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Chiamsiri, S., Bulusu, S. D. & Agarwal, M. (2005). Information Technology Offshore Outsourcing in India: A Human Resources Management Perspective, *Research and Practice in Human Resource Management*, 13(2), 105-114.

Volume 13:  
Issue 2  
Guest  
Editorial  
Call for  
Papers  
Regular  
Papers

## Information Technology Offshore Outsourcing in India: A Human Resources Management Perspective

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### ABSTRACT

With the rapid and globalising progress of Information Technology (IT), offshore outsourcing has been particularly popular in the context of business process outsourcing to India. Starting with services like providing the talent pool, and project execution, now the trend of offshore outsourcing is moving towards the higher value echelon of the IT industry value chain with activities like product design and development, as well as consulting. The paper discusses the paradigm of offshore outsourcing by providing a bird's eye view of the major IT-enabled services outsourced in India. It explores the possible changes of the nature of the services outsourced in India, and issues related to a human resources management perspective.

### INTRODUCTION

Outsourcing can be described as the contracting out of the company's major functions and activities to an external service or goods provider (Bryce & Useem 1998). In simple terms, outsourcing consists in conducting one or more organisational activities, using external agents (Lacity & Hirschheim 1993). Fuelled by the need for business flexibility to respond quickly to changing markets, outsourcing brings with itself, inter alia, the advantages of improving the company's focus on its core competency, gaining access to the world class society, reducing investments in the non core activities of the company, reducing the risks by sharing the investments, improving the production, abstraction of delays, and the creation of jobs due to the growing economy. In the recent survey of 5,231 executives across North America and Europe, who would generally be considered buyers of offshore outsourcing services, 95 per cent of the Fortune 1000 firms, and 19 per cent of all companies, have a current offshore strategy (Hatch 2004). In the current scenario, where the recession of the US economy left no part of the world untouched, many companies are looking at outsourcing as a way to improve their bottom line while maintaining or even improving the service levels. With all its advantages, outsourcing is one of the most sought after trends in the IT world. Nevertheless, despite all its strong points, outsourcing is not devoid of some challenges. For the IT industry, being a service centric industry, the main advantage of outsourcing hovers around human resources. Table 1 gives a synopsis of the Indian advantage and strengths, as well as possible opportune areas of outsourcing. This Table 1 also highlights the possible risks involved.

Table 1  
Benefits and Challenges/Risks of Global Offshore IT Outsourcing

Benefits	Challenges/Risks
<ul style="list-style-type: none"> <li>• Lower cost</li> <li>• Greater focus on the company's core competency</li> <li>• Reduced project timelines/time to complete/abstraction of delays</li> <li>• Increased IT department productivity</li> <li>• Competitive advantage</li> <li>• Internal customer satisfaction</li> <li>• Improved quality of services</li> <li>• Access to technological expertise</li> <li>• Gaining access to the world class society</li> <li>• Reducing investments in the non-core activities of the company</li> <li>• Reducing the risks by sharing the investments</li> </ul>	<ul style="list-style-type: none"> <li>• Managing communication</li> <li>• Cultural differences</li> <li>• Lack of internal processes for specifying work</li> <li>• Lack of internal customer management skills</li> <li>• Additional costs including vendor selection, transition cost, legal/contract costs amongst others</li> <li>• Service debasement</li> </ul>

In the following section, an overall view of offshore outsourcing to India is presented. This includes an introduction to IT outsourcing to India, the various models of outsourcing and the India advantage. In the next section, the value chain of the IT outsourcing in India and its trends are described. This second section throws light on the attractiveness of India versus its contenders. The final section explains the Human Resources Management (HRM) aspects of the IT outsourcing in India. It enlists the major functions of the HRM and the current bottlenecks in the industry. The paper concludes with a note on the possible improvements in the HRM arena, inferred from an analysis of primary data.

## OFFSHORE IT OUTSOURCING IN INDIA

In the last decade, a tremendous growth and change in e-business has been driving the software industry to move to countries like India and Ireland (Lane 2001). India has been the favourite destination for many companies around the globe for offshore outsourcing because it cuts application development and maintenance costs while delivering the highest quality work and improving productivity. Approaches have ranged from subcontracting portions of software development projects to third party companies or subsidiaries, to establishing truly virtual development teams (Werner, Dieter & Raimund 2001). With the rapid growth of outsourcing, several mix and match models of outsourcing are emerging. Companies can choose an on site arrangement, off site processing in the outsourcer's facility, near shore processing in a contiguous country, or an offshore model in which the processing is done in a country with a very low cost structure. The classification is elucidated in Table 2. Offshore outsourcing has been particularly a more suitable model for India. The literature suggests that offshore outsourcing in India is not only the most popular management practice, but also covers around 80 per cent of the offshore outsourcing market (Werner, et al. 2001, Elizabeth 2004).

Table 2  
Types of Outsourcing

	On site	Off site	Near shore	Offshore
Cost savings	Low	Moderately low	Moderately high	High
Location of outsourcing	Close	Moderately close	Moderately remote	Remote
Outsourcer hiring the customer' s personnel	Yes	No	No	No
Outsourcer hiring the customer' s equipment	Yes	No	No	No
Level of control on the outsourcer	Low	High	High	Low
Level of cost saving for the customer	High	Low	Moderate	High
Focus on the relationship with the outsourcer	High	Low	High	High

Offshore IT outsourcing is an important and emerging field in the area of information systems (Naureen, Currie, Weerakkody & Desai 2003). IT outsourcing is defined by Loh and Venkatraman (1992) as the significant contribution of external suppliers in the physical and/or human resources associated with the entire or specific component of the IT infrastructure in the user organisation. While Rajkumar and Mani (2001) define offshore outsourcing as the supplier of software, development is from another country than the firm that decides to outsource information systems. Smith, Mitra and Narasimhan (1996) define offshore outsourcing as software development that is done in other countries than those that have traditionally dominated the software development industry. Firms entering into offshore outsourcing aim primarily to gain access to highly skilled professionals at a reduced cost (Apte, Sobol, Hanaoka, Shimada, Saarinen, Salmela & Vepsalainen 1997).

Bill Gates' prediction in 1999 that India is likely to be the next software superpower has largely been realised (Ghemawat 2000). Terdiman and Karamouzis (2002) claim that today, India dominates 80– 90 per cent of the total of offshore development revenue worldwide and is expected to be the key leader in offshore outsourcing in the next five years. India' s outsourcing export revenue now exceeds \$7 billion, making it the country' s largest export, and the country is home to some half a million IT professionals (Nasscom 2003a). In the light of the present economic downturn, the primary motivation behind offshore outsourcing is cost reduction, especially lower per capita labour costs (Ravichandran & Ahmed 1993, Gopal & Krishnan 2002). Software development costs in India are estimated to be 30– 40 per cent lower than those in developed markets (Lacity & Hirschheim 1995). Evident is the fact that the vast wage differentials are prompting companies to move their labour intensive service jobs to countries with low labour costs: for instance, software developers, who cost \$60 an hour in the United States, the world' s biggest offshorer, cost only \$6 an hour in India, the biggest market for offshore services (Vivek, Diana & Jaana 2003). The other main factors fanning the potentials of IT outsourcing in India are – abundant English speaking talent pool, improving infrastructure, geographic location – leveraging time zone differences, galloping growth of the Indian economy and greater thrust of the government in supporting the IT sector. A detailed SWOT (Strength, Weakness, Opportunity and Threat) analysis of offshore IT outsourcing in India is given in Table 3.

Table 3  
SWOT Analysis of Offshore IT Outsourcing to India

Strengths	Opportunities
<ul style="list-style-type: none"> <li>• Access to a diverse set of skills and support for new technologies</li> <li>• Competitive costs</li> <li>• Widespread use of the English language</li> <li>• Mature, experienced and</li> </ul>	

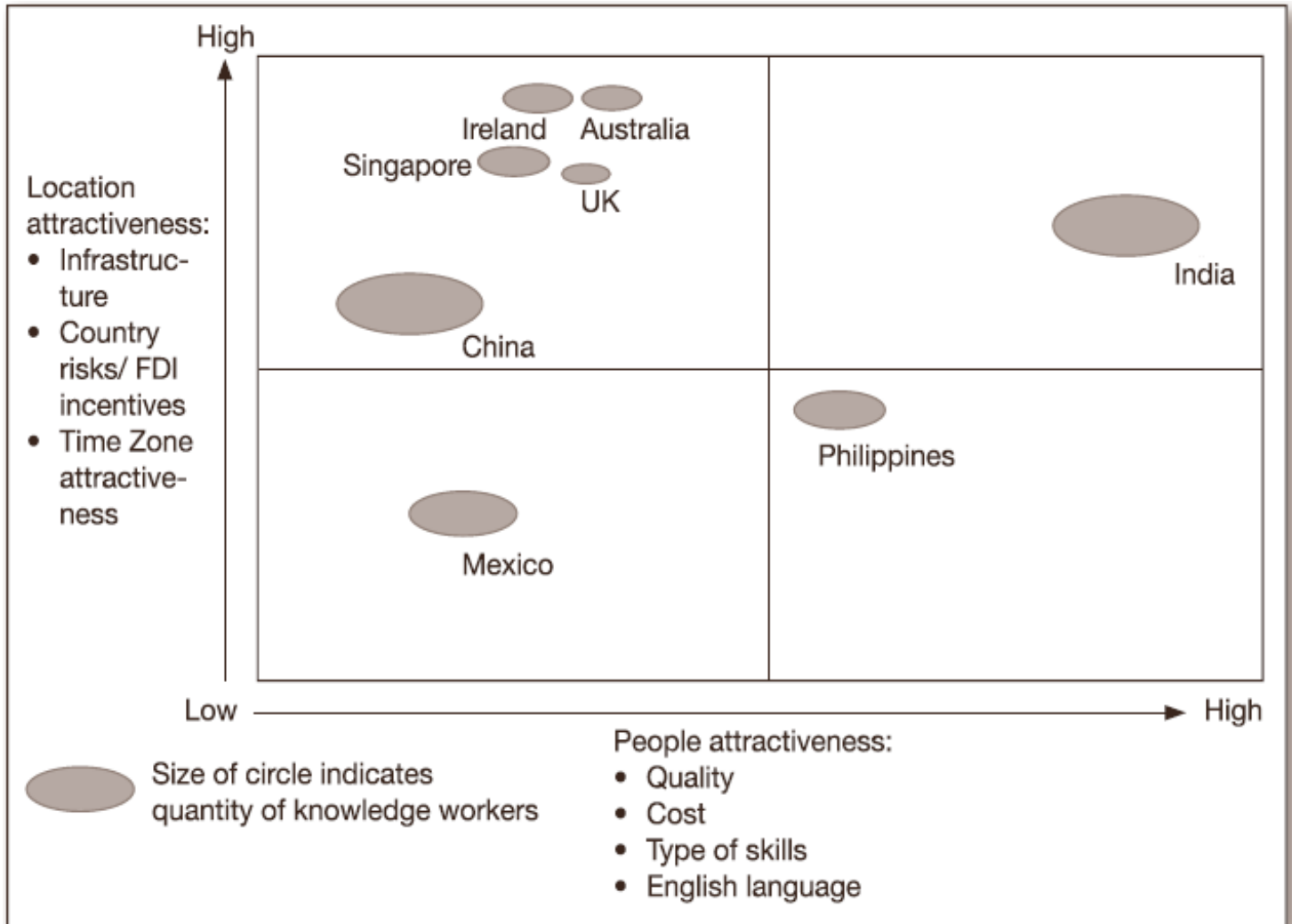
<ul style="list-style-type: none"> <li>stable vendors</li> <li>• Experience with remote engagement management</li> <li>• Ability to normalise demand for staffing</li> <li>• Accelerated delivery/reduced project timelines (leveraging time difference)</li> <li>• Highly trained workforce</li> <li>• Appreciation for software quality</li> <li>• Development disciplines</li> <li>• Government policies &amp; Taxation</li> </ul>	<ul style="list-style-type: none"> <li>• The offshore market expanding into the activities at the higher end of the value chain</li> </ul>
Weaknesses	Threats
<ul style="list-style-type: none"> <li>• High communication cost</li> <li>• Project management</li> <li>• Transition</li> <li>• Collaboration</li> <li>• Cultural issues</li> <li>• Continuing geo-political uncertainties</li> <li>• Sometimes intensive training needed for developers</li> </ul>	<ul style="list-style-type: none"> <li>• The rise of alternative geographies</li> <li>• Potential for backlash</li> <li>• Time zone difference</li> <li>• Building engagements too rapidly</li> <li>• Geographical distance between vendor and client</li> </ul>

The advent of Quality System Standards means that quality is the new catchphrase of the industry. By meeting and exceeding the quality of the service offering, quality has become a more attractive grasp than the lower cost benefits involved in outsourcing IT services to India. Forrester's research cited by Nasscom (2002) shows that almost two out of five Fortune 500 firms currently outsource some software requirements to India to gain the advantages of the high quality IT workforce and the low cost base. As mentioned earlier, the other grand advantages outsourcing has bestowed to the global business community is the strength to upgrade their core business while embracing the cutting edge technology. It is worth mentioning that as the market matures, opportunities based on the traditional rationale for outsourcing (i.e., economies of scale and scope), are diminishing in value. Larger firms now outsource for strategic reasons to leverage the business benefits of IT/IS, despite the emerging threats to the existing domination in the offshore IT (DiRomualdo & Gurbaxani 1998).

### Value Chain of IT Outsourcing in India

In spite of the emerging threats to the existing domination in the offshore IT outsourcing arena, there are huge opportunities for India to continue with the on going state of dominance. As depicted in Figure 1, India ranks high both in terms of people and location attractiveness and has a significant lead amongst its contenders. Apart from IT, Indian companies are contributing a variety of outsourced services varying from customer care, transcription, billing services and database marketing, to tax processing, transaction document management, Web sales/marketing, accounting, telesales/telemarketing, HR hiring and biotech research.

Figure 1  
India's Attractiveness Versus Its Contenders



Source: McKinsey Analysis (NAASCOM 2003b)

Value activities are the physically and technologically distinct activities that a firm performs and are the building blocks by which firms create products valuable to its buyers (Porter 1985). Today, large companies are outsourcing a greater range and depth of services than ever thought possible. Recent innovations (e.g., offering by Application Service Providers) are providing additional opportunities for the outsourcing of functions that previously they would never have contemplated (Kern, Willcocks & Lacity 2002, Currie 2003). At present, application development is the most frequently outsourced activity. Other functions commonly sent offshore include call centres, system administration/support and help desk. Many Indian vendors also offer management consulting services, infrastructure outsourcing services, help desk and desktop outsourcing services. The Indian IT-enabled services industry is set to move well beyond contact centre, low skilled work driven by the early success of the first movers (Nasscom 2003b). In this paper, the analysis of the value chain does not include all the links in the value chain, but provides an overview of the type of outsourcing contracts, and the services offered.

### Trends of Offshore IT Outsourcing in India

The offshore IT outsourcing in India mainly consists of Product Component Outsourcing, Process Component Outsourcing and Total Outsourcing. Product Component Outsourcing deals with offshoring a part of the project to the client. This could be particularly suitable when the client may not possess the technology or skills needed for the complete assignment/ project. Process Component Outsourcing means outsourcing a part of the function of one or more of their processes. Complete Outsourcing deals with outsourcing all the phases of the project including the activities like design, coding, and implementation. The next direction for the Indian vendors is to continue to move up the value chain by offering services related to Process Component outsourcing – architecture, design, and development and technology strategy services. Whereas in the past, Indian suppliers focused primarily on delivering application related services, they now offer everything

from applications support to infrastructure management (including data centre outsourcing, network management, data centre consolidation, strategic consulting, and help desk outsourcing) to various flavours of business process outsourcing (BPO) – or IT- enabled services, as they are typically termed. This shift implies that in addition to its overall growth, the market is also diversifying and expanding to encompass non application related services. The top tier Indian vendors exhibit flair to move up the value chain and offer high value consulting and project management skills in order to compete with US based IT services firms. In addition, the current trend of moving to the higher end of value chain involves activities like product design, adding value thorough research and development (R&D), predicting the future directions of technology. It makes business sense for Indian firms to move faster on the value chain ladder and get more involved in R and D, and product creation, brand management and strategic consulting, and providing more net centric and e-commerce type interactive services to customers (Naureen, et al. 2003). The other areas into which IT offshoring is likely to expand are legacy, and e-business application integration.

## HUMAN RESOURCES MANAGEMENT ISSUES

‘ People are our greatest asset’ is a mantra that companies have been chanting for years. But only a few companies have started putting Human Resources Management (HRM) systems in place that support this philosophy. There are a number of challenges in the Indian IT industry which require the serious attention of HR managers to ‘ find the right candidate’ and build a ‘ conducive work environment’ which will be beneficial for the employees, as well as the organisation. The IT industry is already under stress on account of persistent problems such as attrition, confidentiality, and loyalty. Other problems are managing people, motivation to adopt new technology changes, recruitment and training, performance management, development, and compensation management. With these challenges, it is timely for organisations to rethink the ways they manage their people. Managing HR in the knowledge based industry is a significant challenge for HR managers as it involves a multi task responsibility. In the present scenario, HR managers perform a variety of responsibilities. Earlier their role was confined to administrative functions like managing manpower requirements and maintaining rolls for the organisation. Now it is more strategic as per the demands of the industry.

### Managing People

In view of the industry dynamics, in the current times, there is a greater demand for knowledge workers. Resumes abound, yet companies still fervently search for the people who can make a difference to the business. Often talented professionals enjoy high bargaining power due to their knowledge and skills in hand. The attitude is different for those who are taking up responsibilities at a lesser age and experience. These factors have resulted in the clear shift in approach to individualised career management from organisation career commitment.

### Motivating the Workforce

As the competition is growing rapidly in the global IT market, a technological edge supported by a talent pool has become a crucial factor for survival in the market. Naturally, as a result every organisation gives top priority to technology advancement programs. HR managers are now performing the role of motivators for their knowledge workers to adopt new changes.

### Competency Development

Human capital is the real asset for any organisation, and this makes the HR role important in recruiting, managing, and retaining the best. The HR department has a clear role in this process and determines the success tempo of any organisation. An urgent priority for most of the organisations is to have an innovative and competent HR pool; sound in HR management practices with strong business knowledge.

## Recruitment and Training

Recruitment has become a major function from an imperative sub system in HR, particularly in the IT industry. HR managers play a vital role in creating assets for the organisation in the form of quality manpower. Attracting new talent also is a top priority for software companies, but less so for smaller companies. Another challenge for HR managers is to put systems in place to make the people a perfect fit for the job. Skill redundancy is fast in the IT industry. To overcome this problem, organisations give the utmost priority to training and skill enhancement programs on a continuous basis. Many IT companies are providing technical training to the employees on a quarterly basis. These trainings are quite useful also in terms of providing security to the employees.

## The Trust Factor

Low levels of trust inhibit tacit knowledge sharing in the knowledge based industry. It is essential that the IT industry takes more initiatives to improve the security levels of the employees.

## Work life Balance Factor

Another dimension to the challenges faced by IT Industry is the growing pace of talent acquisition. This aspect creates with it the challenge of a smoother assimilation and the cultural binding of the new comers into the organisation fold. The pressure of delivering the best of quality services in a reduced time frame calls for ensuring that employees maintain a work life balance.

## Attrition/Retention of the Talent Pool

One of the toughest challenges for the HR managers in the IT industry is to deal with the prevalent high attrition levels. Though there is an adequate supply of qualified staff at entry level, there are huge gaps in the middle and senior level management in the industry. Further, the salary growth plan for each employee is not well defined. This situation has resulted in increased levels of poaching and attrition between organisations. The industry average attrition rate is 30– 35 per cent and could range up to 60 per cent.

## Bridging the Demand Supply Gap

HR managers have to bridge the gap between the demand and supply of professionals. They have to maintain consistency in performance and have to keep the motivation levels of employees high, despite the monotonous nature of work. The same also leads to recurring training costs. Inconsistent performance directly affects revenues. Dwindling motivation levels lead to a loss of interest in the job and a higher number of errors.

## RESULTS

The authors surveyed eleven software leaders in India about the current challenges in the industry and the retention initiatives in their companies. For this survey, senior managers in HR and other functionalities, and software engineers were interviewed for their opinions. More than half of the executives surveyed expressed that the major challenges for the HR managers are recruiting the right people and retaining them for longer times. The next most important HR concerns listed were meeting the demand, supply requirements in the industry, expectations management of the resources and other stakeholders, efficiency in processes and HR policies. When asked to rank the best motivating factors, the most frequently expressed priority was the nature of the job and job satisfaction. The next most important aspects were salary and monetary benefits, good peer group, positive, motivating and interactive environment and company processes. More interestingly, working for the right boss and company was very appealing to the authors.

The motivating factors and retention initiatives taken by different companies were very thought provoking. The most frequently mentioned initiatives were those related to salary and monetary benefits. Good salaries, increments, performance based pay, and ESOPs are some of the aspects mentioned. Transparency in the system was another major point mentioned by the employees. The

requirement for recognising loyalty to the company and hard work was highlighted. Flexible work culture and freedom to shift to a more interesting work area were some of the other aspects. The Vice President of an MNC mentioned ' expectations matching using the Key Responsibility Areas (KRAs)' was one of the major retention initiatives in his company.

When asked for the major reasons for attrition in the industry, the response was diverse. Indeed, there were a breadth of responses with more emphasis on the monetary aspects, nature of job and administrative policies. Those surveyed felt that the high demand in the industry is augmenting job hopping. Also, the wide difference in the salaries offered by the companies is another reason for staff mobility. Some of the other reasons mentioned were lack of expectations management, counselling and mentoring, lack of professionalism in immediate supervisor as well as Head of the relevant department or group, and lack of differentiation between performers and non performers. One of the senior managers in HR opined that the current supply of ready to use manpower is lower than the demand, and the lead time in getting productive people is a major limitation in recruitment, which inturn leads to more attrition. Another reason mentioned was bad HR / organisational values and lack of ethics.

## CONCLUSION

The Indian IT industry is facing considerable challenges. In order to maintain India' s competitive advantage of technically skilled knowledge workers with the right mix of technical, business and functional skills, the workforce needs to increase by at least 10 fold to 2.2 million knowledge workers in IT software and services related areas by 2008 (Nasscom 2003a). To cope with such complexities, HRM strategy must have at its centre a focus on people needs and requirements. The IT industry, like any other service industry, is people driven. At present, the emphasis should be more on improving the personalities and processes and help each individual come out as a winner. HR managers have to continuously evolve career paths, motivate their employees and create a culture of oneness, which will also act as retention tools. Since the recurring recruitment costs are detrimental, it is requisite that great emphasis is to be levied on starting specialised training institutes to guide employees to identify the right people at the right time who can keep pace with the unique work patterns in this industry. The managers of IT companies should take more initiatives to improve employee retention by taking suitable initiatives. However, it is also to be understood that staff turnover is as unpredictable as technological uncertainty. However, with suitable HR strategies the measures of the attrition percentage could be kept low giving addition organisational benefit and inturn, to the Indian IT outsourcing advantage.

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