

Offshoring Work: Business Hype or the Onset of Fundamental Transformation?

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This paper reports the findings from the Offshoring Research Network (ORN), which studies the offshoring of administrative and technical work to low-cost countries. Initial data suggest that offshoring is still at an early stage but growing rapidly. However, as the practice of offshoring becomes more widely adopted it is likely to fundamentally change the way companies in the industrialised high-cost economies organise to compete globally. The picture that emerges is that adoption of offshoring practices largely follows an opportunistic bottom-up, sequential process. During the early phase companies report cost savings and achieved service levels far exceeding initial expectations. This paper presents the case that offshoring may actually foreshadow a much more fundamental transformation involving several co-evolving forces including the commoditisation of organisational processes, the emergence of hybrid organisational forms, the competition of developing countries for offshoring jobs, and the globalisation of sourcing and management of human capital.

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Introduction

Since the burst of the dotcom bubble and the economic recession that followed, companies in most industries have had to operate in a competitive environment. This has led many companies to focus on cost-cutting strategies such as offshoring - locating activity to a wholly owned company or independent service provider in another country (usually low cost).

Because such cost reduction strategies are highly imitable they cannot be a source of sustained competitive advantage.¹ The rapid diffusion of offshoring is also creating upward pressures on labour costs in developing countries, diminishing the returns from labour arbitrage. Therefore, beyond taking out costs, companies can be expected to evolve towards offshoring strategies that create value and enable innovation and growth. Furthermore, developing economies are beginning to recognise the limits to labour arbitrage and are increasingly expanding investments in human capital, especially engineering, mathematics and computer sciences as a way of attracting higher-level technical jobs and thus creating a talent-based advantage.²

Industry has practised offshoring for the past 50 years. For the first four of those decades it primarily affected manufacturing work and blue-collar jobs. The drivers behind the strategy of relocating manufacturing facilities were to take out costs by shifting manufacturing or assembly operations to low-wage countries, thereby enabling firms from high-cost economies to align their cost structures with their global competitors; and gain greater access to emerging markets by establishing a presence there. Since the late 1990s the emergence of offshoring business and IT processes anywhere in the world has been mediated by advances in information and communication technologies (ICTs) and the development of stable, secure and high-speed data transmission systems.

In response to the lack of rigorous and robust firm-level data on this emerging business practice, the Center for International Business Education and Research (CIBER) at Duke University and Booz Allen Hamilton launched the Offshoring Research Network (ORN), a multi-year international study on offshoring administrative and technical work. Initial findings suggest that the offshoring of administrative and technical work constitutes an early but fast-growing trend that is likely to fundamentally change the way companies in the industrialised high-cost economies organise to compete globally. Some early adopters of offshoring practices are learning to locate, source and manage human capital anywhere in the world. They are discovering new opportunities for competitive advantage by developing global value creation and innovation strategies, and new organisational forms for executing these strategies. Consistent with the Resource-Based View of the firm, leading offshoring companies are expected to develop dynamic capabilities necessary for exploring and exploiting higher value-adding offshoring practices.³

Some early adopters of offshoring practices are learning to locate, source and manage human capital anywhere in the world

A review of the existing literature reveals that IT outsourcing, both domestic and offshore, and non-IT domestic outsourcing have been discussed for some time.⁴ However, offshore outsourcing and captive offshoring of business processes (with the exception of contact centres such as help desks and call centres), engineering services and product development (innovation processes) have received comparatively little attention.⁵ This paper focuses on offshoring, whether it is captive or outsourced and whether it is IT-related or concerns any other business process or function. The more widely practised and understood strategies of offshoring of manufacturing activities involving blue-collar workers, or domestic outsourcing of technical and administrative functions are the object of this paper.

The paper is divided into three main sections. The first reviews the events and dynamics that have shaped the evolution of offshoring, from its inception in the late 1970s and early 1980s, to the adoption of the new practice by pioneering companies in the early 1990s, and its increasing diffusion since 2000. The second section uses original ORN firm-level survey data to provide insight on the practice of offshoring and addresses such questions as what are strategic drivers that lead companies to adopt offshoring? What are the internal and external risks that companies perceive? What particular functions do companies offshore, using what service delivery models and in what regions? And what are the outcomes of offshoring in terms of cost savings and service levels? The third section addresses the potential for offshoring practices to transform, in a fundamental way, how companies organise to compete globally.

The evolution of the offshoring industry

The antecedents that enabled the emergence of offshoring as a new managerial practice are discussed in several reports.⁶ Some of the earliest functions to be offshored were IT applications: the imperative of updating computer programs by the year 2000 to avoid the so-called Millennium

Bug led some companies to offshore certain programming and coding tasks, mainly in India. Some of these companies discovered a seemingly limitless supply of well-trained English-speaking IT specialists who could reliably fix and design IT applications at significantly lower costs. The growth of offshoring IT and other business process applications has been closely tied to technological advances in broadband communications and the internet. Other factors include the ample supply of technically-trained workers in countries such as India; infrastructure investments and improved business climate in developing countries; the standardisation of IT processes and communication protocols that lead to increased interoperability of systems; the liberalisation of developing economies; and the transnational networks set up by immigrants in the US.

The history of the offshoring industry most likely begins in India in 1979, when American Express outsourced its accounts receivable processes to Tata Consultancy Services (TCS). Created in Mumbai in 1968, this provider of business services had just opened its first international office in New York. At that time, major Indian IT companies developed software programs for US companies on site, in the US, rather than from India. A second major milestone, in the mid-1980s, involves Texas Instruments and Motorola, the first multinational companies to locate captive technology centres in Bangalore.

These early experiments were rapidly followed by advances in communication infrastructures, the relaxation of tariffs and export controls by the Indian government and major infrastructure investments especially in Bangalore. This enabled Indian service providers to service US companies from India. Early adopters of offshoring practices in India include Dun & Bradstreet, British Airways, Citibank, Hewlett-Packard and Dell. During the 1990s, General Electric (GE) also significantly impacted the emergence of business processes offshoring (BPO) (see Exhibit 1). In 1990,

Exhibit 1. A Short History of Offshoring at General Electric

1990	Medical Division	Joint venture with Wipro to develop and market medical equipment.
1995	IT	Outsourcing of software development and maintenance to India.
1997	Back office	GECIS, captive shared services centre launched in India.
1999	Call Center	1 st GE international call centre launched in India.
COMPANYWIDE INITIATIVE: DIGITISATION OF BUSINESS PROCESSES		
2000	R&D Back office Asia Back office Americas	Jack Welch Technology Center, 1 st and largest GE R&D centre launched outside the US (in Bangalore) GECIS Asia, business processes captive centre in China. GECIS Americas, business processes captive centre in Mexico.
2002	Back office Hungary	GECIS Hungary, business processes captive centre launched in Hungary to serve the European market.
2004	Outsourcing Backshoring	Oak Hill Capital Partners and General Atlantic acquire controlling interest of 60 per cent in GECIS. Business processes remain unchanged. GE brings back its Indian call centre to the US.

GE Medical Division formed a joint venture with Wipro to develop and market medical equipment. Sales did not take off as anticipated but GE did discover a source of low-cost talented programmers and engineers. GE's experience with offshoring not only acted as a catalyst for diffusing offshoring practices in the US, it also had a strong influence on Indian service providers. Many Indian managers recognised that early investments by GE legitimised their ability to deliver high-quality service at low cost. Moreover, the culture of costcutting and efficiency so characteristic of Jack Welch, GE's CEO for more than 20 years, taught them business skills that they leveraged for competing globally.

With the burst of the dotcom bubble in 2001/2002 and the economic recession that followed, companies started to explore cost-cutting strategies. A few of these (often the same that had offshored Year 2000 computer recoding), realised that they could take out costs by offshoring non-core activities to low-cost countries. India remained an early beneficiary because of its skilled English-speaking IT programmers, software developers and technicians. Initial IT offshoring implementations provided significant cost savings to companies. This attracted more companies to initiate IT offshoring strategies and imitators began to follow. The experience of early adopters, such as GE, with offshoring IT led some companies to realise that India had a large pool of talented people able to undertake not just software programming but also business processes in finance, accounting, marketing, customer service and many other back office tasks. Some companies also started to offshore R&D-related activities to India (e.g. Timken opened its second biggest R&D centre in the world, General Motors founded an automotive research lab and Intel opened a development centre). The availability and access to highly-qualified engineers, software developers and scientists provided these companies with opportunities to initiate offshoring-enabled innovation strategies such as product design, software applications, engineering services, research and development at significantly lower costs, and speeded up time to market.

Service providers in India are now facing increased competition because of new entrants in this highly profitable business. Other developing countries in Asia and eastern Europe see the development of offshoring services in their countries as a strategy of national development. Although India still has 70 per cent of the offshoring market, countries such as Brazil, the Philippines, Malaysia, China, Russia, Hungary, the Czech Republic and Israel are aggressively competing for offshoring work. The rapid growth of India as a preferred offshore location has given rise to several problems that are detracting from its earlier advantages. Bangalore in particular is in a critical situation: its popularity and rapid development has been accompanied by average annual wage increases of 10–15 per cent (26 per cent in 2006), high employee turnover rates (often exceeding 120 per cent), rising property prices, lack of housing and infrastructure problems such as poor roads, lack of hotels, unreliable sources of electric power and an outdated airport system. Indian service providers also face a threat from larger western competitors setting up business units in the country. India's relative loss of market share is the most salient for offshoring initiatives originated from western European countries. With the opening of eastern European economies and the entry of several of them into the European Union, western European companies are increasingly favouring their eastern neighbours as offshore locations.

Western European companies are increasingly favouring their eastern neighbours as offshore locations

Although US companies were early to offshore IT and business process applications; the offshoring phenomenon is not restricted to the US. Over the past few years, a growing number of European companies have initiated offshoring strategies. A study by Technology Partners International suggests that western European companies are accelerating their offshoring activities.⁷ According to McKinsey, US dominates the offshoring market with a 70 per cent share of the total value of contracts. However, Technology Partners International estimates that in 2004 the number of offshoring contracts by European companies (including subsidiaries of US companies in Europe) accounted for 48 per cent of all contracts (against 46 per cent for US companies).⁸ UK companies accounted for 20 per cent of all contracts and German companies for 12.5 per cent, up from 4 per cent in 2003.

The long-term implications of offshoring business processes, IT applications and technical work are not clear for Europe. EU companies face several challenges. The first is a linguistic barrier that

may make it more difficult for non-English-speaking companies to find countries with adequate language capabilities for offshoring; the pool of qualified workers available is much smaller than the pool of low-cost English-speaking populations worldwide. This is less of a problem for multinational companies where internal communication is often conducted in English. Moreover, the linguistic requirements are likely to be much more stringent for offshoring functions involving customer contact, such as call centres and helpdesks, than for back office and technical work. The second major challenge for EU companies involves overcoming political and institutional barriers resulting from strong society/worker social compacts that characterise most, though not all, national labour markets in Europe.

In summary, the emergence and evolution of the offshoring industry can be seen as an outcome of three factors types of. First, the demand side comprises such factors as Y2K and the imperative of fixing software codes; and the bursting of the dotcom bubble with the resulting economic recession, reduced pricing power and the need to take out costs to maintain margins. Second, supply factors involve the seemingly endless availability of low-cost qualified labour, and national investments in education and training made by governments and companies in developing economies. Third, advances in information and communication technologies (ICTs) and infrastructure investments by host countries served to mediate and facilitate the rapid growth of the offshoring industry.

Insight from ORN study

The overall objective of ORN is to track every six months and over several years the adoption of offshoring administrative and technical functions, from pioneering early adopters to the majority adopters. Surveying companies every six months is central to building the first firm-level database on when each company started offshoring what particular business function, where it was offshored, using what service delivery model and why. Detailed data is also collected on various aspects of firm experience with offshoring including perceived risks, expected and achieved benefits and future plans. The structure and main topics of the online survey are outlined in Figure 1. More information on the methodology is provided in the Appendix.

Using data from the first ORN biannual survey, this section explores some key findings based on actual practices of US companies with offshoring business processes, back office functions, IT applications, contact centres, engineering and research. In addition to quantitative analyses of the survey data, the paper integrates observations from ORN-specific company case studies and from participants' feedback during closed debriefing meetings following the administration of the survey. It is argued that offshoring strategies largely emerge as a result of opportunistic bottom-up random experiments that evolve following trial and error and learning-by-doing processes.

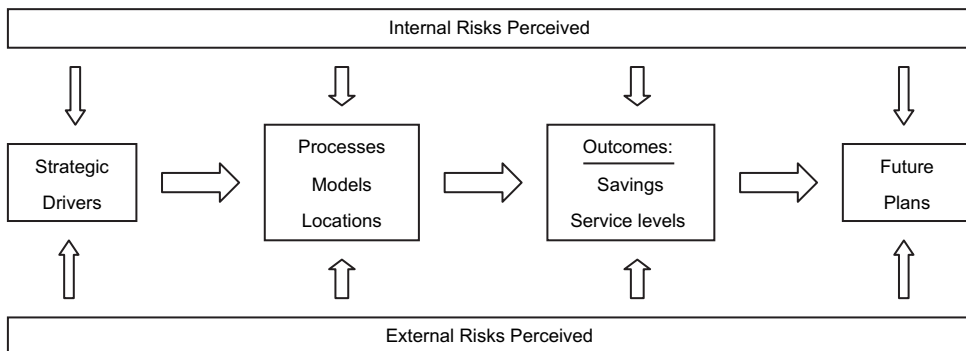


Figure 1. ORN Survey Design

Although it is organisationally complex to implement, company self-reports suggest that cost savings exceed expectations and targeted service levels are achieved in a timely manner (Exhibit 2).

Exhibit 2. Key Findings

Bottom-Up	Absence of top-down corporate strategies guiding implementation of offshoring practices at the bottom-up level. Random experiments, improvisation, bottom-up diffusion.
Sequential	Learning-by-doing processes. From a few specific and simple experimental implementations to more diversified and complex business processes.
Complex	Difficulty of overcoming internal resistance, managing remote teams, managing cultural fit, containing offshore employee turnover and specifying processes.
Profitable	Actual cost savings exceed expectations and targeted service levels are achieved ahead of plans. Most cost savings accounted for by labour arbitrage. No process redesign.
Growing	Offshoring is expected to grow in scale and scope, number of functions offshored, complexity of processes and diversity of locations.

Balancing risks and benefits

The number one strategic driver of offshoring cited by 93 per cent of participants to the ORN survey is to take out costs (see Table 1). Closely related is the need to respond to competitive pressure (69 per cent). The desire to increase quality of service levels was ranked as the third (56 per cent) most important driver for offshoring. Access to qualified personnel is also ranked very high (55 per cent). Low-cost skilled human resources enable companies to offer a range of people-intensive services that are not economically feasible in the US, but which improve the value proposition for their customers. Offshoring also allows companies to offer unique services highly valued by customers such as 24/7 customer support, or to speed the product development process with follow-the-sun work schedules. Companies discover that they are able to recruit highly qualified personnel in low-cost countries who are motivated and ready to take on low-level jobs shunned by most US workers. Similarly, the growing shortage of postgraduate US scientists and engineers is a driver for offshoring such tasks.

Table 2 summarises the potential risks that companies associate with offshoring. Achieving expected quality of service is the highest cited risk, with 61 per cent of participants rating it high or very high. Interestingly, improving service levels is also among the most important drivers of

Table 1. Strategic Drivers of Offshoring

Strategic Drivers	% of respondents citing driver as important
Taking out cost	93%
Competitive pressure	69%
Improving service levels	56%
Accessing qualified personnel	55%
Changing rules of the game	41%
Industry practice	37%
Business process redesign	35%
Access to new markets	33%
Enhancing system redundancy	27%

% of respondents who answered 4 or 5, on 5 points Likert scale, to proposed strategic drivers of offshoring.

offshoring for firms that are already offshoring. In spite of experiencing success with achieving and even exceeding expected service levels, companies continue to associate risks with quality of service whether in their captive implementations or when provided by third-party service providers. Another major perceived risk is managing cultural fit (54 per cent). Follow-up debriefing workshops and case studies indicate that cultural fit can be a source of internal resistance to offshoring because it is not perceived to fit the corporate culture and values. Cultural issues also arise from the complexity involved in learning how to manage and collaborate with personnel from another culture. Coping with cultural differences seems to be less of an issue for IT, finance or accounting implementations than for functions that require soft people skills or more intensive interactions with US employees or customers, such as call centres and technical support activities. Also, cultural challenges appear to be higher with offshoring to China than to India or the Philippines. Follow-up interviews and case studies suggest that an extensive, consistent and honest communication plan targeted towards employees in the US, managers, executives, internal clients, offshore employees and customers is a critical factor for overcoming cultural challenges in the implementation of an offshoring strategy. Surprisingly, loss of intellectual property, political instability, political backlash and disaster recovery are the lowest-rated risks.

Overall there are no major differences in the risks perceived by companies that are not yet offshoring compared with those that have experience with offshoring. Two exceptions are worth noting. First, employee turnover (at offshore location) is considered an important risk by 52 per cent of responding companies with offshoring experience (one of the highest risks) compared with 25 per cent of companies that are considering but have not yet offshored any function (the lowest perceived risk). This suggests that the turnover rates actually being experienced by companies at offshore locations tend to be underestimated at the outset and is only discovered through a process of learning by doing. The second major difference concerns the potential loss of control. Companies that have no offshoring experience rate this as the highest risk (65 per cent), together with service quality, whereas only 46 per cent of companies with offshoring experience are concerned with this issue. Clearly the concern with loss of control diminishes as companies learn

Table 2. Perceived Risks of Offshoring

Risks Perceived	% of respondents citing risk as important
Poor service quality	61%
Lack of cultural fit	54%
Loss of control	51%
Lack of client acceptance	49%
Lack of data security	46%
Weakening employee morale	45%
Employee turnover	44%
in offshore service center	
Operational inefficiency	41%
Infrastructure instability	40%
in host country	
Intellectual property loss	39%
Political instability	39%
in host country	
Political backlash	35%
Disaster recovery	26%

% of respondents who answered 4 or 5, on 5 points Likert scale, to proposed risks of offshoring.

how to manage key offshoring processes whether at captive centres or at third-party service providers.

Client acceptance of an offshoring implementation is rated as a high risk by 67 per cent of companies that have been offshoring for less than 18 months and only 44 per cent by the more experienced companies. The concern with client acceptance is especially salient when offshoring directly impacts the way customers interact with the company, such as with call centres and other technical support services. However, follow-up interviews and discussions during debriefing workshops indicate that customer reluctance had often more to do with a priori beliefs about the potential quality of services delivered by offshore implementations than with the actual quality of the service they received. Once again, respondents suggest that a good communication plan to customers is the key for overcoming this initial resistance. The risk associated with leakage or loss of intellectual property is rated important by 56 per cent of companies with less than 18 months' offshoring experience (one of their highest concerns) compared with 32 per cent for more experienced companies (one of their lowest concerns). Over time, companies tend to increase the number of processes offshored. However, they are careful not to offshore their "family jewels". Furthermore, as they get more experienced with offshoring they develop a higher confidence in their capabilities to protect intellectual property even at third-party service providers.

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Offshored functions, selected locations and service delivery models

Offshored functions

Some 70 per cent of participants that were already offshoring at the time of the survey had been offshoring for 18 months or more, making them a fairly experienced group, with an average of three different functional implementations offshored per company. For a significant number of respondents the imperative of meeting Y2K deadlines for recoding IT applications was the triggering experience that paved the way for other business processes to be located offshore. As of the latest survey, IT remains the most frequently offshored function, with 66 per cent of participants offshoring one or more IT processes associated (see Table 3). However IT represents only 20 per cent of all

Table 3. Functions Offshored – Current Landscape and Expected Evolution

Functions	% of companies that offshore the function	% of implementations in the total sample	Expected growth rate in # implementations (next 18 to 36 months)
IT	66%	20%	52%
Finance/Accounting	60%	19%	43%
Contact Centres	54%	17%	48%
Engineering Services	44%	14%	55%
Research	32%	10%	81%
Human Resources	24%	7%	75%
Procurement	24%	7%	42%
Other	18%	6%	na

implementations in the sample. Finance and accounting are the next most common functions to be offshored, with 60 per cent of companies offshoring at least one implementation in these two areas.

Companies that were already offshoring at the time of the survey were asked to indicate their offshoring plans 18 to 36 months following the survey. The highest increase involves research and development, with an 81 per cent growth rate (see Table 3). Engineering services involve a planned increase of 55 per cent. IT implementations are expected to grow at a somewhat lower rate of 52 per cent, albeit from a higher base. Similarly, the very high (75 per cent) plans for offshoring HR processes relates to the extremely low number of existing implementations. Averaging future plans across all functions included in the survey yields an average projected increase of 55 per cent in the number of offshored functional implementations.

Respondents were also asked to indicate the date when their company first offshored each functional implementation (IT, business process, contact centre, engineering/product development or research implementations). Combining these data with company offshoring experience (number of months since first offshoring implementation) reveals a dominant pattern in the sequence of offshoring implementations by function (see Figure 2). The pattern is consistent with a learning-by-doing diffusion process. The most common first offshoring implementation involves an IT application or process followed by finance and accounting applications or processes. These are followed approximately 12 months later by functions such as call centres and technical support centres. It seems that successful experiences with offshoring IT, finance and accounting, and contact centres in the first 18 months set the stage for experimenting with offshoring more technical and high-end functions such as engineering services, product design and research and development. This second wave of implementations is then followed by more complex processes such as HR and procurement. This latter observation involves a projection of future offshoring plans based on survey responses and follow-up interviews.

The pressures to meet Y2K deadlines may partially explain why many companies began their offshoring with IT applications. Finance and accounting processes are also offshored early on. Indeed, many companies that initiated an offshoring implementation in the three months preceding the survey selected a finance or accounting process for their first offshoring experiment. Altogether, IT, finance and accounting were most often cited by companies that were not yet offshoring as the first functions they intend to experiment with once they initiate their offshoring strategy. These applications involve repetitive, standardised and low knowledge-based processes that are already in

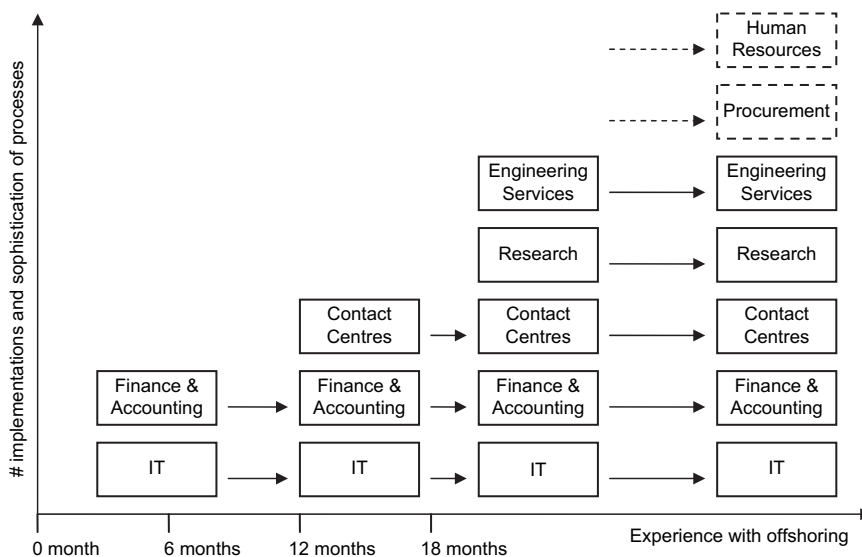


Figure 2. The Sequential Learning-by-Doing Process of Offshoring

digital form in most companies and can therefore be performed easily anywhere in the world (e.g. invoicing, accounts receivable, credit collection, cash applications etc). Success with these applications can be assumed to lead to offshoring experiments involving processes that require the soft skills necessary for managing cultural fit. These functions also involve the ability to apply tacit knowledge, handling frequent exceptions typical of customers or internal clients, such as call centres, help desk activities and product support services. These functions are more difficult to implement because they involve diverse interactions between onshore and offshore resources, managing cultural differences, coping with language and accent issues, working across different time zones, team building across geographies and managing and co-ordinating remote locations. The data support a progressive process of discovery and learning-by-doing to source, locate and manage human capital and capabilities anywhere in the world through offshoring. As companies build trust in the quality of offshore workers and in their own organisational capabilities for offshoring, this sets the stage for offshoring higher-end activities such as R&D and engineering services (see Figure 2).

This general sequence of implementing offshore functions does not fit every company. Company-specific factors are important in explaining variations. For example, a technology-intensive company with significant engineering work is likely to initiate offshoring engineering services earlier than low-tech companies. Similarly, pharmaceutical companies may initiate offshoring of research-related tasks to low-cost countries early on, as a strategy to extend R&D budgets. Although the sequence of offshoring may vary from case to case, the learning-by-doing process by which companies progressively develop their expertise is a very common observation in the cases studied so far. The common representation of a company moving an entire department offshore does not correspond to the data and offshoring accounts that can be supported by the ORN study. Such outlier cases have been documented, but the overall data analyses support an opportunistic approach that starts with small-scale experiments progressively expanding as companies gain organisational capabilities and confidence in offshoring. Moreover, the learning process is not only reflected in the number of different functions offshored, it characterises the evolution of the specific tasks offshored as well, from more simple to more complex and value-added activities.

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Another striking observation is the lack of corporate-wide offshoring strategies. The data suggest that most companies have not articulated top-down strategies for planning and guiding the adoption of offshoring. In most companies the process starts with improvisations and seemingly random offshoring experiments at the bottom-up level. As these multiply and amplify their offshoring experiments, and diversify the type of processes and the complexity of the tasks offshored, they drive the diffusion of offshoring practices bottom-up. From random and dispersed initiatives offshoring is however expected to evolve into a corporate-wide strategy.

Selected locations

Not surprisingly, the survey confirms that India is by far the most preferred location for business process and IT applications offshoring (see Table 4). Some 69 per cent of surveyed implementations are located in India and 80 per cent of surveyed companies already offshoring have at least one implementation in that country. Adding the 7 per cent market share of China, the 4 per cent share of the Philippines and the 7 per cent of “Other Asian countries” (Indonesia, Malaysia, Vietnam etc) reveals that Asia accounts for 87 per cent of offshoring implementations in the sample. Eastern Europe is a more popular destination for European companies and accounts for only 3 per cent of US offshoring implementations. The rest goes to Mexico, Latin America and Canada.

India remains the preferred country for locating offshore activities over the next 18 to 36 months as well: 66 per cent of new implementations are planned to be located in India. However, the survey

Table 4. Locations of Offshoring

Locations	% of existing implementations	% of new implementations (next 18 to 36 months)
India	69%	66%
China	7%	7%
Other Asia	7%	16%
Latin America	6%	1%
The Philippines	4%	3%
Canada/Mexico	4%	1%
Eastern Europe	3%	6%

also reveals a significant increase in the number of companies that choose “Other Asian countries” for their new implementations. These countries are expected to garner 16 per cent of new implementations, up from 7 per cent. In addition, US companies are increasingly planning to locate offshore implementations in eastern European (from 3 per cent to 6 per cent). Conversely, Latin America, Canada and Mexico are losing their location appeal as US companies discover the opportunities offered by Asia.

Service delivery models

Offshoring relies on one of two main service delivery models. The captive model refers to an offshore centre that is owned and operated by the offshoring company. The outsourced model refers to a model that uses a third-party service provider. The survey reveals that 35 per cent of implementations involve the captive model while 65 per cent use third-party service providers.

The choice of service delivery model is highly correlated with the type of function offshored (see Figure 3). IT and contact centres rely on the outsourced third-party service delivery model (90 per cent and 89 per cent respectively). Conversely, 69 per cent of finance and accounting offshore implementations are located in captive centres. Surprisingly, 62 per cent of offshore processes in engineering services and 53 per cent of research implementations, which may be considered relatively critical activities, are outsourced to third-party service providers. This suggests that companies have developed organisational capabilities for managing offshore outsourcing relationship and are sufficiently confident in the capacity of service providers in low- cost countries to provide quality work as well as safeguard critical knowledge.

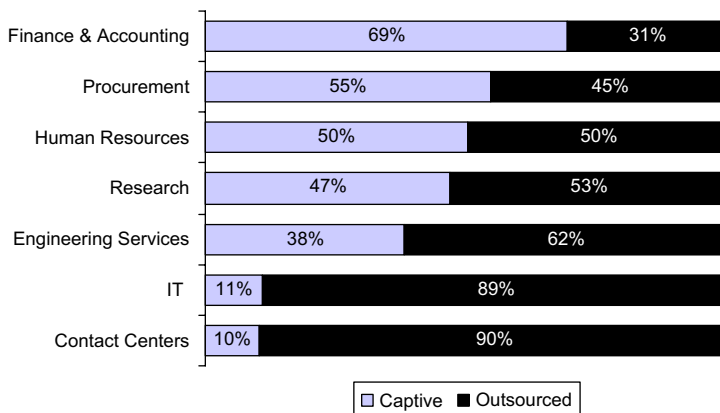


Figure 3. Percentage of Captive and Outsourced Implementations per Function

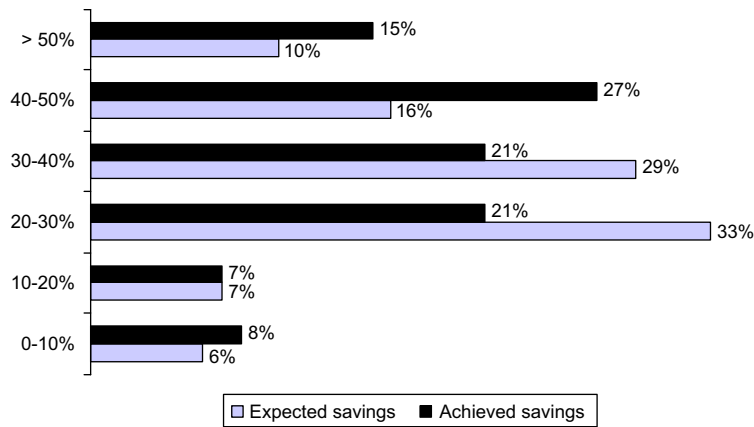


Figure 4. Percentage of Implementations with Expected and Achieved Ranges of Savings

Outcomes of offshoring: cost savings and service levels

Cost savings and service levels are the main strategic drivers of offshoring. Figure 4 compares metrics for expected and achieved savings. The findings suggest that actual total cost reductions (off baseline costs) exceed expected savings prior to initiating offshoring of a particular function. The median range for expected savings is 20–30 per cent and a total of 62 per cent surveyed implementations had a target for savings between 20 per cent and 40 per cent. The median range for achieved savings is higher (30–40 per cent). Moreover, 27 per cent of implementations enabled companies to achieve between 40 and 50 per cent of savings, and 15 per cent of offshore implementations led to savings exceeding 50 per cent, higher than the percentage of implementations for which such savings were expected. On average, 75 per cent of implementations met or exceeded their savings targets.

Respondents also report that targeted operational service levels are usually achieved in a very timely manner, with 74 per cent of offshoring implementations meeting expectations within 12 months of implementation. In only 16 per cent of cases companies report that they required more than one year to achieve targeted service levels. The percentage of implementations that required more than 12 months is highest for research activities and engineering services. Nine per cent of implementations have yet to achieve service levels. Unfortunately, it is not possible to distinguish between cases where companies are late in achieving expectations and cases where it is too early to tell. When companies are asked about their expectations for changes in service levels over the next 18 months, 69 per cent claim to expect service levels to continue to increase (Figure 5).

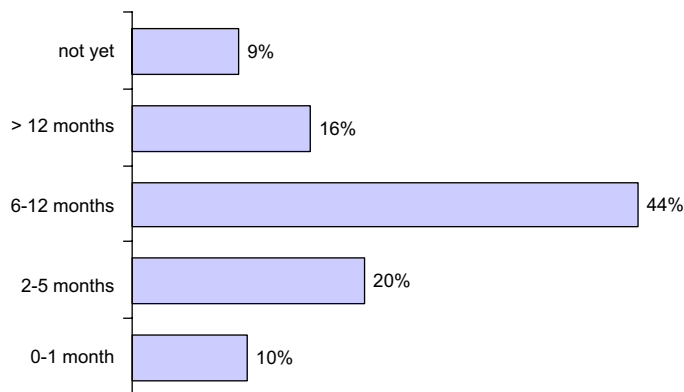


Figure 5. Time to Achieve Targeted Service Levels (% of implementations)

Discussion

It appears that offshoring is not only an irreversible trend that will continue to gain in importance over the coming years but it also foreshadows potentially far more complex phenomena with wide-ranging implications for businesses. What began as an almost serendipitous response to the crushing pressure for reprogramming legacy computer codes to meet Y2K deadlines is leading to fundamental business transformation shaped by several co-evolving forces.⁹ (See [Exhibit 3](#))

Exhibit 3. Upcoming Business Transformations

Commoditisation of organisational processes	Diffusion of offshoring and increased experience and scope of service providers lead to the standardisation of organisational processes.
Global sourcing of human capital	Advances in ICTs enables access to an increasing pool of qualified professionals worldwide that companies learn to source for any business process, anywhere in the world on most advantageous economic terms.
Hybrid organisational forms	Sharing databases, systems, and business knowledge with an increasing number of service providers results in more and more external organisations to become seamlessly embedded in client companies.
Morphing service providers	Offshore service providers are moving up the value chain, and design products and services offerings that compete with established domestic and international service providers.
New business models	With access to low-cost qualified workers, previously inconceivable activities become feasible. As a result, companies are experimenting with radically new growth models and ways of doing business.

Commoditisation of organisational processes

The ORN study reveals an accelerating growth in the number, diversity and complexity of functions being offshored. This trend is expected to continue as firms learn to better manage cultural, technical and operational challenges associated with offshoring administrative and technical work to lower-cost countries in Asia, Latin America and eastern Europe. Strong positive performances are legitimising these new practices and accelerating the drive to reduce costs and increase quality and scope of service levels through offshoring strategies.

Sixty-five per cent of implementations in the sample are offshored to third-party service providers and this number increases to 90 per cent for functions for which companies at offshore locations (India in particular) have already developed robust capabilities and gained international recognition, such as IT. More surprisingly, engineering and research work is also being offshored to low-cost service providers in almost 60 per cent of cases. As offshoring administrative and technical functions progressively becomes standardised industry practice, and third-party providers for these business services multiply and broaden the scope of their activities, the commoditisation of entire suites of organisational processes can be expected to emerge and more and more companies will disintermediate hitherto unique and often tacit organisational capabilities to external providers. This process will not crystallise overnight, but the progressive development of a global market for organisational processes will enable companies to source each of their processes (even sub-processes) from the most qualified (on basis of quality, reliability and costs) provider anywhere in the world.

Global sourcing of human capital

Closely linked to the commoditisation of organisational processes is learning to source human capital globally. Advances in ICTs increasingly enable access to qualified human resources worldwide. New communication technologies and the resulting emerging practice of offshoring are transforming the environment in which firms compete. Technology is globalising the labour market and

makes it possible for companies to access and leverage a new and much larger pool of skilled workers. However, competition for talent is also increasing worldwide, with the resulting challenge for companies to be able to attract and retain the most qualified talent wherever they are located. To distinguish themselves and survive in this competitive environment, firms will have to learn new capabilities involving the ability to source, locate, organise and manage human capital globally. This capability will become even more critical as wage inflation reduces labour arbitrage as the main source for the cost advantage of offshoring. As the effect of labour arbitrage decreases, some companies are realising that offshoring also offers opportunities to create value and drive innovation and growth by accessing highly-skilled talent anywhere in the world.¹⁰ Ultimately, firms will be making economic decisions about where, by whom, and how each business process should be performed. Firms that have been successful early adopters in taking advantage of advances in internet and broadband communication technologies to create value through offshoring strategies are likely to be in a better position to recognise and seize the opportunities offered by the global sourcing of human capital as a new source of competitive advantage.

New communication technologies and the resulting emerging practice of offshoring are transforming the environment in which firms compete

Emergence of intermediary and hybrid organisational forms

ORN survey findings show that finance and accounting offshore implementations tend to use captive organisations while contact centres and IT applications are most often implemented through third-party providers. Over time, some applications remain captive but increasingly captive organisations are turned to service providers. Technical activities in engineering and research, which were once considered too critical to be outsourced, are now divided into sub-processes entrusted to providers in low-cost locations. These evolutions are made possible by western companies not considering service providers as mere suppliers of organisational processes but instead building partnerships and strategic alliances with them and embedding these providers into their core organisation. As client organisations and service providers work together towards pre-agreed business objectives, trust increases and complex higher value-added activities are increasingly offshored to these external partners. By sharing databases, systems and business knowledge, external providers become seamlessly embedded in client organisations. In many instances, internal and external clients are unaware that the service they receive is provided by a third party. United Parcel Service (UPS), one of the leading US package delivery and logistics services companies, provides an example where capabilities are organically integrated into the client organisation hierarchical structure unbeknown to various stakeholders. These organisational experiments are giving rise to new hybrid organisational forms in which it is becoming difficult to discern the boundaries of the core organisation from embedded third-party intermediaries.

As companies acquire and learn the organisational capabilities for sourcing human resources and capabilities around the world they will learn to mix services of multiple providers into some form of 'meshed up' organisation. New entrants who are 'born on the web' might have the advantage of flexibility and opportunism relative to large multinationals with their hierarchical structures. For large multinationals offshoring involves unlearning deeply embedded structures and organisational processes. It involves experimenting with and learning entirely new organisational capabilities as they morph into more porous web-based network structures. As these dynamics unfold, the role of location may diminish. This will require new organisational capabilities for configuring, reconfiguring and managing remote locations as well as mixing and remixing various intermediary service providers.

Morphing of third-party service providers

There are some indications that third-party service providers and other outsourced original equipment manufacturers are beginning to move up the value chain. An increasing number of them are no longer content with their position as low-cost providers of human capital and are starting to design products and service offerings that compete with more traditional branded products and service providers. There is evidence that some service providers, for example TCS and Wipro, are now moving to compete directly with third-party service providers in the US.

Indian companies and workers have learned important lessons from working with western companies. They have developed entrepreneurial, management and technological capabilities that enable them to become global actors and compete with the companies they used to work for as subcontractors. More than the loss of jobs, the real threat for western economies probably derives from this new international competition from emerging countries. While employees who lose their jobs can be re-deployed, it is difficult to maintain economic dominance if creative and technological capabilities have passed on to newly-developing countries. What once constituted a competitive advantage for western economies might be threatened by imitation from other regions, which questions the sustainability of this competitive advantage. It is therefore strategically important for western economies to globalise their offshoring-enabled product development and innovation activities to drive growth domestically but more important to capture markets in countries with rapidly-growing buying power such as India and China. Public policy may also have a role to play in promoting scientific education among young people, as the shortage of talent with strong technical skills is increasingly mentioned by companies as a reason for them to look offshore for qualified personnel.

Indian companies and workers have learned important lessons from working with western companies

Emergence of new business models and prosumption phenomenon

Cost savings are a major strategic driver of offshoring. However, as firms start experimenting with offshoring, they quickly discover a seemingly unlimited source of talented people willing and capable of providing high-quality work in many different areas. Ultimately, companies will discover that offshoring is not so much about taking out costs as it is about enabling them to experiment with radically new ways of doing business. Activities that were deemed economically unfeasible in high-cost countries now become perfectly feasible. The discovery of these new opportunities acts as a catalyst for firms to review their business models. A company studied at Duke CIBER illustrates this phenomenon. After a few experiments with offshoring simple engineering tasks, the company realised that it could offer customers the possibility to engage in a joint online product design process with engineers in the Philippines. The process creates a customised product that the company could deliver. But it does not have to. In one application of this online design system, engineers devise a solution tailored to the customer's specific needs, and the customer then goes to the supplier of his/her choice to have the solution executed. Such online real-time design of customised solutions would not have been economically feasible using high-cost engineers in the US, but is feasible and profitable with qualified engineers in a low-cost location. These may be isolated early examples, but when combined with other marketing cases it gives meaning to the prosumption concept described in the book — *New Rules for the New Economy*, Kelly (1998) and to the idea of one-to-one marketing.¹¹

Conclusion

Offshoring of administrative and technical work has been enabled by advances in ICTs that make possible the location of digitised processes almost anywhere in the world. Early data suggest that the adoption of this new business practice is still limited but is predicted to grow rapidly. Though a few

pioneering companies started experimenting with offshoring in the 1980s and early 1990s, the trigger event was the Y2K deadline for recoding computers and the discovery in India of an ample supply of low-cost highly-qualified IT software specialists and programmers.

The ORN study reveals that the adoption of offshoring practices is characterised by opportunistic search for taking out costs and sequential learning-by-doing processes. In the early stage companies undertake a few experiments, mainly involving IT applications and finance and accounting. Once companies gain experience and progressively build the necessary capabilities, they experiment with offshoring processes that require more direct interactions with customers or internal clients, such as call centres, product support services and help desk activities. It usually takes firms about 18 months to gain enough confidence to start offshoring more technical engineering and research work. While the number and type of offshored functions change over time, so the particular sub-processes within each function also evolve, from simple to more complex and higher value-added tasks.

The process of adoption of the offshoring practice is also striking by the absence of top-down company-wide offshoring strategies and planning processes. Offshoring may eventually become a high-priority centralised corporate initiative, but at most companies its adoption almost invariably starts with random experiments initiated from the bottom up. Also at the industry level the adoption by firms of this new business practice seems random and opportunistic. While some companies have jumped on this opportunity and have started experimenting with a wide range of IT and business processes, others have remained cautious and many have not formulated any offshoring plan. This pattern is consistent with research on innovation and entrepreneurship that describes the very early phases of the emergence of a new industry or innovation as disorganised, trial and error, random or as anarchy. Nevertheless, various factors may explain this disorganised, slow, almost random experiential adoption process of offshoring. First, this practice is complex. To be successful, companies must overcome internal resistance, learn to organise geographically dispersed teams, work across time zones, cope with cultural differences and manage high employee turnover. These are organisational capabilities that companies do not necessarily possess and which need to be learned. Second, offshoring is still a poorly understood and highly sensitive phenomenon that generates strong resistance within organisations. Even after obtaining overall acceptance (buy-in), managers still need to be convinced that offshoring is applicable to their particular processes. Consistent with research on mimetic and normative isomorphic pressures, overcoming internal opposition and getting managers to actually start experimenting with and adopting offshoring is a major challenge in this early stage.¹² Finally, most companies probably lack the absorptive capabilities necessary for recognising the value of a new business practice and seize the opportunity of adopting it.¹³ If companies do not have adequate routines to question their old practices, to access and make use of information and knowledge from their external environment and to foster the emergence and adoption of new ideas, they are less likely to initiate offshoring strategies early on. They may rather wait for offshoring to mature and become a legitimate and standardised industry practice.

ORN outcome measures suggest that for many companies offshoring constitutes a very cost-effective practice. Taking out costs is the most important strategic driver for offshoring and in 75 per cent of cases companies achieve or exceed their expectations. Improving service levels is also a major driver for offshoring and data show that companies achieve their goals in a relatively short time, usually less than 12 months. However, in advance of initiating an offshoring implementation, companies tend to underestimate the risk of employee turnover. This can have dramatic consequences as high employee turnover is often at the origin of observed declines in service levels. The data are unambiguous about company future plans for offshoring. The offshoring of engineering and research activities is expected to increase significantly. India remains the preferred location, with other countries in Asia, especially China and the Philippines, emerging as alternative locations.

Although the ORN study is unique in that it builds a firm-level panel database of offshore implementations, some limitations should be acknowledged. First, the survey overlooks the issue of how savings from offshoring are used and of how companies deal with attrition in the US as a result

of offshoring. Second, there is a need for industry analyses to identify relevant differences and similarities in companies' experiences within and across sectors. Both issues will be addressed in subsequent surveys. Third, industry-contextualised studies are needed to understand the diffusion of best practices and lessons learned and how companies actually overcome the human, technical and operational challenges of offshoring. Finally, the first phase of the study targeted US companies in the Forbes Global 2000. However, a network of university partners in the EU is administering the same survey in several countries including the UK, Spain, Germany, Benelux and Scandinavia. In the future, this will enable comparative studies between and across companies in the US and EU.

The last section of this paper argued that offshoring may actually constitute only the tip of the iceberg of a far more important transformation involving the co-evolution of several forces that are shaping the future competitive environment of firms and industries. These dynamics need to be understood in terms of both push forces by companies in high-cost countries in search for sustainable offshoring strategies that are combining to set the stage for offshoring practices that will fundamentally change the business environment of the 21st century, and pull forces from developing countries moving up the value chain and actively marketing their human capital capabilities. These dynamics are hypothesised to include the commoditisation of organisational processes, the global sourcing of human capital, the emergence of intermediary and hybrid organisational forms, the strategies of developing countries to grow their economies through national investments in human capital, the morphing of third-party service providers in low-cost countries to compete with their global western counterparts, and the emergence of new business models. As these dynamics unfold, the hype around the emerging practice of offshoring and the loss of jobs will be supplanted by a focus on the fundamental business transformations that we believe are foreshadowed by the current trend in offshoring administrative and technical work.¹⁴

Appendix: Survey methodology

The first ORN online survey was launched in November 2004 (see [Appendix 1](#) for methodology). An email invitation was sent to the 650 US Forbes Global 2000 companies. Companies were directed to forward the survey to managers with responsibilities for specific offshoring implementations (HR, finance, engineering and so on). A total of 90 companies completed the first survey. Their responses involved 161 separate offshore implementations. The sample includes companies that were offshoring at the time of the survey (70 per cent) and companies that were not offshoring at that time (30 per cent), although a few were considering initiating specific offshoring implementations in the near future. The survey questionnaire is adapted to the company offshoring status (currently offshoring or not, and if not, considering initiating an offshoring strategy or not). Moreover, survey items have to be answered as regards every offshore implementation, i.e. every function offshored in one particular location, and not as regards the company as a whole. This provides much more precise insight but, as a result of the length of the questionnaire, also makes it difficult to reach a high response rate.

Following the administration of each survey, participating companies are invited to a debriefing workshop. The workshops are direct source of much more fine-grained and nuanced information on company experiences with offshoring. Finally, some companies have been selected for further in-depth case studies.

Acknowledgment

Dr Carine Peeters greatly acknowledges a Post-Doctoral Fellowship from the Belgian American Educational Foundation (BAEF). The authors also thank members of the Offshoring Research Network, in particular Chris Disher from Booz Allen Hamilton, Mark Peacock and Gary Sutton from Archstone Consulting, and Jeff Russell from the Duke Center for International Business Education and Research.

Appendix 1. Survey Methodology

November 2004	Launch of the survey.
Target	Executives and functional managers of 650 US Forbes 2000 companies. Offshoring of administrative and technical functions.
Process	Online survey, proprietary technology, personal logins and passwords. Follow up emails and phone calls.
Responses	90 companies (14 per cent response rate). 161 separate implementations. 70 per cent participants currently offshoring, 30 per cent not yet.
Demographics	Average revenue: \$21bn. Average market capitalisation: \$30bn. Both manufacturing and service industries.
February 2005	First closed debriefing meeting with survey participants.

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