost of clinical trials and drug discovery by up to 50 percent by moving those processes offshore cannot be ignored. Increasing pressure on pharmaceutical companies to improve productivity and profitability without sacrificing quality to sustain competitive advantage makes KPO a compelling strategic route.

Similarly, in the financial services sector, there has been tremendous growth in India as leading global financial institutions (such as JP Morgan, Citigroup, Prudential, Goldman Sachs and ABN Amro) continue offshoring high-end work either through delivery by affiliated legal entities in India or by unaffiliated pure-play third party vendors. Most of these businesses originally outsourced IT-enabled common finance and accounting processes that are transactional in nature, such as accounts payable, accounts receivables, and payroll,
but have gradually migrated to offshoring high-end financial processes, such as equity research, business intelligence, credit risk analysis, and insurance claims processing.

**KPO Delivery**

When it comes to the KPO delivery model, one size does not fit all. Currently, three key KPO delivery models exist, which are (i) offshoring through affiliated legal entities in India, which can be thought of as “Captive KPO,” (ii) contracting with unaffiliated third party vendors, or what can be called “Third Party KPO,” and (iii) partnering with local entities to share control of local operations used for delivery of KPO services, or “Joint Venture KPO.” Each model has its own advantages and risks, and should be evaluated carefully so as to identify and assess the relative pros and cons for a particular KPO strategy. Businesses should adopt different delivery models for different situations, taking into account variables such as the nature and scope of the activities to be offshored, previous offshoring experience, concerns about security and control of intellectual property (IP), risk tolerance, tax considerations, and budgetary constraints.

For example, Third Party KPO can be more quickly implemented and often can offer greater flexibility in access to talent, scalability and cost structure. But it also yields to the third party more control over day-to-day operations and the handling of sensitive data and IP, and creates more reliance on the foreign host country’s legal regime and the timely enforcement of contracts. In comparison, a Captive KPO model usually requires more time to implement and provides less flexibility to ramp up or down quickly, but it ensures substantially more control over the management of the offshore operations and the company’s sensitive data and IP, and less dependence on foreign enforcement of contract rights. A KPO customer should consider adopting the Captive KPO strategy if the scope of KPO involves a substantial transfer to India of the customer’s critical proprietary technology, IP, or data, and the enterprise cost of possibly losing control over some meaningful component of any of those assets is high.

In India, KPO initially took hold in captive centers through the establishment of local subsidiaries and reportedly over 50 percent of offshore business in India is currently Captive KPO. But as the Indian KPO market matures and the business, legal and regulatory environment there continues to advance and stabilize, businesses can be expected to increasingly leverage the Third Party KPO model in light of the advantages that model offers in terms of flexibility, scalability, and range of expertise.

Regardless of the delivery model, KPO invariably requires the customer to disclose and share knowledge-intensive processes with the offshore provider, which knowledge may be in the form of proprietary technology, software, chemical entities, specifications, product designs, business processes, methodologies, drug formulations, or other sensitive data. Accordingly, the substantial benefits that KPO in India offers must be seen as “hand in hand” with the unique and heightened risks inherent in the transfer of customer-owned knowledge to India. These risks must be carefully considered upfront and mitigated to realize the full benefit of KPO to India.
Conclusion

KPO to India cannot only yield enormous cost savings and increased efficiencies but can also leverage India’s vast knowledge class to perform “high end” skill- and judgment-based services and functions. The potential KPO customer must be aware, however, that KPO presents a number of risks, particularly with regard to controlling intellectual property and protecting sensitive data, that must be considered and addressed. These risks can be managed, however, through appropriate due diligence, planning, and a well-crafted KPO contract that properly identifies and addresses the risks and provides real and practical protections and enforcement mechanisms.

Endnotes

1 Study conducted by EvaluateServe in 2004.
3 India produces 441,000 technical graduates, nearly 2.3 million other graduates and more than 300,000 postgraduates every year. A Survey of Business in India in The Economist, June 3, 2006.
4 A Deutsche Bank research report published in October 2005 reports that wages for skilled workers in India are rising on an average by 12-15% per year.
5 The National Association of Software and Service Companies (NASSCOM) predicts that the Indian IT sector faces a shortfall of 500,000 professionals by 2010 that threatens India’s dominance of global off-shore IT services. Financial Times, July 20, 2006.
6 The Patents (Amendment) Act, 2005.