DIGITAL PRODIGY
INTERNATIONAL

White Paper:

"Offshoring – A Strategic Imperative"

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Foreward

This paper was initially written in January 2005 by the seed investors of Digital Prodigy International (DPI) to help them understand the opportunities and threats in the global software offshoring market. These findings were key in helping DPI position themselves in this fragmented and complex market.

This White Paper has been brought up to date through a March 2008 revision, conducted by the DPI team.

Definitions

It is important at this stage to clearly define the meaning behind the terms “Offshoring” and “outsourcing”.

“Outsourcing” refers to sub-contracting a project, business function or operation to a third-party company. This way, a company can focus on its core business and leave non-core activities to providers that can perform them to a higher standard or more cheaply. For many years, companies have made use of outsourced subcontractors to provide everything from cleaning services to accountancy.

“Offshoring” refers to shifting a project, business function or operation to a different country. It is when outsourcing takes place in the developing world. Over recent years, the trend of outsourcing has gone global thanks to advances in telecommunications, automation of most services throughout the world and decreasing communication costs. The result has been Offshoring by many UK and US companies to countries like India, Pakistan, Russia and the Philippines. In the strictest sense, offshoring refers to the establishment of offices of existing companies in other countries. These countries offer a low-cost yet high technology option to expanding operations in the high-cost UK and US. For example, Microsoft owns and operates significant research and development centers in China and elsewhere.

Now with the trend of Offshoring firmly established in the IT industry, **“Offshore Outsourcing”** is the most common model. This refers to sending the project or business functions offshore, however rather than setting up a branch of an existing company; it uses an external or third-party company to do the work.

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1.0 INTRODUCTION

Offshoring is acknowledged as an economic inevitability in almost every industry as it matures. Large manufacturers of mass produced goods have traditionally moved their operations to lower cost economies as it allows them to reduce capital and operational expenditures and thus seek a much needed competitive advantage as their industry matures. It is not uncommon to find a high street retailer having its manufacturing completed in the developing world or an automotive brand having a production site in lower costs regions. Likewise Offshoring has become an economic inevitability for many companies who, as the IT industry evolves, need to find ways to remain competitive.

In 2007 the IBM CEO, Sam Palmisano, talked of the three phases that multinational companies have gone through. First was the 19th-century "international model", whereby firms were based in their home country, but sold goods through overseas sales offices. Then came the classic multinational firm, in which the parent company created smaller versions of itself in countries around the world. The third model is the "globally integrated enterprise" which shapes its strategy, management and operations as a single global entity. It puts people and jobs anywhere in the world "based on the right cost, the right skills and the right business environment". In this approach, "work flows to the places where it will be done best" (Business in Africa, May 2007 edition "IBM's global integration opportunity").

The IT Industry is now one of the largest and most influential industries in the world today. Software has changed the lives of people in ways not imagined before and is now integral to every aspect of our lives. Most things that we come into contact with now uses software of some kind; from being work with an alarm clock in the morning to using the toaster to make breakfast to sitting at traffic lights on the way to work where they use electronic mail as a primary communication medium. Software has also led to a major paradigm shift from localisation to absolute globalisation in every-day life. Software has enabled many activities to be fulfilled in the home, changing the face of mundane and time consuming tasks. Banking, education, music and communications have become accessible by all and now with the development of mobile technologies, the industry is seeing growth at a pace never experienced before.

The result of the meteoric growth in IT is a level of globalisation never seen before. Ironically however, as IT has brought the world closer, it too has fallen under the spell of globalisation. Where software was once the domain of the highly skilled expertise of "developed" countries and hardware was manufactured en masse in the poorer "developing" countries, the trend has now shifted to sending even software development tasks to developing countries to take advantage of cost savings and other quality and efficiency benefits.

A study conducted by McKinsey & Co., an investment consultancy firm, states that while the size of the total outsourcing market was only US$ 10 billion in 1998, US$ 140 billion volume is now predicted for 2008. Global Insight Magazine estimates that of this, $31 billion is the IT industry alone and claims that the potential savings in 2008 for the US will be almost $21 billion.

Although offshoring and outsourcing have become clear trends they have not always been a popular solution and have led to an increasingly public debate about the threat and impact of losing even relatively high-skilled, well-paid jobs offshore to nations like India, Pakistan, China and Russia. Forrester Research in the US has predicted that 3.3 million US services jobs will go offshore by 2015 (John C McCarthy 2004 "Near-Term Growth of Offshoring Accelerating"). However

many others predict that even more jobs will be created in the US and UK as the industry continues to grow and economic activity increases.

This clearly sets the stage for the growth of offshoring as a major trend rather than a passing fashion and there is no doubt that as this globalisation accelerates, a new vision of what it is to be a successful IT company is being forged. However offshoring brings its own inherent risks which many companies have discovered through their own experiences in dealing with small IT companies in developing countries. This White Paper provides an insight into the global software market and aims to evaluate the opportunities and challenges involved in Offshoring. In addition, the Paper shares some industry myths whilst revealing the lessons learned to build a successful and productive future for Offshoring partnerships worldwide.

2.0 CURRENT TRENDS IN OFFSHORING IN THE IT INDUSTRY

2.1 FROM LOW-TECH TO HIGH-TECH OFFSHORE PROJECTS

The offshoring trend has, up until a decade ago, affected mainly the manufacturing sector. But as communication services have become much faster and cheaper over the past decade, more and more companies are now moving service-sector jobs abroad as well to take advantage of cost savings, software quality, access to global markets and talent, and labour productivity gains. Now China too is clearly moving from manufacturing into the IT services sector and this means that UK and US multinational companies are speeding up their plans either to outsource more jobs to overseas contractors or to set up their own offshore service centers.

The main areas that are now being sent offshore in the IT industry are:

* product engineering;
* ownership of IT platforms that support back-office processes;
* remote management of data centres.

Software-as-a-service is one of the fastest growing areas of the IT industry and provides significant offshoring opportunities to overseas companies that are geared up for high-tech services. The customer does not take ownership of the software, but instead rents a total solution that is delivered remotely via internet. It provides a more cost-effective alternative for enterprises to achieve their business objectives than traditional packaged applications. It also offers easier administration, automatic updates and compatibility as all users will have the same version of software. For this reason there is easier collaboration between companies and ultimate global accessibility.

As more and more applications migrate to this new delivery platform, software as a service could raise the competitive bar for business process outsourcers. As the products of software-as-a-service companies begin to rival those of outsourcing vendors, the latter will need to offer higher-value services to remain relevant, or perhaps develop and offer their own software delivered as a service.

Interestingly, leading offshore services providers, such as IT consulting giant Wipro, are now opening large offices and making acquisitions in American and Europe - the locales of their leading customers, as earning profits from work performed purely offshore has become more challenging, and offshore firms become more global and mature in nature. Now, performance and customer satisfaction are as important as cost. Meanwhile, products manufactured offshore for corporations in the U.S., Canada, Japan and other developed nations are very often intended for sale in offshore markets - a clear indication of globalisation at work.

2.2 CHANGING IT FOCUS FOR THE UK AND US

This shift towards more high-tech offshore services has led to calls for the UK and US to rethink their own business operations. UK software sales are on course to lag almost $60 billion behind China this year, fuelling high-level calls for Britain to abandon the low-cost end of market. Revenues in the Chinese software product and services sector are forecast to reach $140 billion (Â£70 billion) by 2010, and already hit $21bn during the first quarter of 2008 alone, close

to the sector's $27.5bn revenue predictions for the entire year in the UK. Meanwhile, India's software sales and services revenues are forecast to reach $52 billion this year.

Sean Finnan, president of the UK trade association for technology Intellect and UK country manager for EDS, said it is time for Britain to forget any hopes of matching China and India in the low-cost software market. Finnan says the country should instead carve out a niche for itself in high-value end of the sector.

An Intellect report into the state of the UK technology industry published today shows the European technology industry growing by 5.7 percent last year, compared to 33 percent in India and 28 percent in China. Finnan said: "It is unsustainable to try and dominate the low-cost ground. China and India will always be able to win the volume game. We need to try and follow the lead of the financial-services sector to reposition ourselves at the high-value end of the market. We believe that the knowledge-economy services will be critical for the economy going forward."

2.3 NEW LOCATIONS FOR OFFSHORING

As offshoring grows, the cost of labour in India is also rising. Many of the same phenomena that the United States experienced in the early 2000s during the dot-com explosion are happening now in India. Increasing salaries, competition for talent, and increased turnover rate are already affecting the benefits of offshoring. The developing trend is therefore now moving toward more offshore activity in countries besides India, to take advantage of even lower costs.

Ravi Aron, a Professor of Operations and Information Management at the Wharton School of the University of Pennsylvania who closely follows BPO trends worldwide, estimates that in the four years from 2000 to 2004, India alone created 260,000 jobs in this sector. The jobs range from call-center work to sophisticated accounting, research and financial services functions. The powerful Indian industry group NASSCOM (National Association of Software and Service Companies), estimated that the country earned $3.5 billion in revenues from such work just in 2003-2004.

Not surprisingly, locations as disparate as Dubai, Mauritius and Sri Lanka are making plans to capture some of this economic upside. Dubai, a component of the United Arab Emirates, is setting up a Dubai Outsourcing Zone where wholly foreign-owned companies can operate tax-free. Dubai is also promoting its efficient transportation infrastructure and westernised lifestyles to potential outsourcers.

Sri Lanka's Board of Investment was recently a first-time attendee at a Bangalore IT trade show. They came to invite Indian BPO companies to set up some operations in Sri Lanka with the lure of skilled labour and a cost advantage over India of 10% to 15%.

"I think the next big emerging phenomenon is a hub-and-spoke model in globalisation of services," Aron says. Singapore already has become a BPO off-shoring hub whose spokes extend to India, China and the Philippines, and some day could reach out to Sri Lanka and Vietnam, he says. Dubai has the potential to be a Singapore-like hub in the Middle East. It is "stable, forward looking and technological advanced," he says. More than 300 Indian IT-services companies - including giants Satyam Computer Services and Tata Consultancy Services - have located in Singapore, in part to insure themselves against adverse U.S. legislation on trade issues.

"Singapore is a natural shelter because of its free trade agreement with the U.S.," Aron says. If needed, Indian BPO companies' computers can route their TCP/IP packets of data to the United States via Singapore. Besides, Singapore's extraordinary telecom and physical infrastructure also makes it a prime location for business data continuity and disaster recovery operations of Indian and other companies offering BPO services.

While the role of BPO hub by definition will be reserved to a chosen few locations, the spokes are likely to proliferate. Locations such as the Czech Republic, a country with a population of just 10 million, cannot indefinitely ramp up to meet the trained-labour needs of the BPO sector, and some of that work inevitably is beginning to spill over into other parts of Central and Eastern Europe. In part also, organisations are looking at non-Indian locations out of prudence - to diversify country risk and because of "the slight overheating of the Indian market with regard to staff attrition and rising wages."

Geography also is destiny. The Czech Republic and Hungary serve in near-shore roles for German and French companies; Canada for U.S. companies; South Africa for Western Europe because it is within European time zones; and Dalian in northeastern China plays that role for Japanese and Korean companies.

South Africa has "many of the same assets as India," Bell says. It has an English language heritage; high quality education; relatively low wages and excellent political and business infrastructure. More than 200 CALL CENTREs operate in Cape Town alone.

Among other aspiring niche players are locations as disparate as Chile, the Dominican Republic, Costa Rica, Jordan, Jamaica and Fiji.

Even within India itself, says Arjun Sethi, a Principal with A.T. Kearney in New Delhi, the major metropolitan locations - Bangalore, Chennai, Delhi, Hyderabad and Mumbai - are being challenged by emerging destinations such as Calcutta, Jaipur and Pune.

Indians overall are also "very aware of China," Sethi says, seeing it both as a challenge and an opportunity. Especially with regard to software application development and maintenance-type IT work, a growing number of Indian organisations, such as Tata Consultancy Systems and Satyam, have set up shop in China, trying to capitalise on the trained labour pool there as well as on a transportation and telecommunications infrastructure that is superior to India's but not more expensive.

The Indians bring superior project management skills and are hoping to use China not only as a platform for global BPO work but also as a market for such work, Sethi says.

2.4 GROWING IMPACTS ON DEVELOPING COUNTRIES

As the global IT industry grows, the biggest advances in developing nations are yet to come. It is estimated that between 2007 and 2014, around 1 billion people throughout Asia will enter the middle class for the first time, and middle class income levels will rise significantly. This will have far-reaching consequences and present immense challenges, including

the need to build infrastructure such as dependable electricity networks, roads and highways; extend their education systems; control pollution; and provide greater opportunities to residents in rural and remote areas.

Already, rapid growth in some offshoring centers in China and India has created a myriad of issues. Some Chinese cities are experiencing significant problems with pollution and road traffic. The most popular Indian business centers, such as Bangalore, are experiencing daunting shortages of real estate, while competition for workers is driving wages higher and higher. The electricity infrastructure in Pakistan is experiencing an enormous shortfall and scheduled load shedding has become part of daily life to cope with the over demand.

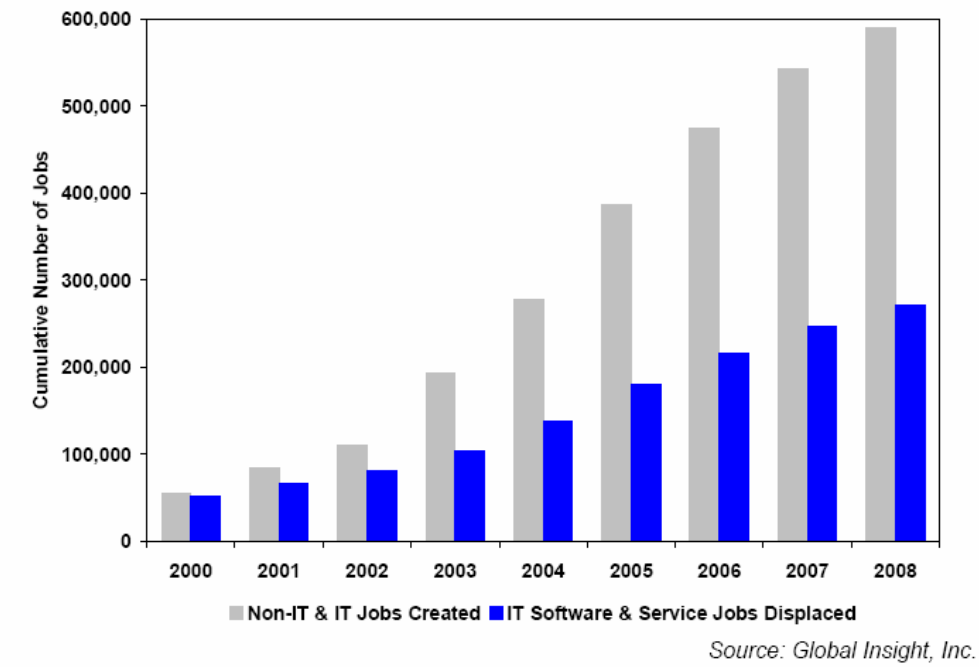
Now providers in India and other Southeast Asian countries are moving to establish operations in Tier-Two and Tier-Three cities. This will bring with it a whole new set of issues of poor infrastructure and lower quality of talent, which will necessitate investments in training and management.

3.0 THE PUBLIC DEBATE ABOUT OFFSHORING

The public debate about global offshoring has been going on for years, and revolves primarily around concerns about the loss of jobs in the UK and US to countries like India and China. However large companies argue that it is a vital tool to remain competitive, that it will save jobs in the long run and benefit the wider UK economy as the country's workers move on to higher value jobs.

A report published by the Advance Institute of Management, a UK leader in the field of management research, claims that the UK has actually benefitted from the offshoring trend. It found that despite the regular reports of jobs going overseas; even more jobs have been created in the country as other nations offshore work back to the UK. The report reveals that Britain has been more successful at exporting services than many other developed nations. This, it claims, means that the idea that jobs are disappearing to India is misleading, explaining the UK has a trade surplus in business services of £17bn, while India has no surplus at all.

The US figures show similar results, with the Global Insight group finding that while global IT software and service outsourcing displaces some IT workers, total employment in the United States increases as the benefits ripple through the economy. The incremental economic activity that follows offshore IT outsourcing created over 90,000 net new jobs as of 2003 and is expected to create 317,000 net new jobs by 2008. In the software and services area, the economy is expected to create 516,000 jobs over the next five years in an environment with global sourcing but only 490,000 without it. Of these 516,000 new jobs, 272,000 are expected to go offshore, while 244,000 are expected to remain onshore. Thus, the U.S IT workforce will continue to grow. Ultimately, while offshore IT software and services outsourcing have displaced and will continue to displace workers in IT software and services occupations, increased economic activity creates a wide range of new jobs—both IT and non-IT. Global Insight found that the benefits compound over time, the U.S. economy operates more efficiently, achieves a higher level of output, creates more than twice the number of jobs than are displaced, and increases the average real wage.



Cumulative Non-IT and IT Jobs Created Due to Increased Economic Activity vs. Cumulative IT Jobs Lost or Never Created Due to Offshore ITO

A recent Gartner survey has found that the problem in the British IT industry is not losing jobs to countries like India and China, but a lack of skilled IT staff in Britain, forcing companies to look offshore to have their projects completed (" IT skills shortage threatens humanity" from The Register, John Oates 1st November 2004).

The poll of 3,200 companies showed that one third of businesses are suffering IT staffing shortages and 76 per cent of businesses which had problems finding staff have been forced to delay launching new products and services because of problems filling IT vacancies. Part of the problem comes from the continued lack of women in the IT workforce - only 20 per cent of IT workers are female. Researchers believe the problem is bad now and will get worse in the future. They predict the IT workforce will grow at between 1.5 per cent and 2.2 per cent per annum for the next ten years. Apart from new jobs, recruits are also needed to fill posts left empty by people leaving the industry, taking a career break or retiring. This replacement demand is expected to be nine per cent for IT professionals and 14 per cent for the IT industry. This means the UK needs to find between 156,000 and 179,000 entrants a year.

However in the US the anti-offshoring lobby has been particularly strong, fuelled by high profile horror stories of sweat-shops in Southeast Asia being run by US multinationals. In response to intense pressure by professional organisations the US government recently passed a bill that forbids certain agencies of the Federal Government, including the departments of Treasury and Transportation, to subcontract work that has not previously been outsourced overseas outside of the United States. A number of American States plan to do the same.

In contrast, amidst the heated debates going on in 2004, the UK Trade Union Congress (TUC) in the *Global Offshoring Magazine*, March 2004, took a moderate view of offshoring, stating that although a significant number of jobs were at risk of being offshored (between 150,000 and 750,000 British jobs or 1 to 5 per cent of the total) these numbers must be considered in context. They pointed out that the service sector was continuing to create jobs in the UK, with almost 800,000 created between 2001 and 2004 and a clear indication of this trend continuing, plus the UK records a £15 billion trade surplus in services. The TUC does however draw on the experiences of the industrial transformations of the 1980s and 90s which led to long-term unemployment in certain traditional industrial regions due to a lack of government strategy. In order to avoid a similar scenario the TUC demands that the government draws up a strategy statement in cooperation with the main stakeholders to develop policies to help improve companies' global competitiveness and stimulate different kinds of employment at the local level.

The TUC is developing strategies for businesses to ensure that the decision to offshore is made on the basis of a clear assessment of the advantages and disadvantages, as well as a consultation round with staff and trade unions. Companies should make sure that jobs lost as a result of offshoring are replaced by others and should offer training opportunities for staff to upgrade their skills so that they can move up to high value added jobs.

On the other side of the argument, Amicus, the union for the financial services industry, has been one of the more critical members of the TUC. Amicus recently launched a national campaign to call attention to the negative impacts of offshoring jobs. According to Amicus, 15,000 jobs were offshored between October 2003 and the February 2004, while 200,000 jobs will have been lost by 2010. Offshoring of call centre jobs is for Amicus "the least of our worries". According to Amicus, ICT means that nearly any job is now at risk of being offshored. Together with a number of MEPs, Amicus launched a European campaign to raise awareness about the risks of global data traffic without sufficient protection. David Fleming, National Secretary for Amicus declared: "Offshoring is an accident waiting to happen. It is only a matter of time before a serious crime is committed, which ruins the reputation of the British financial services industry." (Statement Amicus, April 2004)

The Institute of Directors (IoD) believes that offshoring can only have a positive effect if the UK moves further up in the value-added chain. At the moment, cost efficiency is not the sole reason for companies move business offshore. Certain skills are difficult to find in the UK and easily available abroad. Only if Britain makes up for its skills deficiencies can offshoring have a positive effect on the British economy. (Anna van Zoest, IPPR Background Paper, July 2004 "Offshoring practices in the UK – Where are the Limits?")

In the same paper van Zoest says that, "According to the Confederation of British Industry (CBI) offshoring is a natural result of the development of the global market place and offers British companies opportunities to stay competitive, which is ultimately to the benefit of the UK economy." Current fears that offshoring might lead to large-scale job losses in the UK are, according to the CBI, not always justified. Certain companies might have relocated a part of their call-centres to India recently; however we should not forget that most jobs, even those in the call centre sector, remain in the UK.

Diana Farrell, Director of McKinsey Global Institute in their Round table says, "As distressing as the loss of jobs is, it does betray this notion that the economy has a fixed number of jobs. That is just flawed as a concept. A vibrant, dynamic

economy is one that bundles activities into increasingly higher value added activities. Now, certainly, some people get left out of that process and we need to have a conversation about what do we do about that. But, there is nothing to suggest that the U.S. has reached anywhere near a limit to that bundling of increasingly high value added activities."

Overall, there is no doubt that offshoring is and will continue to have an impact in changing the kind of skills people need. Although purely technical jobs may be lost, most offshoring contracts do create other jobs or opportunities in areas like Business Process Outsourcing. Managing outsourced suppliers and innovating will become more important parts of the remaining IT staff job function.

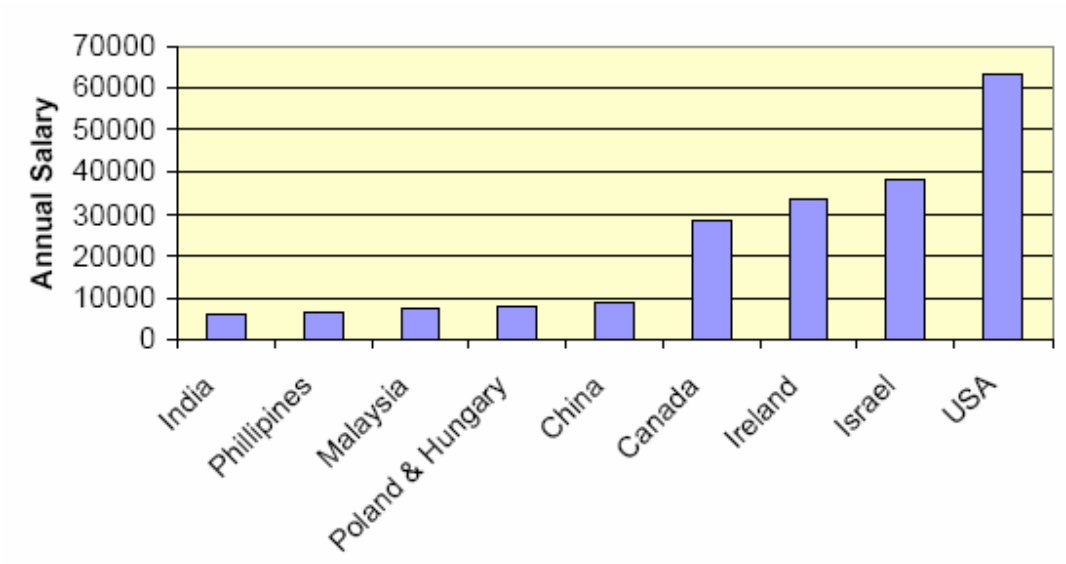
4.0 BENEFITS OF OFFSHORING

Offshoring offers significant advantages for many companies in the UK and US. Below is the breakdown of some important factors which are considered to be the most important and influential factors in going offshore.

4.1 COST SAVING

The global IT Industry is now so competitive that a growing number of large companies are offshoring many of their labour intensive IT services in order to save costs. As discussed, this includes basic services like call centres all the way through to highly sophisticated software development and even HR management services. Countries like India, China and more recently Pakistan have proven themselves as a cheap and reliable source of quality products and services, while their annual salaries are just a fraction of those in the US and UK.

The chart below illustrates the comparative wages of software programmers between different countries in comparison to the US dollar. It shows that the annual salary of China's software engineers is 6 times less than annual salary of US Software engineer while India is just one eighth of their US counterparts.



Annual salaries for software programmers in various countries (Computerworld, April 28, 2003).

Here is another chart demonstrating IT salaries compared between India and the UK/ US.

Comparative pay rates in India and UK/USA

Occupation	Salary in India	% of UK/US salary
Call Centre Operators	60p - £1.25/hour	13-20%
Software Engineers	£5,000 to£15,000	15-17%
Experienced IT Manager	$36,000	15%
Accountant	$5,000	12%
Market Research Analyst	$12,000	13%
HSBC average	£2,500	14%

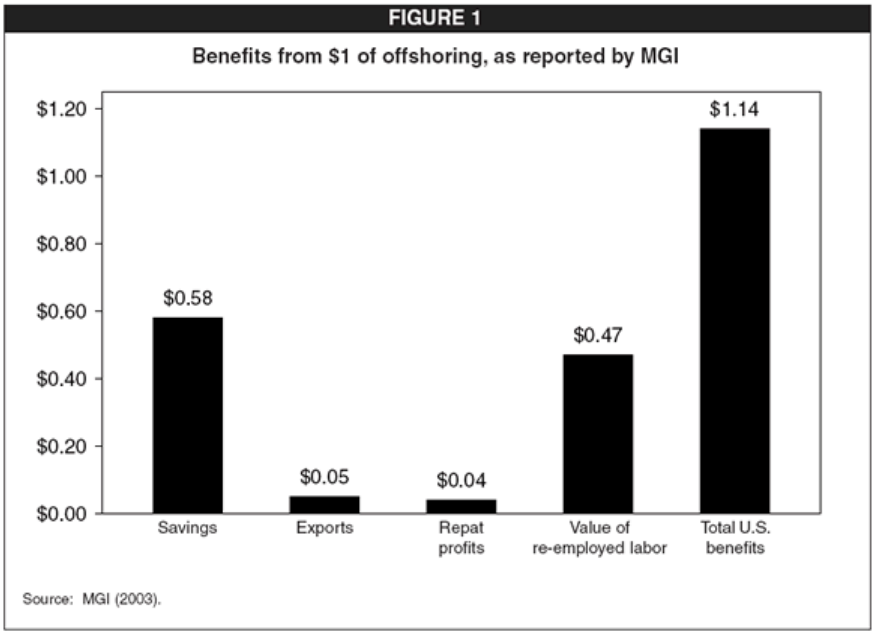
Source: Corporate Partners Research Programme: Outsourcing and Offshoring, Implications for organisational capacity, The Work Foundation, January 2004

Global Insight found that spending for global sourcing of computer software and services is expected to grow at a compound annual rate of almost 26%, increasing from approximately $10 billion in 2003 to $31 billion in 2008. During the same time period, total savings from the use of offshore resources are estimated to grow from $6.7 billion to $20.9 billion. The estimated spending amounts represent 2.3% and 6.2% of total IT software and services spending by U.S. corporations in 2003 and 2008, respectively.

On top of these cost savings the benefits for UK and US economies include lower inflation, increase productivity, and lower interest rates. This boosts business and consumer spending and increases economic activity. The benefits of global sourcing contribute significantly to real Gross Domestic Product in the United States, adding $33.6 billion in 2003. By 2008, real GDP is expected to be $124.2 billion higher than it would be in an environment in which offshore IT software and services outsourcing does not occur (Global Insight 2004).

The McKinsey Global Institute (MGI) is an independent economics think tank within the McKinsey & Company consulting firm and in 2003 it produced a pivotal report titled "Offshoring: Is it a Win-Win Game?" that received much media attention and was responsible for sparking the widespread public debate as to the ethics of offshoring. More recently, this report's findings are reiterated and explained further in a short report titled "Exploding the Myths of Offshoring." The reports identify large economic benefits that individual firms have already reaped from offshoring service production abroad. The most well-known aspect of the McKinsey reports is a chart used to illustrate the potential benefits to the U.S. economy from offshoring (this chart has been reproduced below as Figure 1). This chart shows

* Fifty-eight cents is saved in corporate costs;
* U.S. exports to the country where employment has been offshored increases by five cents; and
* Four cents is repatriated to U.S. multinationals from the offshored location.

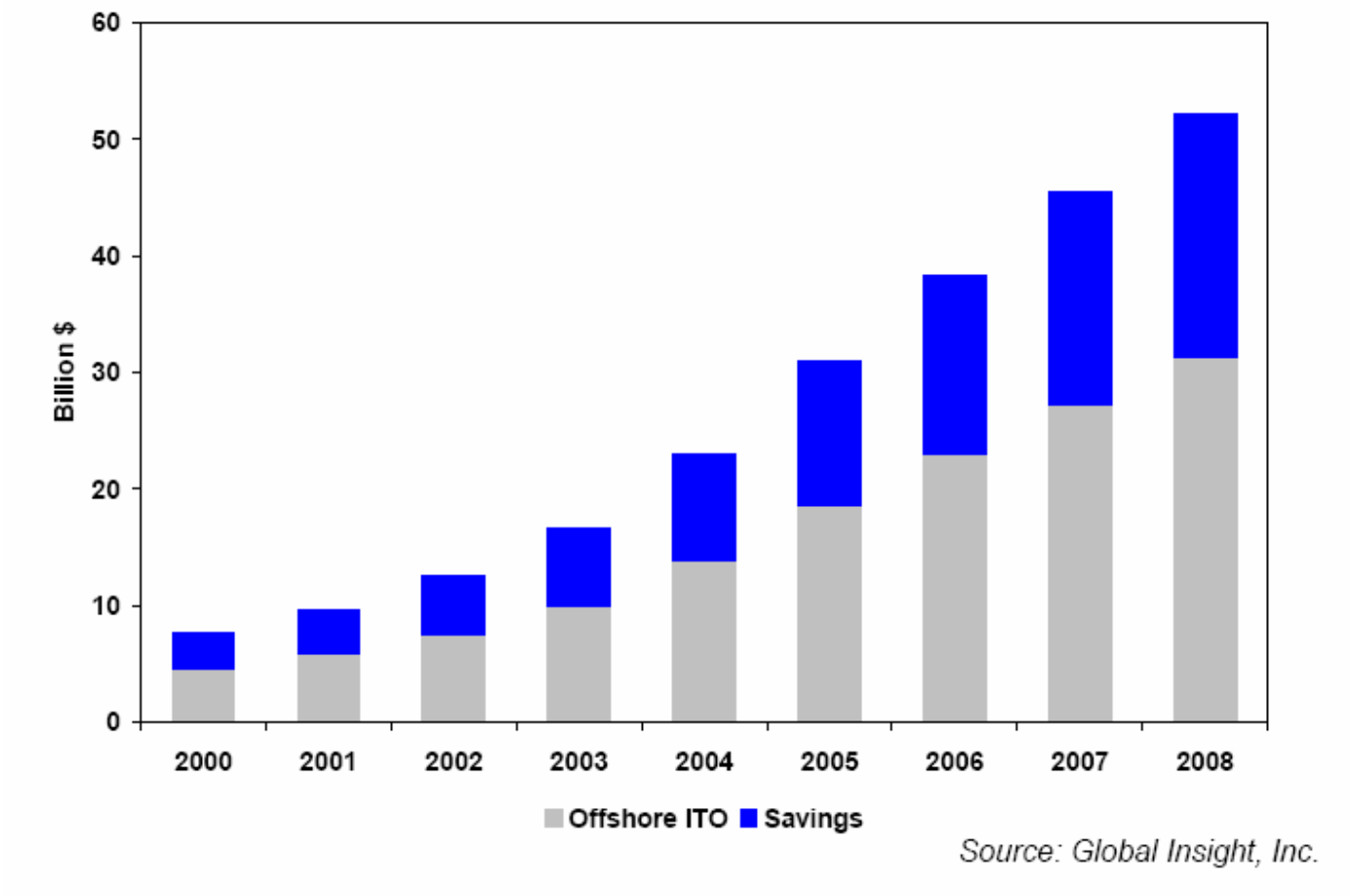


At around the same time as the McKinsey report, a study by Duke University/Archstone Consulting (published in Business Wire magazine, Dec 10, 2004) examined the results and offshoring initiatives of 90 large companies with average revenues of $21 billion, Fortune 500 companies have realised better than expected cost savings from offshoring and are continue planning to expand their offshoring activities.

The results, which were presented at the 2004 National Forum on Trade Policy in Durham, N.C., found that 72% of offshore implementations met or exceeded their expected savings, with 31% achieving their service level goals within the first five months. The results also indicated that more than 55% of the companies surveyed had cost savings expectations greater than 30% per year.

The study also revealed that offshore implementations are planned to grow by more than 50% over the next 18 to 36 months citing significant cost benefits as the No. 1 driver (93%) followed by demand for improved service levels (56 %).

Global Insight in their 2004 report "The Comprehensive Impact of Offshore IT Software and Services Outsourcing on the U.S. Economy and the IT Industry" used the following graph to demonstrate the estimated ITO spending and savings projected until 2008. They use a 40% assumed saving by using offshore companies and relate that the cost savings in 2003 reached $6.7 billion and estimate the likely spending amount will be $31 billion in 2008 which would mean nearly $21 billion in savings.



Estimated Offshore ITO Spending and Potential Savings

4.2 IMPROVED QUALITY AND PROCESSES

Gaining and maintaining high quality whilst also gaining the reduced cost factor is considered to be another major benefit from offshoring. Many small companies in India, China etc are now gaining certification in international standards like ISO, CMM and project management standards for their own competitiveness in winning projects. Offshore companies are also largely specialised and focused on specific outsourced functions so their ability to complete projects effectively are highly developed.

Susan O'Day, Chief Information Officer of Bristol-Myers Squibb Co, says the goal for outsourcing their finance and accounting work was both cutting costs and improving processes. "We think about standardisation of processes as a means of driving greater integrity to our reporting," she says. "We found that an outsourcer could help drive that

standardisation as effectively or more effectively than we could. An outsourcer also provided a scale and access to labour markets we would not necessarily have." ("Offshoring benefits too good to pass up" CFO Magazine May 2007)

4.3 STREAMLINING CORE COMPETENCIES

Bill Gates, Chief Architect of Microsoft said in 1999 Time Magazine "As a business manager, you need to take a hard look at your core competencies. Revisit the areas of your company that aren't directly involved in those competencies, and consider whether Web technologies can enable you to spin off those tasks. Let another company take over the management responsibilities for that work, and use modern communication technology to work closely with the people - now partners instead of employees are doing the work. In the Web work style, employees can push the freedom the Web provides to its limits."

Many companies have found this an enormous advantage of offshoring, particularly where resources in a company are inadequate for a particular job, or departments are overstretched. Rather than going to the trouble and expense of setting up the infrastructure themselves, offshoring allows the option of growing quickly and economically. Offshore setups can scale up quickly, drawing on their large pool of appropriately skilled labour. Offshore development centers have highly educated and well trained individuals often with a strong work ethic driven by economic need. They often go beyond their working hours and their work time is scheduled to maximise their productivity.

4.4 ACCESS TO LEADING-EDGE TECHNOLOGIES

The globalisation of the IT industry means that technologies are no longer restricted to national borders. Offshoring has spread the dissemination of information and technology to all corners of the globe and so sending projects to developing countries only enhances the access to all available technologies and expertise from all over the world.

4.5 SKILLED PERSONNEL

Offshoring does not mean compromising on the quality of personnel and in fact has many benefits over hiring locally. It is said that India produces two million university graduates per year. Global companies can recruit the most talented employees out of this pool, for jobs that are, in contrast to their image in Europe and the US, considered high profile and desirable. "The issue now was not finding good people; it was filtering the excellent from the good," states Mark Kobayashi-Hillary, who went to Bangalore to open a software facility and author of *Outsourcing to India: the Offshore Advantage*. (Observer, 04 April 2004)

As the offshoring industry matures, established offshore service providers have resources who have built expertise on specific tasks. This helps organisations who are facing talent availability or retention challenges. Medium sized companies can benefit by utilising skilled resources offshore, thereby, eliminating recruitment, training and retention challenges, to focus their efforts on client relationships and growth of their core business

Another positive feature of India is the country's highly motivated workforce is that U.S. call centres often experience low morale and very high turnover, usually 40%-70% annually. Considering the time and costs associated with training

new agents, it becomes difficult to maintain quality service at a low cost. Currently, Indian call centres have an average turnover rate of only around 5%.

4.6 TIME ZONES

Gaining around-the-clock advantage is a major benefit for some large international companies who are seeking to increase project delivery speed and productivity. Careful selection of offshoring countries can allow 24/7 continuous work on R&D projects, QA activities and even management functions. The Bank of America is one example of this. By shifting some of their programming work offshore, BofA was able to convert itself into a 24-hour company. Programmers in California could hand off work overnight to colleagues in India, who handed it back off the next morning. This meant enormous savings in terms of costs and efficiencies in customer service.

4.7 SCALABILITY

One of the distinct advantages of offshoring is that it makes recruitment much easier thanks to the larger talent pool available. The risks involved in fast expansion are minimised, as staff can be added and removed if necessary much more easily. This gives to scope to increase staff when big projects come along, and scale back as needed which is financially a great advantage to large companies.

4.8 BEST PRACTICE, TESTING AND DOCUMENTATION

There are many small scale business functions which are often omitted in projects due to the high cost in relation to perceived value and the tight timeframes. These include best practice, product testing and process documentation. The cost benefits of offshoring allow these functions to be undertaken within budget and deadlines.

5.0 CHALLENGES IN OFFSHORING

5.1 LOCATION IDENTIFICATION

Identification of an appropriate location for offshoring is imperative for success. Incorrect site selection could result in non-availability of required skills, high costs, project failures and security concerns due to geopolitical reasons and infrastructure issues. Now with a myriad of choices throughout the world as discussed in the previous chapter, it is a clear matter of strategy as to which country best serves the offshoring needs. It is important that a company looking to send projects offshore carefully considers their needs in relation to what different countries and regions can offer them.

5.2 COMMUNICATION ISSUES

In offshoring, communication issues are the most common barrier to success and are a key cause of overblown costs and project failure. This seems to be in three main areas:

5.2.1 Requirements Capture

Understanding the project requirements is often the Achilles heel of an outsourced project, particularly where transformational outsourcing is concerned. Misinterpretation of the requirements due to language barriers and different understandings of terms used has led many companies to reassess whether offshoring is actually worthwhile due to the extra time and cost needed to fix problems. It is also common that organisations have no set idea of how the transformed system or process will look or the idea will change and develop with time. For the offshore company this means that the goal posts keep changing and can lead to higher costs and difficult implementation.

5.2.2 Project management

One of the major sources of failure in offshored projects is project management where communication breaks down, expectations are not met, and inefficiencies creep in. It is now understood that effective project coordination is essential to offshoring success and requires a well defined management structure with clearly defined responsibilities and processes to keep the offshore project on track. Offshore companies are now starting to use recognised project management models (like the Microsoft model) to give them a competitive edge in gaining projects. This is a huge advantage and will overcome innumerable issues because it means that all aspects of the project management are standardised in a recognisable format. Documentation will allow the project to be tracked at any point in time, communication processes between project management and the offshore project team are established and the project processes are clearly set out from the beginning.

5.2.3 Cultural differences

Language barriers and cultural differences are major limitations in offshore projects because if the client and offshore company cannot understand each other, there is very little chance of the project being successful. Language barriers are significant, but other cultural factors such as ability to meet deadlines, quality of work output and work ethic are also very important. It highlights the point that many companies have raised in their

critique of their offshoring experience that central to their success is building a good working relationship with their offshore partners and an understanding of each others' needs.

5.3 QUALITY

Quality risk is directly related to communication and project management and with improvement in these areas, quality issues are significantly minimised. However different companies have different quality requirements and so while some projects require that the offshore provider has achieved a certain level of the Capability Maturity Model, others may simply want to be assured they are getting a "satisfaction guarantee". Companies are retraining their staff to use a consistent methodology & processes based on the capability maturity model (CMM) to drive their higher utilisation of offshore suppliers. According to META Group approximately 70% IT organisations are at CMM Level 1, thus creating a gap that is compensated for by additional vendor resources on-site. Companies lacking internal process maturity model weakens the prospective cost savings factor.

5.4 DATA SECURITY

Industry analyst Gartner warned that security and privacy concerns are fast becoming the biggest issue for companies considering outsourcing to lower cost offshore locations. These risks arise when source code and sensitive project information is revealed to offshore teams, leaving open the possibility of this information being misused or sold.

One case in point is The Bank of America which has now instituted stringent security measures a result of several security breaches. At the center in India where workers handle e-mailed questions from BofA customers using the bank's online banking service, managers there lock up all the notes and work papers of every customer-service rep each night, to avoid the risk that night janitors could come along and filch the account information for one BofA's customers in another country. ("How BofA Banks on Offshoring" Business Week January 30 2006)

5.5 BALANCING HOW MUCH TO OUTSOURCE

Many large companies moving into outsourcing have learned the lesson that they can't eliminate a function or process completely. They've learned that companies must retain some part of the function within their own company to provide supplier management, process management, and governance. Striking a balance between the outsourcer and the company has become a challenge. While companies don't want to build up their infrastructures again, they must evaluate how much they need to hang on to internally to ensure quality, service, and cost.

So the major challenge facing companies in the UK and US now is to redefine their core business and use offshoring as the means to have all other business functions fulfilled outside the company. This is where the balance in how much to offshore is found. In this however lies another challenge and that is to find an offshore partner who has the required technical expertise but can minimise the myriad of risks mentioned above. One solution is to find a partner with an already strong presence in the UK and US yet is based in the developing world. The cost savings in this case may not be as high as if companies go direct to the developing world, but the risks will be minimised.

5.6 BUSINESS PROCESS RE-ENGINEERING

One of the major challenges a company will face in Outsourcing or Offshoring is to change its processes effectively to manage a new internal or external supply chain. Business Process Re-Engineering is the radical re-design of how a company operates and should ideally be looked at from a "clean slate". In practice, this re-engineering process does not occur and instead operations teams try to shoehorn existing processes into a changing working environment. This creates the proverbial operational time bomb waiting to explode.

6.0 CONCLUSION

The inevitable globalisation of the IT industry is now a firmly established reality. This means that despite the public debate surrounding the loss of jobs to developing countries, offshoring is here to stay as a way of reducing costs, streamlining core functions and improving efficiencies in IT companies.

One of the key challenges presented by offshoring is defining the new role for companies in developed countries. Nations such as the UK and US have been shifting to knowledge-based economies for decades, as automation takes over factory floors and the manufacturing market shifts overseas. Now to deal with the further shift in higher level service jobs to offshore locations, the challenge is for these countries to maintain their leads in such areas as intellectual property, investment in R&D, higher education and above all innovation. Ron Blackwell, Director of Corporate Affairs of the AFL-CIO (the Federation of Labour Organisations in the US) says, “In a globalised economy, we can't build successful companies unless it's based on innovation. We need to develop companies as learning organisations that are devoted to the sole purpose of creating new ideas for new products and better services, not scouring the earth for cheaper inputs”.

As companies redefine their core business they will be able to use offshoring as an invaluable tool to have all other business functions fulfilled outside the company. However this relies heavily on choosing the right offshore partner. It is essential for a company to have a clear understanding of their requirements and the possible pitfalls to offshoring so that they can choose a partner who meets their technical and also cultural needs to build a strong relationship over time. Developing countries have recognised the growing trend towards globalisation as a huge opportunity and are now skilling themselves to be well versed in IT and the needs of western companies. Companies like Wipro and Infosys (based in India) are taking the lead in gearing themselves up for big business and are now even competing against companies like IBM who have offices in India. To overcome many of the hidden pitfalls of Offshoring, many companies have set up offices in the West to remain closer to the customer and manage the whole process from a single time zone. In these scenarios, whilst the project will be de-risk, so will the potential savings from Offshoring.

Offshoring has become a strategic imperative in this age of the globally integrated enterprise and as long as companies approach offshoring strategically and with careful consideration of the challenges involved, its success will be assured.

One thing is for sure. As the industry grows, the social impact on the developing world is tremendous with over 1 billion in Asia alone expected to enter the middle class for the first time.

APPENDIX A: OFFSHORING CASE STUDIES – SUCCESSES AND FAILURES

Offshore outsourcing is a powerful tool to cut costs, improve performance, and refocus on core business, however these initiatives can also fall short of management's expectations once put into practice. Even the most successful examples of offshoring cite major lessons learned through their experiences. Here we will examine some of the successes and failures of offshoring over the last 10 years and attempt to learn from their examples.

1.0 DATACRAFT, SINGAPORE-BASED IT SERVICE PROVIDER

"We've tried it twice before, and the results were not good," says the CFO of Datacraft, Phillip Chu. His first try involved human resources. "Our HR function was spread across many countries and wasn't being professionally run, so we thought, 'Let's outsource it.'" The outcome was a project that cost Datacraft more than it had been spending on HR previously and that soon became a grievous distraction for management. "We ended up devoting more effort to HR than we did originally and I was the one who had to provide the outsourcer with the data." Later, Datacraft outsourced tax planning and preparation. It was another disappointment — a costlier function that created new problems for Chu. "At the end of the day we received penalties for things that had been done incorrectly with our taxes," says the CFO

However, Chu now predicts that one year from now he will have turned over his accounts payable and procurement functions to an outsourcing firm. He doubts that outsourcing will save him much and isn't looking for process improvements beyond what he's already achieved through a recent shared services effort. Drawing a lesson from his experiences, he vows to dedicate an internal staff member to manage the vendor relationship.

Instead, he will do it for a simpler reason: the threat of losing his best employees. "Staff turnover is my number-one problem," says Chu. "It's very hard to recruit new staff these days, and if you ask your top talent to do routine stuff like transactions, they will leave. But if I outsource it then they can spend their time on more exciting work." He will redirect his staff — he'll keep the same number of employees after outsourcing — away from three-way matches and toward analytical projects in support of business growth. There's plenty to do: Datacraft is growing 20% a year.

(CFO Asia Magazine August 14, 2007)

2.0 PENSKE TRUCK LEASING CO, US

Frank Cocuzza's first visit to an outsourcing vendor in India seven years ago left him intrigued but not ready to jump. "Nice story," the senior vice president of finance for Penske Truck Leasing Co. recalls thinking. "But we weren't going to trade our processes for a nice story." Eighteen months later, Cocuzza flew back for a second look, stuck around for a five-day visit, and left dazzled. The vendor's 600-person workforce had swollen to 3,000, service offerings had been expanded, and best-practice processes were in evidence everywhere. "We came away so impressed with what they had built that we realised we needed what they were doing," Cocuzza recalls. He soon began shipping bits and pieces of his finance operation to the outsourcer, which was then a subsidiary of General Electric Co. but is today an independent company operating as Genpact. It now handles some 40 different finance processes for Reading, Pennsylvania-based

Penske, including collections, various accounting and financial-reporting activities, and even on-demand data analysis for the business units.

Penske's experience mirrors that of a growing segment of Corporate America. TPI, a Houston-based outsourcing advisory firm, says that while the total value of business-process-outsourcing contracts signed in 2006 was down for the second consecutive year, the total value of outsourcing contracts for finance services nearly doubled. Don't look for the latter trend to end anytime soon. Richard Roth, president of Global Enterprise Solutions for consulting firm The Hackett Group, predicts that over the next three years the overall percentage of U.S. finance costs that are spent on outsourcing will double from about 4 percent to 8 percent.

(CFO Magazine May 1, 2007)

3.0 IBM

Last June IBM held its annual investors' day in the grounds of the Bangalore Palace, a fake Windsor Castle in India's equivalent of Silicon Valley. Big Blue pulled out all the stops to impress the 50 or so investors and Wall Street analysts who turned up, gathering 10,000 employees to hear speeches by the president of India, the country's leading telecoms entrepreneur and IBM's own boss, Sam Palmisano, all hosted by a Bollywood babe in a red sari.

The annual investors' day is usually held in New York, though it once took place in faraway Boston. By going to Bangalore, the technology giant was sending a strong message. With 53,000 employees, India is now at the core of IBM's strategy. With other big developing countries, including China, Brazil and Russia, it is fast becoming the firm's centre of gravity.

Just three decades earlier, IBM had quit India, which was in the grip of corporatist and nationalistic industrial policies. Only in the early 1990s did it gradually start to return, as the government began to deregulate and reconnect with the world economy. Now, as Mr Palmisano pointed out to his investors in Bangalore, the domestic Indian market has become one of the fastest-growing in the world for IBM, with revenues rising by 40-50% a year, albeit from a very small base. The firm now has more employees in India than in any other country except America.

Mr Palmisano announced that IBM would invest a further $6 billion in India over the coming three years, up from $2 billion in the previous three. That sum does not include any acquisitions of Indian companies. (It has already struck some big deals, notably buying Daksh, an Indian outsourcing company, in 2004.) Some locals wondered how IBM would manage to spend all that money. But booming demand is pulling wages higher in India and costly training is now needed to lure workers being courted by other companies. Plus it seems that Indian services firms such as Infosys and Wipro are starting to give IBM — and its old rivals, Accenture, EDS and Hewlett-Packard — a run for their money.

(The Economist April 9, 2007)

4.0 BANK OF AMERICA

For the Bank of America, the decision to begin offshoring was, to borrow from the old adage, about time, not money. Granted, the Charlotte (N.C.)-based banking giant did realise significant cost savings by shifting hundreds of technology and analytical jobs to India, Singapore, and China. Bank execs estimate that they've saved roughly $100 million since 2001 by offshoring some work that was previously performed in the U.S. and Britain. But just as important was the dramatic savings in time that BofA realised when it developed new products and services.

Indeed, when Barbara J. Desoer became the bank's chief technology, service, and fulfillment executive in 2001, the biggest complaint she heard from the myriad departments her technology team supported was that the IT staff "takes too long, costs too much, and [was] not on schedule enough." But by shifting some programming work offshore, BofA was able to convert itself into a 24-hour company. Programmers in California could hand off work overnight to colleagues in India, who handed it back off the next morning.

Other moves benefited the bank's commercial lending officers and investment bankers, who instead of assigning junior analysts with the task of compiling so-called "pitch books" -- the documents filled with all the data and analysis they need to make business presentations to prospective clients -- they now make the requests of their new colleagues in India. Analysts in India work all night to prepare the pitch books for the bankers, who find the materials waiting in their e-mail the next morning -- a good 24 hours before it would have arrived the old way. "The 24-hour clock was a big advantage from the start," says Desoer.

Admittedly, the move offshore wasn't always seamless. At its Concord (Calif.) technology center, employees were up in arms over the abrupt style in which BofA first began shifting some programming work to India and elsewhere. Morale plummeted when some BofA tech workers who were losing their jobs in the outsourcing process were, as their final assignment before being let go, instructed to train their Indian replacements.

As BofA has grown more comfortable with the process of offshoring, it has begun to shift more and more "commodity" tasks around the globe. Some treasury functions such as reconciling small discrepancies in corporate accounts have been shifted from London to India. The bank has also relocated a "letter of credit" processing facility from Hong Kong to China. And BofA is currently looking at offshoring some call-center work to Mexico, where it hopes to handle calls from Spanish-speaking customers in the U.S.

At the same time, Desoer says there are many tasks the bank will never consider outsourcing -- namely, anything where BofA believes it has a competitive edge. That way, it ensures that a third party doesn't misappropriate any of the bank's proprietary processes or share them with another client bank.

"We ask ourselves, 'Is there a core competency where we wouldn't want our Infosys team to learn what we're doing?' We're very careful what we send to third parties," she says. "We're not going to give people access to something that is proprietary or differentiating."

("How BofA Banks on Offshoring" Outsourcing Magazine January 30, 2006)

5.0 GENERAL ELECTRIC, US

GE is a pioneer in the offshore outsourcing arena. In the early 1990s, Jack Welch, the former CEO of GE, introduced a new rule that governed GE's offshore actions. It is called the 70:70:70 rule. In an e-mail to GE employees, Welch mandated that 70% of GE's work would be outsourced. Out of this, 70% of that work would be completed from offshore development centers. And out of this, about 70% would be sent to India. This comes out to about 30% of GE's work being outsourced to India.

GE's BPO operations in India fall under GE Capital International Services (GECIS), which was set up in '97 to carry out back-office operations for GE Capital's businesses. Its service offerings include ERP and Oracle database consulting, IT help desks, knowledge services, software solutions, analytics, data mining and modeling, remote network monitoring, e-learning, and customer contact centers.

GECIS employs over 12,000 people and delivers over 450 processes to 30 different business units in the United States, Europe, Japan, and Australia. In India, it has four sites in Gurgaon, two in Hyderabad, one in Bangalore, and one in Jaipur. Clearly, offshoring is a common delivery method of outsourcing for GE.

The most obvious benefit of offshoring to GE is the low cost. Compared to a U.S. call centre, offshoring can save companies up to 50% in operational expenses. But there is more to why people are shipping call centres to countries such as India besides cost. Benefits such as an educated, English-speaking labour pool, low employee turnover, and complimentary time zones all make offshoring attractive.

6.0 CONSECO – CALL CENTRE OUTSOURCING

Indianapolis-based Conseco is a holding company for two operating businesses: insurance and finance. In April 2002, Conseco acquired a firm specialising in customer service and back-office outsourcing to India and planned to move 14% of its U.S. jobs to India over the next two years. However, later in 2002, Conseco backed away from its plan and announced that it sold its interest in the outsourcing firm to EXLService as part of its efforts to allow it to refocus its resources, and management time on core businesses.

Interestingly, Conseco also decided to return more of the outsourced jobs to its U.S. facilities. The decision was based on two factors: 1) reduced volume of business and 2) the need to exercise close control over the processes that most directly affect its relationships with current customers and distribution partners. The company admitted that it found that some of these processes difficult to manage successfully from a distance.

7.0 LIFE TIME FITNESS

Wesley Bertch, director of software systems at Life Time Fitness, wrote a balanced article on his company's experiences with an offshore vendor. According to him, the root causes behind the failure were threefold: inexperienced labour, overemphasis on process, and project performance metrics masking problems.

8.0 DELL - CORPORATE SUPPORT CALL CENTRES

After an onslaught of complaints, computer maker Dell stopped using a technical support center in India to handle calls from its corporate customers. Some U.S. customers complained that the Indian technical-support representatives were difficult to communicate with because of thick accents and scripted responses. Corporate customers account for about 85% of Dell's business, with only 15% coming from the consumer market.

Calls from some home PC owners will continue to be handled by the technical support center in Bangalore, India; Dell has no plans to scale back the operation there. Worldwide, Dell employs about 44,300 people. About 54% are abroad.

[Source: CNN, November 25, 2003]

9.0 LEHMAN - INTERNAL HELP DESK SUPPORT

In December 2003, it was reported that Lehman Brothers had stopped using Wipro Spectramind, for its internal IT help desk. According to a Lehman analyst, the Indian firm could not provide the level of quality and service Lehman sought for help desk support.

Lehman is still using two Indian firms - Tata Consultancy Services and Wipro - to manage some of its IT infrastructure support, software application development, and applications support. Lehman uses about 450 workers at Tata and Wipro and has generated savings of about 40%-50%.

[Source: Associated Press, December 15, 2003]

10.0 COGENT ROAD - MORTGAGE BANKING

Cogent Road offers e-business solutions for the mortgage banking industry that protect banks from loss by identifying potential errors in collateral valuation and loan regulation compliance. When Cogent Road outsourced a project to Calcutta, India, the company was surprised to find that it took twice as long as estimated, due to the language barrier and 12-hour time difference between India and its San Diego headquarters.

(BusinessWeek Online, "The Outsourcing Food Chain," March 11, 2004)

11.0 SHOP DIRECT - CALL CENTRE

Shop Direct, which employs 1,200 people in the United Kingdom, opened a call centre in Bangalore in March 2002 and transferred 250 jobs from Britain. Service from the new location was poor, and the experiment ended in 2004 when jobs were moved back to six call centres in the United Kingdom.

A spokesman said the Indian center dealt with orders and customer inquiries, but the level of service was not up to the required standard. He noted consumers felt the Indian staff had poorer skills than their British counterparts and were ill

equipped to deal with inquiries. "They may be cheaper but I can certainly tell the difference when I am being served by someone overseas. Success is much more important than having someone who costs half the price," he said.

[IANS , January 26, 2004]

APPENDIX B: RELATED ARTICLES

1.0 THE COMPREHENSIVE IMPACT OF OFFSHORE IT SOFTWARE AND SERVICES OUTSOURCING ON THE U.S. ECONOMY AND THE IT INDUSTRY

Sponsored by Information Technology Association of America
Prepared by Global Insight (USA), Inc. 2004

2.0 OFFSHORING, A THREAT FOR THE UK'S KNOWLEDGE JOBS? GLOBALISATION AND THE EXTENT AND IMPACT OF OFFSHORE OUTSOURCING

A working paper prepared for the Knowledge Economy Programme, the Work Foundation
Katerina Rüdiger 2007

3.0 EXPLODING THE MYTHS OF OFFSHORING

The McKinsey Quarterly, June 2004

4.0 GARTNER OUTSOURCING AND IT SERVICES SUMMIT

The Gartner Group: April 2005

5.0 OFFSHORE OUTSOURCING AND AMERICA'S COMPETITIVE EDGE: LOSING OUT IN THE HIGH TECHNOLOGY R&D AND SERVICES SECTORS

Office of Senator by Joseph I. Lieberman, 2004

6.0 OFFSHORING PRACTICES IN THE UK – WHERE ARE THE LIMITS?

Anna van Zoest, IPPR Background Paper, July 2004

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