

The Offshore Services Value Chain

Developing Countries and the Crisis

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Abstract

This paper analyzes the recent evolution and impact of the global economic crisis on the offshore services industry. Using a global value chains framework, the authors classify the offshore services sector in a comprehensive set of general and industry-specific activities that correspond to different segments and stages in the value-adding process for services. Through an analysis of the impact of the economic crisis on the industry, a small decline in demand was found; however this did not cause any structural changes in the market. The crisis has created two opposing effects: general

contraction of demand by existing customers due to the recession; and, at the same time, a substitution effect by which new services are being moved from developed countries to emerging economies in search of cost reduction. The paper concludes that the offshore services industry will continue to offer growth opportunities for developing countries not only among existing market players, but also a range of new countries. The industry has the potential to become an important source for employment and economic growth around the globe.

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The Offshore Services Value Chain: Developing Countries and the Crisis

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JEL Codes: F23, L22, L84

Acronyms

| | |
|---------|---|
| ADP | Automatic Data Processing |
| BCG | Boston Consulting Group |
| BPAP | Business Processing Association-Philippines |
| BPO | Business Process Outsourcing |
| CGGC | Center on Globalization, Governance & Competitiveness (Duke University) |
| CORFO | Corporación de Fomento de la Producción (Chilean Economic Development Agency) |
| CRM | Customer Relations Management |
| CROs | Contract Research Organizations |
| CSC | Computer Sciences Corporation |
| EDS | Electronic Data Systems Corporation |
| FDI | Foreign Direct Investment |
| GDP | Gross Domestic Product |
| HP | Hewlett-Packard |
| HR | Human Resources |
| HRM | Human Resources Management |
| ICT | Information and Communication Technology |
| IDC | International Data Corporation |
| IT | Information Technology |
| ITO | Information Technology Outsourcing |
| KPO | Knowledge Process Outsourcing |
| LPO | Legal Process Outsourcing |
| MNC | Multinational Corporation |
| NASSCOM | The National Association of Software and Services Companies (India) |
| OECD | Organization for Economic Co-operation and Development |
| ORN | Offshoring Research Network |
| R&D | Research and Development |
| TCS | Tata Consultancy Services |
| UK | United Kingdom |
| US | United States |

I. Introduction

Over the past decade, the offshore services industry has experienced tremendous growth and emerged as a dynamic global sector that involves both developed and developing nations. Structural changes in the global economy precipitated by the information and communication technology (ICT) revolution have allowed emerging nations for the first time to contribute significantly to the world's services industry. No longer relegated to manufacturing and natural resource-intensive industries, developing countries now have an important opportunity to advance both their economic and social conditions. The global economic crisis has highlighted an important characteristic of the industry for developing countries: it demonstrated significant resilience to downturns due to its principle *raison d'être* to lower costs for all industries around the world and this focus leads the industry to constantly seek out lower cost destinations. This dynamic, in turn, opens up opportunities for new countries to enter the industry value chain.

The offshore services industry incorporates the trade of services conducted in one country and consumed in another, and it has transformed the way companies do business by allowing for the separation of the production and consumption of services. The scope of the industry has evolved over time and increasingly sophisticated activities are being exported. What began with the outsourcing of basic information technology (IT) services to external firms now includes a wide array of activities known as business process outsourcing (BPO), knowledge process outsourcing (KPO), and other advanced activities in the value chain such as research and development (R&D), which were previously considered core functions of the firm.

Due to cost arbitrage advantages, developing nations are leaders in many of these offshore services and the industry has become an important source for employment and economic growth around the globe. Early market entrants rapidly specialized in service areas where they have competitive advantages; as they upgraded to higher value activities, new countries joined the industry at lower points in the value chain. This provides emerging economies with an opportunity to drive sustainable growth through the expansion of the knowledge economy and to reduce their traditional dependence on manufacturing and natural resource industries.

The current economic crisis highlighted the weaknesses of economies based on commodities and sent an urgent call for structural changes in order to attain development (Bárcena, 2009). Unlike many other industries, offshore services are typically business-to-business and based on multi-year contracts, which buffer the sector to a certain extent from slumps in consumer demand and the accompanying negative macroeconomic factors. This delayed the impact of the economic crisis on offshore services, which only registered lower demand during the last quarter of 2008 and the three first quarters of 2009. This sustained growth is essential for developing economies to protect the development gains they have achieved.

The economic crisis had two key effects on the offshore services industry. First, as occurred in most industries during the recession, the *demand effect* resulted from a contraction of demand from existing customers as business slowed around the world. This effect led annual growth rates in offshore services to decrease significantly. Second, a simultaneous *substitution effect* mitigated the negative impact of demand contraction as new clients began to adopt offshoring practices in order to lower costs and improve efficiencies. The response of the offshore service

providers was to diversify both service center locations and client bases, improve cost structures and provide innovative solutions. The net result was that while demand for offshore services dipped in response to the crisis, annual growth rates remained above 15% in large developing nation providers such as India and the Philippines.

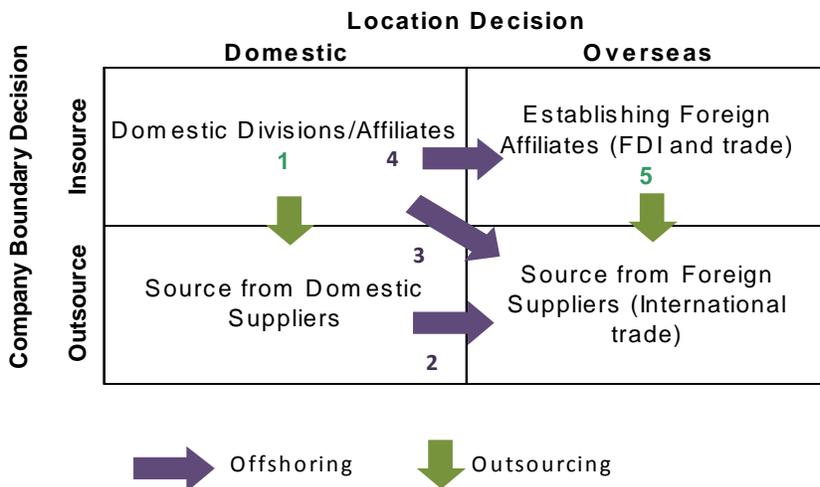
This report highlights the development of the offshore services industry using the global value chain framework to identify the opportunities for market entry for developing nations. It examines the structural changes that were taking place in business services prior to the crisis and provides an analysis of the effects of that crisis on the industry and in the different segments of the value chain.

II. The Offshore Services Industry

A. Key Concepts

The first stage in disaggregating the global services market is to categorize services based on the two dimensions of *outsourcing* and *offshoring*. These dimensions distinguish the location of and control over the organizations contracted to perform the tasks. The first dimension, *outsourcing*, is the action of contracting a special function or service from a legally separate unit (outside the boundaries of the company), rather than using the company's own internal resources and capabilities (in-house transactions). The second dimension is *offshoring*, which is the provision of a function or service beyond national, rather than firm, boundaries. This dimension is of particular importance for policy makers and firms in developing countries.¹ Figure 1 shows different business models or trajectories that may develop in the outsourcing and offshore services industry (Sako, 2005).

Figure 1. Business Models in Outsourcing and Offshore Services



Source: (Sako, 2005)

¹ While outsourcing contributes significantly to gross domestic product in developed countries, it requires internal or domestic demand to drive it. Most developing countries do not have sufficient demand for these internal services to be major factors in economic development.

The first scenario (**Arrow 1**) describes a firm's decision to outsource services locally. **Arrow 2** shows the firm's decision to outsource a service to a foreign provider instead of a domestic supplier (as in Arrow 1). **Arrow 3** shows the trajectory for firms that make the decision to outsource services to a foreign supplier. **Arrow 4** describes the firm's decision to move its service provision to a foreign affiliate or subsidiary. The final scenario, mapped by **Arrow 5**, shows the shift from service transactions with a foreign affiliate to provision by a foreign supplier. Generally, this occurs with transactions between foreign affiliates and third-party providers. The most beneficial spillovers for host economies in terms of technology and higher skilled jobs tend to occur in the process of changing from *captive offshoring* (upper right quadrant of Figure 1) to *third-party offshoring* or offshore outsourcing (lower right quadrant), as depicted by Arrow 5 (Sako, 2005).

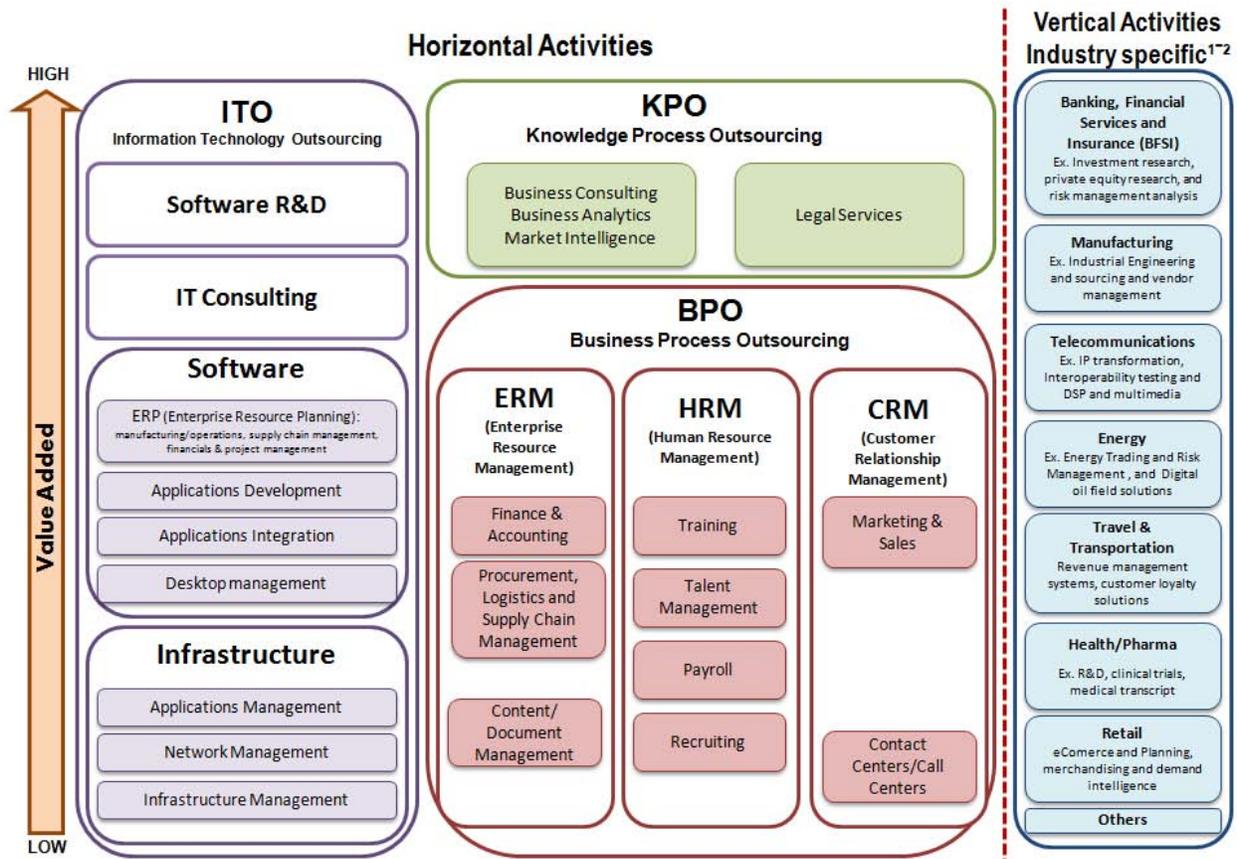
The process of choosing an appropriate business model, that is, determining a firm's geographic location and level of control, is not a simple decision and depends on several factors, including the nature of the service, size of investment required, entrepreneurship, local knowledge of the firm, and internal experience (The Boston Consulting Group, 2007). Governance patterns within this value chain are beginning to emerge based on business models and supplier selection, and future research in this area will likely provide insight into the growing power of multinational offshore providers from developing countries, such as India.

B. Classification of the Offshore Services Value Chain

The industry has evolved continuously since its inception, making efforts at categorization challenging. Despite these complexities, a fairly comprehensive, yet flexible, classification of the industry has emerged employing the global value chain (GVC) framework (Gereffi & Fernandez-Stark, 2010). The GVC framework uses firm-level analysis to determine the different stages of production of a good or service and the value of each component (Gereffi et al., 2001). For manufacturing and extractive industries based on goods, value added is determined by the difference between the cost of the inputs and outputs at each stage of the chain. In the case of the offshore services industry, measuring value is complicated by the lack of reliable company-level data and trade statistics for services (Sturgeon & Gereffi, 2009). To partially address this problem, the value of different services can be related to employee education level and work experience (Gereffi & Fernandez-Stark, 2010). By indicating the human capital required at different levels of the offshore services value chain, this classification provides decision makers in developing countries with an instrument to determine where they may be best suited to enter the value chain in order to achieve their desired outcomes.

Figure 2 below illustrates the global value chain for the offshore services industry (Gereffi & Fernandez-Stark, 2010). Using this classification scheme, it is possible to identify the varied types of offshore service activities, to show which firms participate in which segments of the industry, and in turn, to locate the most important regions of the world in the industry's development.

Figure 2. Offshore Services Value Chain



Source: CGGC, Duke University

¹ Vertical Activities- Industry specific: Each industry has its own value chain. Within each of these chains, there are associated services that can be offshored. This diagram identifies the industries with the highest demand for offshore services.

² This graphical depiction of vertical activities does not imply value levels. Each industry may include ITO, BPO, KPO and other advanced activities.

The industry is first subdivided into services that can be provided across all industries (horizontal services) and those services that are industry specific (verticals). Firms operating in the horizontal services tend to be process experts, while those in the vertical chains must have industry expertise and their services may have limited applicability in other industries. In horizontal services, all activities are related to supporting generic business functions, such as network management, application integration, payroll, call centers, accounting and human resources. In addition, they include higher value services, such as market intelligence, business analytics and legal services. For the purposes of this report, these higher value horizontal services are referred to as knowledge process outsourcing (KPO).

Within horizontal services, ITO contains a full spectrum of low, mid and high value activities of the offshore services chain, BPO activities are in the low and middle segments, while KPO activities are in the highest value segment of the chain. The value of each activity is correlated with human capital (education level), that is to say, lower value-added services are performed by people with fewer years of formal education. Call centers or routine BPO activities, for example,

can be performed by employees with just a high school diploma. Market research or business intelligence is typically carried out by employees with a minimum of a bachelor's degree, while the highest-level research and analysis is carried out by employees holding specialized masters degrees or PhDs.

This categorization can provide development agencies with an instrument for market entry based on the current educational level of their workforce. It also provides an initial blueprint for economic upgrading strategies within the industry. Developing countries that aim to provide services within certain segments of the value chain must evaluate their workforce development strategies and implement policies to build human capital for those segments, be it language skills for the call center market or promoting a doctoral program or advanced training for R&D activities in a specific industry.

C. Size of the Industry

The global offshore services industry is growing substantially and no consensus has been reached on how to collect data that corresponds to appropriate definitions of services. The rapid evolution of the industry has impeded attempts to categorize it, complicating the measurement of offshore services, and official statistics do not provide accurate quantitative assessment either (ECLAC, 2009; UNCTAD, 2009). Generally, countries do not collect data for these service exports, there are a relatively small number of trade classification codes to accurately identify service activities, and companies have little incentive to disclose this information (Sturgeon & Gereffi, 2009). In addition to this dearth of available and reliable data, the differing methodologies adopted to quantify the size of the offshore services industry have resulted in widely varying estimates from disparate sources.

Table 1 provides a list of estimates from private consulting firms, business associations and international organizations. Two clarifications must be made at this stage:

1. *Outsourcing vs. offshoring:* Some organizations, such as Gartner, have measured the entire outsourcing industry; this refers to both domestic outsourcing and offshore outsourcing. These numbers for outsourcing are generally higher since they include both outsourcing and offshoring services. Another set of organizations, such as the Organization for Economic Cooperation and Development (OECD), Boston Consulting Group (BCG), and NASSCOM-Everest, have measured only offshore services.
2. *Activities included:* This paper analyzes three industry segments: ITO, BPO and KPO, along with more specialized higher value added service activities such as engineering services and R&D. The size estimates in Table 1 differ in the segments they include. Some provide estimates for just the ITO and BPO segments (for example, the McKinsey estimate), while others include higher value added services in the BPO category (this is the case for the Gartner and BCG estimates). Generally, the high value services segment is the most difficult to quantify and it may be underrepresented since some of the activities may not be included.

The offshore services estimates are from NASSCOM, BCG and OECD, and range from US\$101 to \$157 billion in 2008.

Table 1. Global Offshore Services Market Size

| Source | | Revenues (US\$ Billions) | | | | | | Comments | |
|---------------------------------|---|--------------------------|-----------|-------|--------------|--------------|-------|---|---|
| | | Year | | | | | | | |
| | | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | | |
| OECD (2008) | Global offshore services market | 81.4 | 100.8 | 125.6 | 157.4 | 198.6 | 252.4 | Includes ITO-BPO & other high value service activities. | |
| NASSCO M (2009) | Global offshore services market | 44.25 | 59 | 78.3 | 101 | 117.5 | | Includes ITO-BPO & other high value service activities. "Derived from a 40% share of market from India." ^a | |
| BCG (2007) Based on IDC data | Global offshore services market | ITO | 19.2 | 22.7 | 26.9 | 31.9 | 37.3 | 43.2 | BPO includes other high value service activities. |
| | | BPO | 27.4 | 42.3 | 65.1 | 100.3 | 154.5 | 238.1 | |
| | | Total | 46.6 | 65.0 | 92.0 | 132.2 | 191.8 | 281.3 | |
| GARTNER (2009) | Global outsourcing and offshoring services market | ITO | | | | | 268 | | BPO includes other high value service activities. |
| | | BPO | | | | | 156 | | |
| | | Total | | | | | 424 | | |
| NASSCO M and EVEREST (2008) | Global offshoring BPO market | | | | 26-29 | | | | |
| McKinsey & Company (2006) | Global Offshoring ITO-BPO market | ITO | 16.7-19.6 | | | | | | McKinsey calculates the offshoring market potential with a range. They states that the market has captured only 10% of its full potential. ITO: \$147-178 billion (captured only 11%) BPO: \$122-154 billion (captured only 8%) From these estimates we have calculated the real market in 2005. |
| | | BPO | 9.8-12.3 | | | | | | |
| | | Total | 26.5-31.9 | | | | | | |
| A. T. Kearny (2009) | Global offshoring BPO market | | | | 30 | | | 22% of the global BPO market is offshore | |

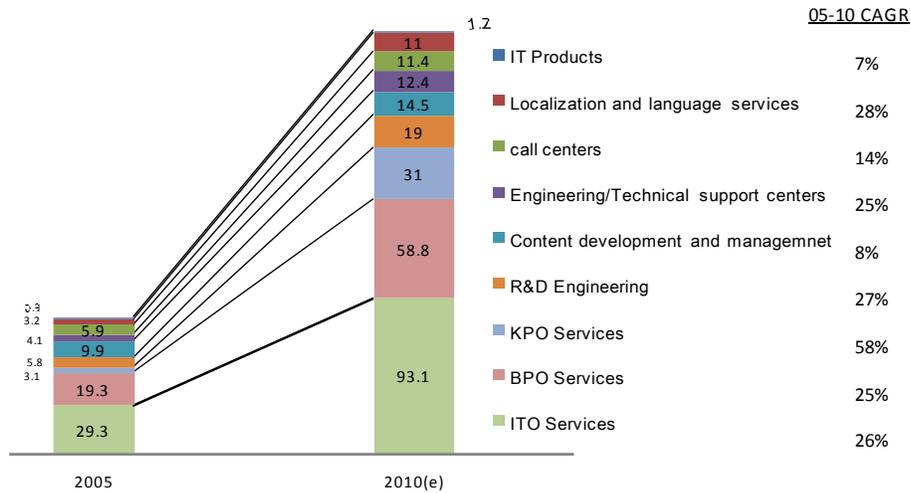
^a Based on the reports from Boston Consulting Group (2007) and the Nasscom-Everest study in 2008. BCG estimated that Indian market share was 46% in 2007, while the Nasscom-Everest estimate lies between 41% and 46% (NASSCOM, 2008).

Source: CGGC, Duke University based on (AT Kearney, 2009; Chakrabarty et al., 2006; Harris, 2009; NASSCOM, 2008, 2009; OECD, 2008; The Boston Consulting Group, 2007; Young et al., 2008).

According to OECD estimates (2008), the size of the offshore services market will reach \$252 billion in 2010. They stress, however, that growth rates will be different in each segment of the value chain (see Figure 3). The OECD study, published pre-crisis in early 2008, projected that

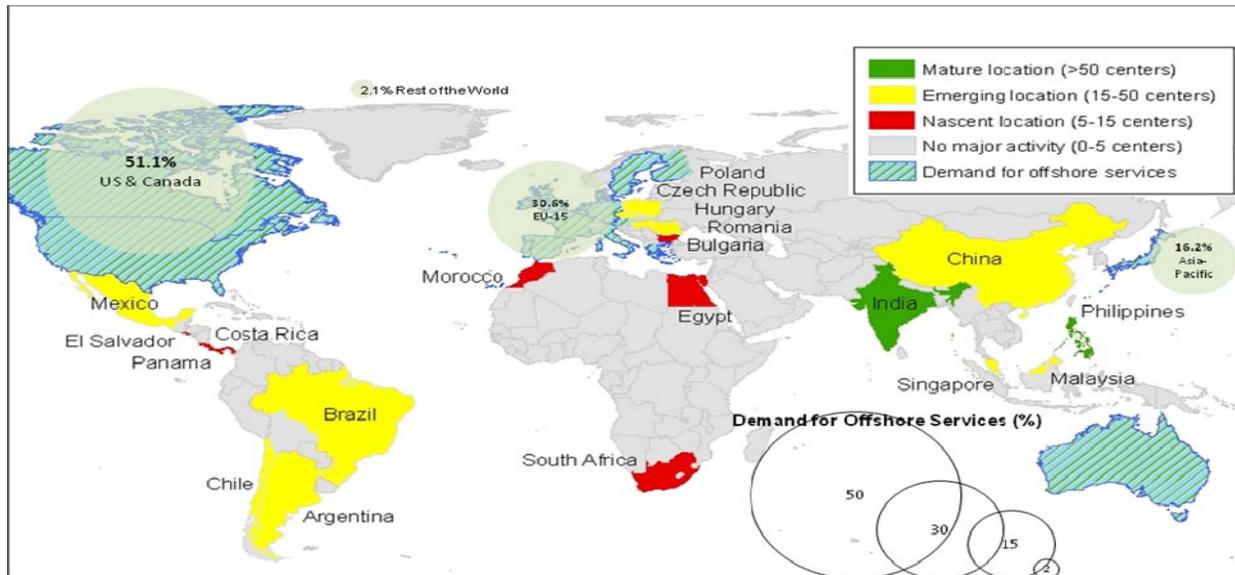
the global demand for BPO services, especially those related to call centers along with those in the financial services industry, was expected to triple between 2005 and 2010, and IT services were expected to continue growing at a similar pace. The segment for other high value service activities was expected to reach \$31 billion by 2010. This growth translates into a compound annual growth rate for the KPO segment of 58% between 2005 and 2010, much more than the expected growth rates for the demand of the BPO (25%) and ITO (26%) segments.

Figure 3. Global Demand of Offshore Services by Activity



Notes: (e) Global offshore services market, 2005-2010 (\$Bn)
 Source: (OECD, 2008).

Figure 4. The Global Supply and Demand for Offshore Services



Source: CGGC, Duke University based on data from Everest and Datamonitor.

At a country level, as can be seen in Figure 4, the most mature providers of offshore services are India and the Philippines, with over 50 centers in each country, followed by emerging nations,

including Chile, the Czech Republic and Malaysia. In addition, there are new locations that are beginning to compete in the industry, such as South Africa, Morocco and Egypt.

Table 2. Top 20 Offshore Services Providers

| # | Company | Total Sales, 2008 (US\$ Mil) | Total Employees | Total Services Sales, 2008 (US\$ Mil) | Main Services Activities |
|--------------|--|------------------------------|-----------------|---------------------------------------|--|
| 1 | IBM – US | 103,630 | 398,455 | 58,892 | Consulting, IT services, application and outsourcing services |
| 2 | Accenture – US | 23,171 | 177,000 | 23,171 | Consulting, IT and outsourcing services |
| 3 | Electronic Data Systems Corporation (EDS, now HP Enterprise Services) - US | 22,100 | 139,500 | 22,100 | IT, applications and BPO services |
| 4 | Computer Sciences Corporation (CSC) - US | 16,740 | 92,000 | 16,740 | ITO (software management) BPO in CRM, supply chain management and KPO in legal matters |
| 5 | Capgemini- France | 12,740 | 89,453 | 12,740 | Consulting, IT and outsourcing services |
| 6 | Automatic Data Processing (ADP) - US | 8,867 | 45,000 | 8,867 | BPO (human resource, payroll, tax and benefits outsourcing) |
| 7 | Affiliated Computer Services – US | 6,523 | 76,000 | 6,523 | ITO and BPO in CRM and HRM. Also e-Government |
| 8 | Logica (Formerly LogicaCMG) – UK | 6,577 | 39,525 | 6,320 | Business consulting, IT and BPO services |
| 9 | Tata Consultancy Services – India | 6,048 | 111,407 | 5,824 | Consulting, IT, engineering and BPO (includes KPO) services |
| 10 | Infosys Technologies - India | 4,717 | 105,453 | 4,533 | IT, engineering, consulting and BPO services (knowledge and legal services) |
| 11 | Wipro Technologies - India | 5,645 | 98,521 | 4,234 | Consulting, IT and BPO services |
| 12 | CGI Group - Canada | 3,673 | 25,500 | 3,673 | Consulting, IT, BPO and systems integration services |
| 13 | Hewitt Associates - US | 3,228 | 23,000 | 3,228 | Human resource consulting and outsourcing |
| 14 | Cognizant Technology Solutions - US | 2,816 | 68,000 | 2,816 | Consulting, IT and BPO services |
| 15 | Convergys Corporation – US | 2,786 | 75,000 | 2,786 | BPO (Customer Care - Call Centers) |
| 16 | Perot Systems –US | 2,779 | 23,100 | 2,779 | Consulting, IT and BPO services |
| 17 | Teleperformance Group – France | 2,605 | 102,186 | 2,605 | BPO (Customer Care - Call Centers) |
| 18 | SITEL – US | 1,700 | 66,000 | 1,700 | BPO (Customer Care - Call Centers) |
| 19 | Ceridian Corporation - US | 1,695 | 8,776 | 1,695 | Payroll services & Human Resources management solutions |
| 20 | Genpact Ltd. - India | 1,041 | 36,200 | 1,041 | IT and BPO services |
| TOTAL | | 240,210 | 1,815,519 | 192,267 | -- |

Source: CCGC, Duke University based on OneSource, companies' websites and companies' annual reports.

The supply of global services is highly concentrated among a small group of firms from a handful of countries. As shown in Table 2, 13 of these firms are headquartered in North America, four are headquartered in India, and three are based in Europe. The large global service providers operating in the offshore industry include: IBM, Accenture, EDS (HP Enterprise Services), Computer Science Corporation (CSC), and Capgemini, which are principally dedicated to serving large multinational corporations and governments (Datamonitor, 2009). All of these firms have operations in developing countries that serve as platforms for services exports. In 2007, Accenture employed more people in India than anywhere else in the world.² By 2006, IBM had 60,000 employees in India and Capgemini employees there had reached 12,000 (Dossani & Kenney, 2007).

D. Potential for Developing Countries to Enter the Offshore Services Industry

The offshore services industry is a comparatively new industry that has only emerged within the past 20 years. The ICT revolution at the end of the 20th century allowed developing countries to enter this market with great success. India and the Philippines have already reached market maturity, while countries in Eastern Europe and South America are in the early to mid stages of development. In many of these nations, offshore services have been the fastest growing industry in recent years. This has led to significant positive externalities for local economies, such as knowledge transfer, more and better jobs, access to new markets, and infrastructure improvements.

The offshore services industry provides an opportunity for many developing economies that are striving to diversify and upgrade their economic activities. The global industry is still in its nascent stages and the vast majority of its potential remains largely untapped. The McKinsey Global Institute Labor Supply Report estimates that up to 161 million jobs can be performed remotely. It states that “any task that requires no physical or complex interaction between an employee and customers or colleagues, and requires little or no local knowledge, could be performed anywhere in the world by a suitable qualified person” (McKinsey Global Institute, 2009).

Figure 5 illustrates this significant growth potential of the offshore services industry. The orange bars represent the adoption of offshore practices in the years 2003 (dark orange) and 2008 (light orange). In just 5 years (2003-2008), this industry has demonstrated rapid growth. However, the dark grey line presents the vast opportunities that still exist to offshore activities across different industries. The graph also highlights the emergence of new segments in the value chain, including industry-specific offshoring in retail banking and the health care industry.

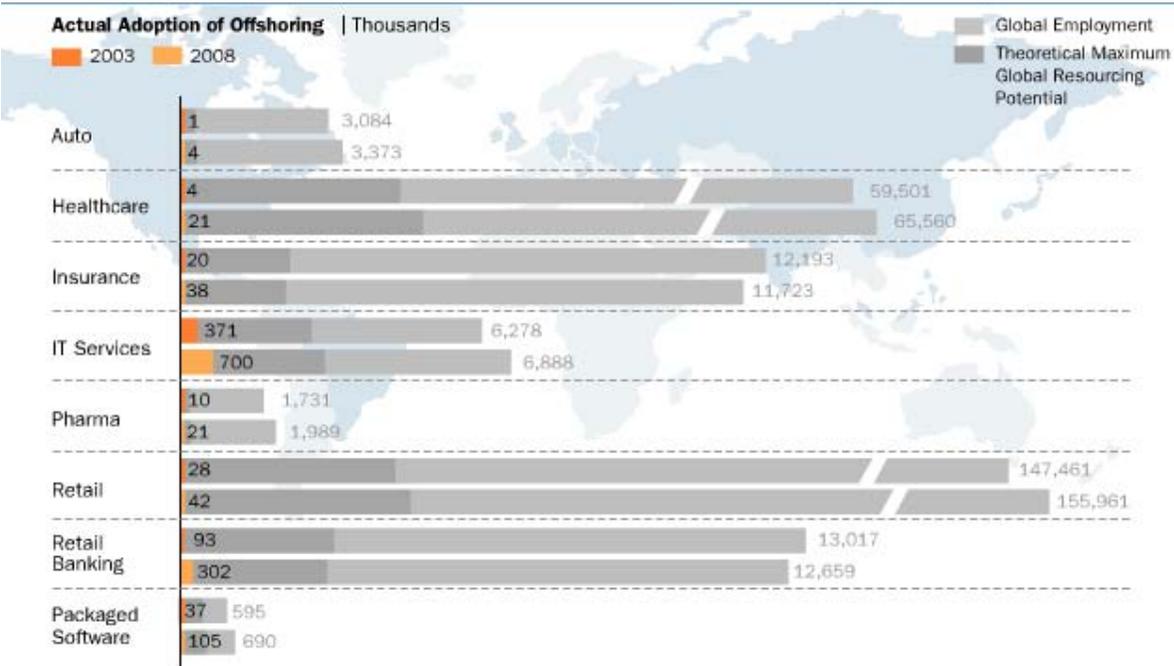
Nonetheless, global employment in offshore services had already reached 4.1 million by 2008 (McKinsey Global Institute, 2009). This growth is being driven by an increasing number of business procurement services abroad to improve their efficiency levels in the global economy, enter new markets, and gain access to strategic assets in other countries (Lopez et al., 2008).

² At the end of 2007 FY, Capgemini’s Indian operations added at least 8,000 new employees to take the figure from the current 27,000 to a new high of 35,000, surpassing for the first time the number of employees in the United States (Shah, 2007).

They are attracted to developing countries by competitive advantages, such as low human resource costs, technological skills and language proficiency (AT Kearney, 2007), as well as time zones and geographical and cultural proximity to major markets (ECLAC, 2008).

Operating in the same time zone helps to facilitate connections between countries, optimizing time and accelerating decision-making. In addition, as more sophisticated work such as new product development, R&D, and other knowledge-intensive activities are performed abroad, the supply of scientific, engineering and analytical talent offered by developing countries becomes more important (Duke Offshoring Research Network & Booz&Co., 2007).

Figure 5. Actual and Potential Adoption of Offshore Practices



Source: (McKinsey Global Institute, 2009)

* “Adoption of offshoring” assesses the current and projected level of offshoring to low-wage countries within a sector.

** “Theoretical maximum global resourcing potential” describes the percentage of a sector or function that may be performed remotely.

E. Structural Changes Facilitating the Growth of Offshore Services

As the offshore services industry continues to expand, based to a large degree on low-cost yet educated labor forces around the world, developing nations have the opportunity to emerge as important players. Structural changes in the world economy during the past decade have facilitated this explosive growth and suggest that this shift of offshore service work to the developing world will be permanent. These changes are summarized below:

1. Information technology (IT) now allows for the quick and easy transfer of information, eliminating the need for on-site operations. This has allowed many developing countries with basic IT infrastructure to enter the global economy. Today developing countries export services all over the world. India has updated its IT infrastructure and now is able to perform remotely almost every service requested.
2. Companies looking to reduce costs have unbundled their corporate functions, such as human resources management, customer support, accounting and finance, and procurement operations, and offshored these activities (Gospel & Sako, 2008). This reduces the burden of support activities and allows firms to focus on the core of their business. These activities refer mainly to IT and BPO activities. For example, many multinational corporation (MNC) customer support operations are being offshored to the Philippines.
3. In recent years, core activities also have begun to move offshore. Many firms today look beyond low cost to talent in order to drive R&D activities. For example, many pharmaceutical contract research organizations (CROs) from India and China are offering their services to giant pharmaceutical MNCs, such as Merck, Novo, Lilly and GSK among others (Gupta, 2008; Wadhwa et al., 2008). This reflects the capabilities of developing countries entering the value chain, not only at the production level but also creating the knowledge behind the products.

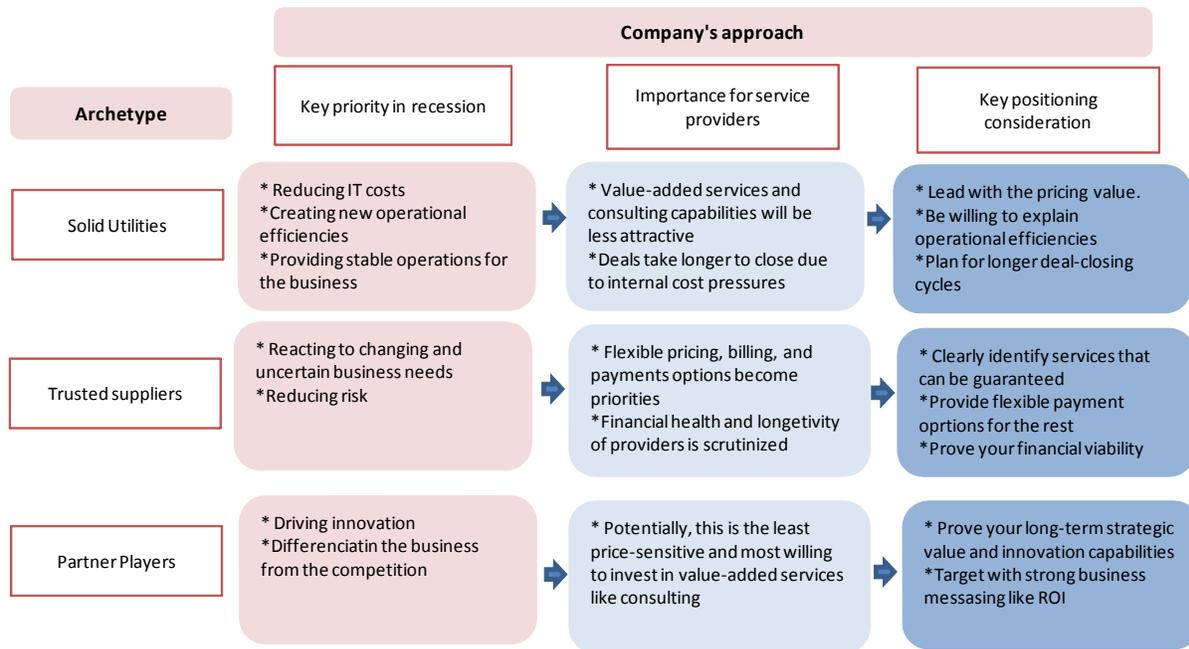
Developing countries have recognized this economic opportunity and many are actively encouraging the development of the offshore services industry. Countries are offering different services according to their skill level. For example, Chile is working to position itself as an innovation center and already one-third of the country's offshore services are in engineering services (IDC Latin America, 2009). Other countries in Latin America such as El Salvador and Honduras focus on call centers.

III. Impact of the Economic Crisis on the Offshore Services Industry

The global economic crisis has impacted almost every industry in the world. Its impact, however, has been less severe for the offshore services industry. Two opposing effects have been seen: some companies have frozen offshore contracts, while other companies have offshored additional services in order to remain competitive by lowering their costs. Perhaps most significantly, demand slowed from financial service institutions, the offshore industry's key client segment, requiring suppliers to lower costs and improve efficiency to bolster sales. These two conflicting effects are explained in section IV. Additionally, the economic crisis has affected distinct segments of the value chain to different degrees. As for horizontal activities, IT and BPO services have been affected more than KPO services. Vertical activities reflect the level of impact of the economic crisis in their respective industries. The impact of the economic crisis in the offshore services value chain is analyzed in section V. The overall effect reveals an industry that is still growing, although at a slower pace than previously and showing signs of recovery.

A recent Forrester (Andrews, 2008) report explains that companies react differently in their IT plans during an economic slowdown, depending on the model adopted in each organization. Some companies will face more cost pressure; other firms will be concerned about the cycle of the business environment or possibly encounter more pressure to innovate and be competitive in the industry. Figure 6 illustrates the different categories of firms and the strategies that companies will consider, depending on their business model (Andrews, 2008).

Figure 6. How Firms Respond to the Economic Crisis³



Source: (Andrews, 2008)

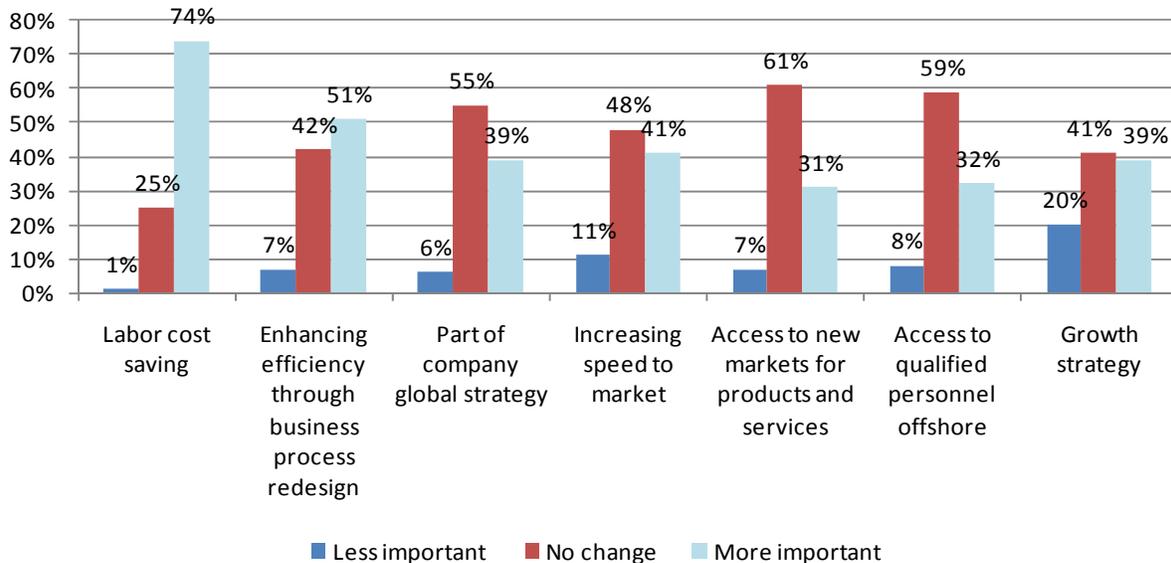
According to Duke University's Offshoring Research Network (ORN) findings, companies are continuing to implement their plans to offshore some of their functions despite the global economic crisis, and may even accelerate such strategies (Lewin et al., 2009). Figure 7 illustrates the changes identified by ORN in the key drivers of offshoring decisions as a result of the economic crisis. The results of the survey conducted in November 2008 show that the most significant driver in decision-making about offshoring is "taking out costs," in other words, labor cost savings (see Figure 7). This directly boosts the competitiveness of developing countries in the offshore services industry.

The second most important change in offshoring services reported by ORN is the decision to offshore in order to enhance efficiency by redesigning business processes and to strengthen existing organizational capabilities for managing offshoring strategies. To achieve this goal, the ORN study suggests that company-wide strategies should be developed to help increase organizational flexibility, service quality, and above all, further cost savings.

³ According to the report, "solid utilities provide available and cost-effective infrastructure, trusted suppliers add product delivery capabilities and partner players are tightly aligned with the business" (Andrews, 2008, p. 4)

Although access to qualified personnel continues to be an important driver, during the crisis this had lower relative salience compared to cost (Lewin et al., 2009). This is temporarily offsetting the search for global talent as a mayor driver for offshore services. However, the ORN study argues that the slowing demand for talent can be explained by increased unemployment fueled by the economic crisis, which has made this talent more available domestically.

Figure 7. Changes in Key Drivers of Offshoring Decisions, November 2008



Source: CGGC, Duke University based on (Lewin et al., 2009).

On the supply side, the economic crisis has also forced providers to reduce prices, which has decreased both annual hiring and salaries. The recession has increased the motivation of providers to improve the efficiency and quality of their services. Some providers have found new opportunities as a result of the crisis by engaging in innovative solutions for their clients. Providers are reevaluating their value proposition to their customers and they have been forced to develop out-of-the box services (NASSCOM Newslines, 2009).

Table 3 shows the revenues of offshore service providers, both prior to and during the economic crisis. The largest decline in provider revenues was during the April-June 2009 trimester. Almost all companies show negative growth rates compared to the same period in 2008. Accenture’s revenues dropped 16% in the period, while those of IBM declined by 13.3%. Providers from developed countries show a sharper decline than providers from India (Tata Consultancy Services, Wipro, Infosys Systems). The July-September 2009 trimester showed signs of recovery.

Many leading service providers from the developed world have more employees in emerging nations than in their own countries. This trend has accelerated during the recession. In order to mitigate the effects of the economic crisis, large providers have decided to expand their

operations to developing countries and to reduce their personnel located in rich economies. These actions will help cut company costs because salaries in emerging economies are just a fraction of salaries in developed countries. For example, IBM laid off more than 4,000 US workers in January 2009 and moved these positions to developing economies, including India, China, Brazil, Mexico, the Czech Republic, Russia and South Africa. To reduce negative social effects, the company created “Project Match” in which laid off US workers with strong employment records could be relocated to the countries mentioned above, although with local salaries and employment conditions (McDougall, 2009). Table 4 shows a selected list of offshore services providers from the United States, Europe and India that have reported lay off and hiring activities during the economic crisis.

Table 3. Offshore Services Revenues by Provider (percentage compared to the same period in the previous year)

| | Economic Crisis | | | | | | | | | |
|--------------------------------|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| | Jul-Sep 07 | Oct-Dec 07 | Jan-Mar 08 | Apr-Jun 08 | Jul-Sep 08 | Oct-Dec 08 | Jan-Mar 09 | Apr-Jun 09 | Jul-Sep 09 | |
| Accenture | 27.0% | 18.1% | 17.2% | 18.9% | 17.7% | 6.0% | -6.6% | -16.0% | -16.1% | |
| IBM | 6.6% | 9.9% | 11.2% | 12.8% | 4.9% | -6.4% | -11.4% | -13.3% | -6.9% | |
| Computer Sciences Corporation | 11.3% | 14.3% | 10.9% | 15.6% | 5.5% | -5.0% | -8.3% | -12.1% | | |
| Automatic Data Processing | 13.5% | 14.7% | 11.8% | 10.4% | 9.5% | 2.5% | -2.2% | -4.5% | -3.6% | |
| CapGemini | | 21.00% | | 14.4% | | 0.2% | | -12.7% | | |
| Logica | | 27.60% | | 16.3% | | -1.0% | | -20.1% | | |
| Affiliated Computer Services | 7.8% | 5.9% | 7.1% | 6.2% | 7.5% | 6.7% | 4.4% | 5.1% | 4.5% | |
| Tata Consultancy Services | 40.3% | 37.4% | 30.3% | 23.4% | 17.1% | 0.5% | -5.3% | -4.3% | -3.2% | |
| Wipro | 55.6% | 54.7% | 45.8% | 41.3% | 22.3% | 0.2% | -8.4% | -10.5% | -3.7% | |
| Infosys Technologies | 36.1% | 34.9% | 33.6% | 27.8% | 22.2% | 9.7% | -0.9% | -4.0% | -6.7% | |
| CGI Group | 14.6% | 15.1% | 19.0% | 13.1% | 3.3% | -9.6% | -17.8% | -13.6% | | |
| Hewitt Associates | 5.6% | 9.8% | 7.6% | 7.0% | 7.3% | -3.1% | -3.5% | -6.4% | | |
| HCL Infosystems | 26.6% | 27.7% | 13.6% | -5.5% | -8.8% | -21.9% | -19.8% | -9.5% | -10.9% | |
| Cognizant Technology Solutions | 48.0% | 41.4% | 39.7% | 32.7% | 31.5% | 25.5% | 16.0% | 13.3% | 16.2% | |
| Convergys Corporation | 0.1% | -0.9% | -0.5% | -2.5% | -3.9% | -1.4% | -3.0% | -1.0% | 13.2% | |

Source: CGGC, Duke University based on OneSource, Hoovers, companies’ websites and annual reports.

The hiring and lay off activities reported in Table 4 include changes implemented at the global level; however, hiring trends have been concentrated in the developing countries, with most retrenchments and lay-offs occurring in developed economies. For example, Accenture announced they will hire 8,000 people in India during 2010, and Wipro added 3,500 workers in India and the Philippines between 2008 and 2009. Genpact hired almost 3,000 people in Guatemala, South Africa, Philippines, Romania, Morocco, India and Poland during 2009, and the company is planning to hire an additional 10,000 workers in early 2010. On the other hand, in November 2009, Logica, the British offshore services company, laid off 2,200 of their 40,000 labor force during 2008, all of the retrenched workers were based in the United Kingdom. Some of the growth effects noted for these leading companies reflect the acquisition of a large number of small companies, absorbing additional employees. This consolidation is one of the main effects of the economic crisis and is expected to continue within 2010.

Table 4. Selected Offshore Services Providers' Hiring and Lay Off Actions during the Economic Crisis

| Company | When | Laid off | Hiring | What | Where |
|---|------------|----------|--------|---|---|
| Accenture United States (Ranking: 2) | Mar 2009 | 500 | | Crisis effect | Manila, Philippines |
| | Aug 2009 | | 100 | Re-hiring part of the people laid off | Philippines |
| | Aug 2009 | 300 | | Crisis effect and restructuring | Worldwide |
| | Oct 2009 | | NA | Acquisition to serve new sector | US |
| | Feb 2010 | | NA | Acquisition | Rio de Janeiro, Brazil |
| | 2010 | | 8000 | | Mostly in India |
| CSC United States (Ranking: 4) | Late 2008 | | 20 | | India |
| | Nov 2008 | | 5 | Acquisition to serve local customers | Tianjin, China |
| | Early 2009 | 98 | | | East Greenbush, US |
| | Aug 2009 | | 550 | Acquisition to serve local customers and strengthen existing sector | Brazil |
| | Sept 2009 | | 65 | New center to offer shared services | Albany, US |
| Capgemini France (Ranking: 5) | April 2009 | 56 | | Layoff of managers | Irving, US |
| | May 2009 | 100 | | Layoffs of middle management | Chennai, India |
| | Jun 2009 | | 45 | New center to perform IT Help Desk Support and Business Continuity work | Iasi, Romania |
| | Nov 2009 | 85 | | Layoffs of middle management | Dallas, US |
| | Nov 2009 | | 10 | New center | Bangalore, India |
| | Gen 2010 | | 200 | New BPO to serve local customers | Katowice, Poland |
| Logica UK (Ranking: 8) | Apr 2009 | | NA | New center on International Utilities Competence Center | Portugal |
| | Oct 2009 | | NA | New center on ITS-based solutions | Chennai, India |
| | Nov 2009 | 2200 | | Laid off for restructuring | UK |
| Wipro India (Ranking: 11) | Sept 2008 | 1000 | | Laid off for restructuring | India |
| | Dec 2008 | | 2500 | Acquisition to follow customer | India |
| | 2009 | | 1000 | New center | Philippines |
| | Q3 2009 | 630 | | | |
| | Nov 2009 | | 100 | New center, IT & BPO | Chengdu, China |
| | Jan 2010 | 85 | | Layoffs in telecom R&D sector | Finland |
| Genpact India (Ranking: 20) | 2009 | | 2400 | New center | Guatemala, South Africa, Philippines, Romania, Morocco, India |
| | Mar 2009 | | 500 | New center to serve customers in EU | Lublin, Poland |
| | Oct 2009 | | 70 | New ROC center | Hyderabad, India |
| | 2010 | | 10,000 | | Worldwide |
| | Feb 2010 | | 1,200 | Acquisition | India and US |

Note: Ranking refers to the top 20 offshore services companies (see Table 2)

Source: CGGC based on company websites, company press releases, news articles and reports from consulting firms.

Another important effect of the economic crisis in the offshore services industry has been the decline in attrition rates.⁴ Attrition is one of the most pressing problems of the industry in India and it is also affecting the market in the Philippines. In the Philippines, a survey carried out in mid-2009 revealed that 79% of the offshore services providers had noted attrition rates as the “same”, “decreasing” or “decreasing significantly” (Philippine Daily Inquirer, 2009). During the crisis India saw a reduction in the attrition rates, to level similar to those of three years ago. According to a survey by IDC and Dataquest, India’s average IT sector attrition rate decreased from 18% to 15% in 2009 (Business Standard, 2010). For last quarter of 2008, the attrition rates for TCS, Wipro and Infosys were 11.9%, 11.9% and 11.8% respectively. Just one year earlier, the rate was 11.5%, 20.10% and 13.7% respectively for the three IT majors (AbhiSays.com, 2009). There was general consensus amongst senior management from the Indian offshore services providers that the highlight of the difficult 2008 crisis year was the decline in attrition rates. Alok Aggarwal, Chairman and Co-founder of Evalueserve, noted that “attrition in the offshore outsourcing industry came down significantly and Indian employees became more realistic about their expectations and about their careers. The current expectations will be able to provide a more sustainable, long term growth for the Indian offshore-outsourcing industry” (BPOWatch India, 2008).

Overall, the economic crisis has had varied effects on offshore services. Some clients have frozen contracts, while others have demanded additional services in order to reduce costs. Providers have responded to the changing demand by employing a number of different strategies to reduce their own costs, including lowering salaries, opening offices in cheaper locations and finding innovative solutions to enhance efficiency. As a result, even more activities are being moved to developing countries, both from developed nations to India, and also from India to other developing countries, due to labor arbitrage (substituting cheaper workers for more expensive ones) and the search for talent. The structural changes that facilitated the initial development of the offshore services industry have accelerated during the economic crisis and these changes will likely become entrenched in future years.

IV. Economic Crisis: Substitution Effect Versus Demand Effect⁵

During this global economic crisis the offshore services industry has suffered two conflicting effects. The first is the substitution effect in which activities are relocated to cheaper locations leading to the growth in offshoring, while the demand effect refers to lowered demand due to the recession’s effect on the industry’s clients, resulting in a decline of offshoring services.

⁴ Attrition rates refer to labor turnover, which is the number of employees who leave the company in a given year.

⁵ As mentioned previously, the offshore services industry is a recent global phenomenon and has been evolving rapidly. There are no official data available at a global level. The economic crisis analysis in this section is based on country and company cases that support the main findings.

A. Substitution Effect

In a global competitive environment, companies use different strategies to reduce costs. Unbundling activities and relocating them to countries that have lower labor costs has gained popularity in the past 10 years. In other words, there has been a substitution effect, moving activities from high cost locations to lower cost locations. This phenomenon has continued during the economic crisis. Indeed, some countries have seen acceleration in the offshore services industry.

According to the A.T.Kearney's Global Services Location Index 2009, the economic slowdown may increase the number of clients that use offshoring services. In the search for cost reductions, many companies find offshore services an attractive alternative. The report also notes that new offshore operations tend to be more efficient because they are not constrained by the bureaucracy in place in onshore facilities (AT Kearney 2009).

A recent study related to human resources (HR) outsourcing published in February 2009 reveals that HR departments will maintain their strategies towards outsourcing HR services despite the economic crisis. One-third of the companies surveyed indicated that they were more inclined to outsourcing compared to two years ago because of the reduction in costs and improving efficiencies. An earlier version of the same survey (2006) showed that the most important activity for HR managers was to "attract, retain, and grow talent, compared to the 2009 survey which reveals that the number one pressure refers to 'reduce operating costs' " (Hewitt Associates, 2009). US consulting firm Deloitte, for example is planning to hire 15,000 people in India over the next three years. The company's global chief executive, Jim Quigley, explains: "the global economic crisis is also an opportunity to expand and acquire assets at attractive valuations" (Current IT Market, 2009a).

A country case example of the substitution effect is the Philippines, which has continued growing despite the global financial crisis. The Philippines has seen accelerated growth in offshore services in the past three years. According to the Business Processing Association-Philippines (BPAP), the offshore services industry in 2006 generated approximately US\$3.3 billion in revenues and employed more than 235,000 people. The Association estimates that by the end of 2010, the industry will reach US\$13 billion and will employ close to 1 million people (Business Processing Association of the Philippines, 2007).⁶

A key factor explaining this sustained growth is that the services being carried out in the Philippines are considered non-discretionary spending, that is, they are services that are essential to maintaining a company's business operations (Nair, 2010). The country is now one of the leading destinations worldwide for call centers, as well as finance and accounting outsourcing. According to the Call Center Association of the Philippines, the call center industry generated US\$ 5 billion in revenues in 2009 and employed over 275,000 people (Villafania, 2009). The capital city, Manila, has already become the world's largest city destination for BPO activities (Vashistha & Nair, 2010). Its large workforce, low costs, and significant English-speaking

⁶ This estimates were prepared before the economic crisis.

population make it a key destination for these services. A number of Indian providers have opened up call center operations in the Philippines during the past two years, to diversify their operations base and further lower costs (Nair, 2010).

The offshore services industry in the Philippines began less than 10 years ago. During 2004 to 2007, the industry showed growth rates on the order of 50% (see Table 5). In 2008 and 2009 the IT-BPO services growth rate declined to 24% and 18%, respectively. However, comparing the same indicators with India (see Table 6), the Philippines presents higher growth rates in both industry revenues and employment. In 2009, the growth rate for offshore services employment in the Philippines was 19%, while in India it was only 11%.

Table 5. Philippines IT – BPO Industry, 2004-2009

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|--|--------|---------|---------|---------|---------|---------|
| Annual GDP Growth (%) | 6.10% | 5.10% | 5.40% | 7.10% | 3.80% | 0.90% |
| Revenues in Offshore Services Industry: Philippines (US\$ billions) | 1.5 | 2.2 | 3.3 | 4.9 | 6.1 | 7.2 |
| Growth Rate Offshore Services Industry | | 47% | 50% | 48% | 24% | 18% |
| Offshore Services Employment | 101,00 | 163,000 | 236,000 | 300,000 | 372,000 | 442,000 |
| Growth Rate Offshore Services Employment | | 61% | 45% | 27% | 24% | 19% |

Source: National Statistical Coordination Board; Business Processing Association of the Philippines

The past two years have confirmed the consistent rise of the Philippines as a leading BPO destination. In the opinion of some market experts, the crisis has accelerated the takeover of India's back office supremacy by the Philippines (SiliconIndia, 2009). In 2007, India had over 300,000 call agents, while the Philippines had just half of that. Today, India and the Philippines have equal strength with 350,000 employees each in voice BPO (The Economic Times, 2010).

According to the result of a recent survey of BPO providers conducted by the Business Processing Association of the Philippines and Outsource2Philippines, 49% of executives say that in 2009-2010 they will expand their headcount by at least 11% and 33% of the respondents confirm that the crisis has accelerated their service expansion process. The survey also reveals that only 5% declared that the effect of the crisis was “very significant.” Finally, the poll shows that some innovative firms are identifying new opportunities as a result of the downturn (Philippine Daily Inquirer, 2009; TeamAsia, 2009). Overall, it is estimated that the BPO industry in the Philippines will create 90,000 new jobs during 2010 (ABS-CBN news.com, 2010).

Many of the leading companies in the BPO industry, such as Genpact, Wipro BPO, Intelenet, Aegis BPO and Firstsource, are scaling up their investments in the Philippines. Wipro BPO, one of the largest Indian service companies that is specialized in IT and BPO, set up a new BPO center in Cebu City, the Philippines that hired 1,000 workers (SiliconIndia, 2009). Similarly Convergys opened three new call centers employing 3,000 workers in April 2009 (TeamAsia, 2009).

Chile has also seen an increase in its offshore service operations during the economic crisis. Prior to 2000, the offshore services industry in Chile was insignificant. Yet by 2008, the country registered close to US\$1 billion in service exports (IDC Latin America, 2009). Today the Chilean offshore services industry includes companies in all areas of offshoring: ITO, BPO and KPO as well as industry-specific services that cannot be easily applied in other industries (Gereffi & Fernandez-Stark, 2010).⁷ ITO and BPO services have grown considerably, together accounting for over one-third of offshore exports and 12,300 jobs (IDC Latin America, 2009).

The Chilean industry has not been severely affected by the economic crisis, and the sector continues to grow with several new projects being established in the country during 2009. Of particular importance was the announcement in September, 2009 that General Electric was opening a new IT center in Valparaiso, Chile that will hire 1,000 workers (El Mercurio, 2009). More offshore services providers are planning to set up new projects including Tata Consulting Services (TCS), McAfee, UST Global and Konecna (Castillo, 2010).

B. Demand Effect

A second, and in some ways contradictory, effect of the economic crisis is a general decline in the demand for offshore services by existing clients. This is the first time that the industry has faced a slowdown; however, it still presents positive growth rates. A key factor in the decline has been the slack demand from the financial services sector, which was severely affected by the economic crisis. The financial sector has consistently been the largest buyer of offshore services, representing 32% of demand in 2008 (Technology Partners International, 2008). The slowdown in demand is the result of a number of factors, including frozen offshore service contracts, reduction in the scope of the contracts, and pressure on pricing (NASSCOM Newslines, 2009). The immediate consequences for providers have been the need to lay off workers, reduce salaries and freeze hiring.

One of the most affected countries in terms of decreasing demand is India. Due to national characteristics that are key for offshore industry growth, such as low costs, strong technical and language skills, vendor maturity, supportive government policies and an effective industry association, India has become the global leader of offshore services with approximately 45% market share (NASSCOM, 2008). The industry has evolved steadily, upgrading its activities from lower value added activities to more advanced activities such as R&D services. Table 6 shows continuous positive growth rates for Indian offshore services, which grew fourfold in five years; in 2004, revenues were US\$ 12.9 billion, while in 2009 revenues were estimated to reach US\$47 billion. By 2008, offshore services employed over 2 million people, with an indirect job creation of about 8 million (NASSCOM, 2009).

⁷ For an in-depth description and analysis of the global offshore services value chain, as well as the evolution of each segment of the industry in Chile, see (Gereffi & Fernandez-Stark, 2010) and (Fernandez-Stark et al., 2010)

Table 6. Offshore Services Industry Indicators in India, 2004-2009

| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 E |
|--|---------|-----------|-----------|-----------|-----------|-----------|
| Revenues in Offshore Services Industry: India (US\$ billions) | 12.9 | 17.7 | 23.6 | 31.3 | 40.4 | 47 |
| Growth Rate Offshore Services Industry | | 37% | 33% | 33% | 29% | 16% |
| Indian GDP (current US\$ billions) | 700.9 | 810.2 | 914.9 | 1,176.9 | 1,217.5 | 1,182.2 |
| Offshore Services share of Indian GDP | 1.8% | 2.2% | 2.6% | 2.7% | 3.3% | 4.0% |
| Offshore Services Employment | 830,000 | 1,058,000 | 1,293,000 | 1,621,000 | 2,010,000 | 2,236,614 |
| Growth Rate Offshore Services Employment | | 27% | 22% | 25% | 24% | 11% |

Source: CGGC, Duke University based on data from NASSCOM and the World Bank.
E: NASSCOM Estimates

There was an abrupt slowdown in the offshore service industry's growth rates from around 30% during 2004-2008 to 16% in 2009. This slowdown has also affected the industry's employment. While aggregate employment reached 2.3 million in 2009 (NASSCOM, 2009), employment growth rates slowed from an average of 25% between 2004 and 2008 to 11% in 2009 (NASSCOM, 2009). One of the groups in India most affected by this economic crisis is the new IT graduates. More than half of the 300,000 graduates were left unemployed in 2009. The oversupply of workers has also impacted the entry-level salaries, which have declined up to 30% (Current IT Market, 2009b).

During the crisis, Tata Consultancy Services, the largest Indian offshore services provider, announced 1,300 layoffs, approximately 1% of its total workforce. Additionally the company has increased working hours to 45 hours per week from 40 hours (Finance Trading Times, 2009). Despite these effects, the company is already showing recovery signs and is planning new hiring in 2010 (Current IT Market, 2009b). This is also true for other Indian companies such as Wipro and Cognizant that have begun offering promotions and salary increases. Infosys is also experiencing a recovery, but its policy is to wait for greater stability before offering promotions and salary increases (Indiatimes Infotech, 2009).

The Indian industry began to show signs of recovery in the last months of 2009. A recent report from the offshore services Indian association – NASSCOM -- explains that the first half of 2009 was extremely difficult, with business paralysis and the clients requesting immediate cost reductions. In the second half on the year, clients appeared to be in a different position. They were requesting longer-term cost reduction initiatives moving forward and demonstrating a willingness to analyze new projects and initiatives. The Indian offshore services industry is expecting this slowdown to end during 2010 (NASSCOM Newslines, 2009).

After this economic downturn, the industry will likely adjust to the new business environment. The most important changes in India's offshore services as a result of the crisis (Nair, 2010; NASSCOM Newslines, 2009) can be summarized as:

- Greater services specialization, with companies covering niches needs

- Industry consolidation
- New demand from vertical services
- Expansion into new locations
- Payment based on performance.

V. The Effect of the Recession on the Offshore Services Value Chain

The economic crisis has impacted all the segments of the offshore services value chain, especially vertical offshore activities, in different ways.⁸ Sectors negatively impacted by the global recession generally faced lower demand for offshore services. In other cases, clients in industries less affected by the recession show similar demand patterns as before the financial downturn, and in some cases there is demand for even more services.

The impact of the crisis also depends on the maturity of the industry in different countries, making it difficult to generalize across the value chain. For example, India saw similar declines in both IT and BPO activities, while the Philippines IT services sector was more affected than the BPO segment in which the country has more experience. In this section, two case studies of India and the Philippines, the two leading countries in these segments, provide further analysis of the impact of crisis on the value chain.

In general, KPO services have been more insulated from the economic downturn. Business intelligence and legal services continued to perform well during the crisis. According to Gartner's annual EXP Worldwide Survey-2009, covering 1,500 Chief Information Officers (CIOs) worldwide, Business Intelligence was the top investment priority. This has been the top priority for four consecutive years and companies in the sector continue to grow, taking advantage of new opportunities afforded by the crisis. For example, MAIA Intelligence, an Indian Market Intelligence provider, launched affordable reporting and analytics solutions for small and medium enterprises. In the past this service was only available for large enterprises and MAIA Intelligence found the niche and opportunity to offer this innovative product (NASSCOM Newslines, 2009).

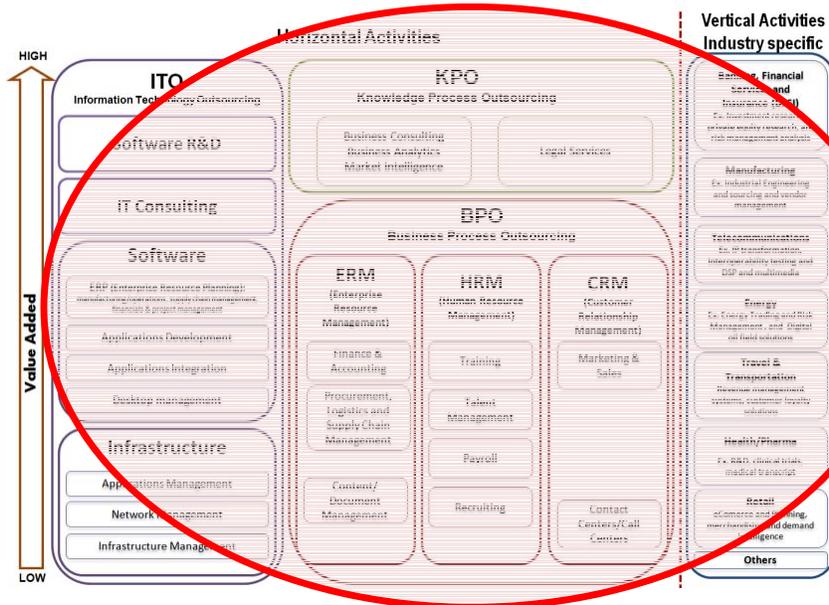
Legal services, referred to as legal process outsourcing (LPO) in the value chain, are still mostly limited to India. The annual growth rate slowed from 40% pre-crisis, initially, reaching a still very promising growth of 28% in 2008 and then in 2009 becoming just 16% in comparison with the previous year (India PRwire, 2009). The two largest companies in the segment, Mindcrest and CPA, saw positive growth during the crisis, likely the result of early and rapid consolidation of the still infant industry segment, with 20% of the providers in India exiting the industry (BPOWatch India, 2008). Leading companies expect the sector to expand significantly in 2010 due to the tremendous cost-saving opportunities afforded for law firms (Crain's Chicago Business, 2010).

⁸ See Figure 2 for a diagram of the offshore services value chain.

A. The Recession's Effect on National Offshore Services Value Chains

The **Indian** offshore services industry faced the crisis with an already mature industry with strengths in several key areas: IT and BPO services, engineering services, R&D, and software products. Prior to the crisis, the industry presented a sound upgrading trajectory. The country entered the industry offering IT services, moving to BPO operations and later added KPO activities. Additionally, the Indian industry provides sophisticated services to vertical industry segments, including R&D services. As seen in the Figure 8, India is covering the entire offshore services value chain.

Figure 8. India Offshore Services Industry Value Chain



Source: CGGC, Duke University

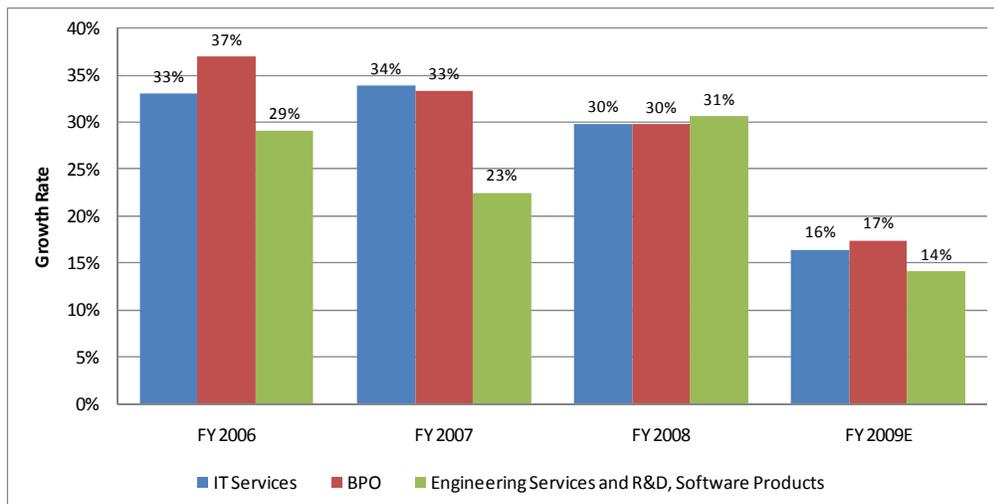
The IT sector accounts for 57% of the total services, BPO activities 27%, and engineering services, R&D, and software products represent 16%. These market shares have been constant since 2005 and the economic crisis did not impact the proportions (see Table 7 and Figure 9).

Table 7. India Revenues and Percentage Offshore Services Industry

| | FY 2005 | | FY 2006 | | FY 2007 | | FY 2008 | | FY 2009E | |
|---|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|
| | Revenue (USD bn) | % of total Revenue | Revenue (USD bn) | % of total Revenue | Revenue (USD bn) | % of total Revenue | Revenue (USD bn) | % of total Revenue | Revenue (USD bn) | % of total Revenue |
| IT Services | 10 | 56% | 13.3 | 56% | 17.8 | 57% | 23.1 | 57% | 26.9 | 57% |
| BPO | 4.6 | 26% | 6.3 | 27% | 8.4 | 27% | 10.9 | 27% | 12.8 | 27% |
| Engineering Services and R&D, Software Products | 3.1 | 18% | 4 | 17% | 4.9 | 16% | 6.4 | 16% | 7.3 | 16% |
| Total | 17.7 | 100% | 23.6 | 100% | 31.1 | 100% | 40.4 | 100% | 47 | 100% |

Source: NASSCOM

Figure 9. India Offshore Services Industry Growth Rate, 2006-2009



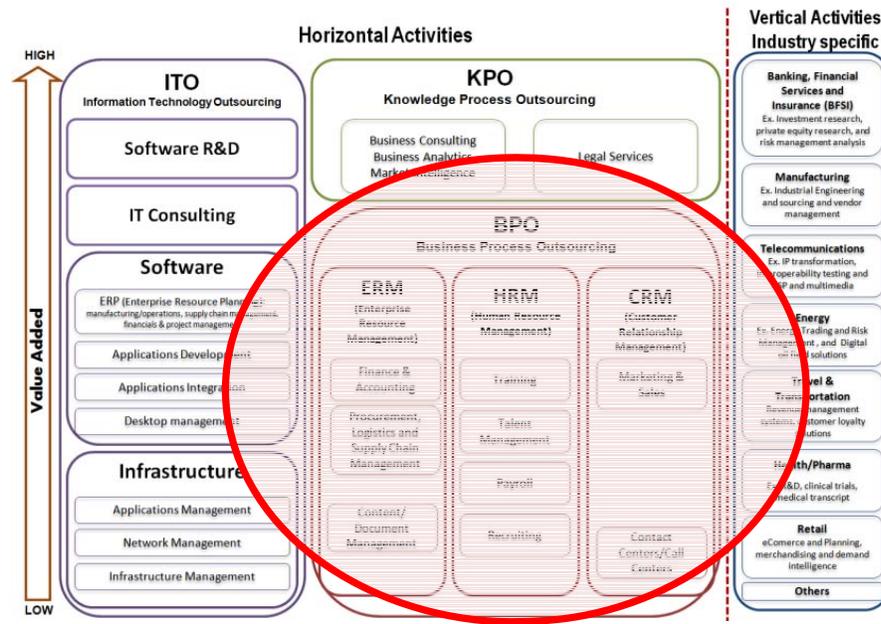
Source: NASSCOM

Figure 9 shows that almost every Indian segment of the offshore services industry saw a decline in demand in 2009. The IT services segment had growth rates equal to or higher than 30% during the period 2006-2008, but during the economic downturn, the growth rate decreased to 16%. BPO activities follow a similar pattern, experiencing growth rates over 30% annually and decreasing to half of that rate in 2009. The third category, “engineering services and R&D, software products,” based on discretionary spending projects, is subject to greater fluctuation in demand and saw its growth shrink slightly more than the other segments. This is a category that combines two completely different activities, “engineering services and R&D” and “software products.” Offshoring of engineering and R&D services have shown strong growth in the past two years, leading one to assume that the fluctuations represent changing demand for new software products.

In the Philippines the industry is concentrated in BPO activities (see Figure 10). In 2009, revenues in this segment increased by 22% with respect to the previous year. The KPO segment increased by 35% and similar trends are expected for 2010 (BusinessMirror 2010). According to

the Business Processing Association of the Philippines (BPAP), 70,000 jobs were created in 2009 in the BPO sector alone. The IT sector, on the other hand, has declined by 5.5%, while revenues for other activities such as engineering services outsourcing and transcription were unaffected by the crisis (BusinessMirror, 2010).

Figure 10. Philippines Offshore Services Industry Value Chain



Source: CGGC, Duke University

B. The Recession's Effect on Vertical Activities

As mentioned earlier, Banking, Financial Services and Insurance (BFSI) was the economic sector most affected by the global recession. It is also the industry that uses the highest percentage of offshore services. In 2008, BFSI represented 41% of the total Indian offshore services market (NASSCOM, 2009). The downturn of the mortgage market and related financial markets hit firms in the sector hard, shrinking demand for their services; as a result, BPO revenue from these sectors became exposed and vulnerable (Gartner, 2009). At the same time, on top of a decline in demand for BPO services, these firms cut back on their IT spending. "Financial institutions in Europe and the US have reduced their outsourcing activities sharply in the wake of the financial crisis. By one account, they have cut the volume of newly awarded IT outsourcing contracts by nearly 30% in 2008 compared to the previous year," explain Deutsche Bank economist Thomas Meyer (Meyer, 2009).

According to Gartner, the decrease in demand for offshore services in the BFSI industry is also the result of in-sourcing strategies. The consolidation of the banking industry as a consequence of the crisis has resulted in a negative impact on the offshore services sector. A number of financial services firms merged, with previously outsourced processing being absorbed by internal shared-service centers. This was an important strategy to employ existing internal human resources to avoid even more widespread lay offs (Gartner, 2009).

Offshore services providers that serve the BFSI segment thus saw demand for their services decline and clients requested the renegotiation of contracts. In order to respond to client demand, providers reduced internal costs, reorganized production and also cut wages. For example, TCS, India's largest exporter of financial services, reacted to the crisis by reducing salaries by 1.5% and cutting new hires from 35,000 to 30,000. Similarly, Infosys reduced hiring by 10,000, to just 25,000 new recruits, far below their pre-crisis hiring estimates (Business-In-Asia, 2008). However, this trend appears to be temporary; as soon as economic expectations improve, the companies are likely to increase salaries again. In early 2010, TCS, Infosys and Wipro announced wage increases of 8 to 12% (Business Standard, 2010).

However, a number of providers in the sector responded to the crisis with a different approach based on innovation and diversification of the product portfolio. FIS, for example, is one of the world's largest providers of banking and payments technology, and the US banking industry accounts for 67% of its total client base (ABS-CBN news.com, 2010). This American company consolidated its market position by acquiring a key competitor, Metavente and diversifying its client base (CBR News, 2009). It opened a facility in Manila, Philippines with approximately 1,000 workers (ABS-CBN News, 2010) and made new investments to provide innovative and quality services. One such innovation, HORIZON,⁹ which was released during the crisis, was a best-seller in 2009, attracting many long-term contracts with large financial institutions (FIS Press Release, 2010) and contributing to the flat growth of overall revenues with respect to 2008 despite the crisis.

Other sectors have been not affected significantly by the crisis, and some are even demanding more services. For example, the healthcare industry is demanding more IT services from India due to the increased focus on public health and attempts to make healthcare and health insurances affordable to all (NASSCOM, 2009). Medical transcription services have also expanded during the crisis period, especially in the Philippines. Myla Reyes, the President of the firm Total Transcription Services in the Philippines, explains that, "as a cost-cutting measure, more clients tend to 'shop around' for medical transcript service providers outside the US. This gives us an advantage as one of the destinations of choice in providing this type of service" (TeamAsia, 2009).

VI. Conclusions

While the offshore services industry has grown tremendously over the past decade, it is still considered a nascent industry and its vast potential remains largely untapped. Companies looking to improve their competitiveness continue to externalize many of their activities, not only back office operations, but their core activities as well, such as R&D. The recent demand for these higher value added activities indicates that few services will be retained exclusively in the developed world, and that the industry growth will continue to be strong in future years.

⁹ HORIZON is a core account processing solution for financial institutions. It offers financial reporting capabilities, transaction processing and relationship management technology to help banks gain a more comprehensive view of their customers.

The 2008-09 economic crisis has been the first event that has tested the industry, and it has demonstrated marked resilience. The recession forced providers to upgrade and improve their services, increasing both efficiency and competitiveness for clients. The economic downturn created only a small inflection in the industry. The two conflicting effects mentioned in the paper (the substitution effect and the demand effect) are finding a positive reconciliation in 2010. The demand for offshore services (the demand effect) continues to increase and is expected to soon reach similar growth rates as in the pre-crisis years. The substitution effect will be even stronger in the future, as new sources of demand emerge from industries with limited current participation in the sector and as suppliers gain a greater degree of specialization. Increased growth and industry consolidation will, in turn, drive expansion to new locations, creating further opportunities for developing countries.

Offshore services is one of the few global industries where some developing nations have a real competitive advantage over the developed world, owing to their low cost and educated labor force. Developing countries with a strong educational infrastructure thus have an important opportunity to enhance their economic development with this industry. Looking ahead, there is still room for new economies to emerge as offshore destinations. More activities will be offshored and more talent will be sought. This presents a great opportunity for developing countries to continue upgrading their economies to offer higher value added activities that in the past were only reserved for developed nations.

Bibliography

- AbhiSays.com (2009). IT Attrition Rate has Gone Down in India. Retrieved March 3, 2010, from <http://abhisays.com/software-companies/it-attrition-rate-has-gone-down-in-india.html>. January 31.
- ABS-CBN News (2010). Financial BPO Sets Up Shop in Philippines. Retrieved March 2, 2010, from <http://www.abs-cbnnews.com/business/02/17/10/financial-bpo-sets-shop-philippines>. February 17.
- ABS-CBN news.com (2010). BPO Targets 90,000 More Jobs in 2010. Retrieved March 8, 2010, from <http://www.abs-cbnnews.com/business/02/22/10/bpo-targets-90000-more-jobs-2010>. February 22.
- Andrews, Christopher. (2008). Selling IT Services in an Economic Downturn. When Economic Conditions Are Poor, Segmentation and Positioning Matter More Than Ever. Cambridge, MA: Forrester Research, Inc.
- AT Kearney. (2007). Offshoring for Long-Term Advantage. The 2007 A.T. Kearney Global Services Location Index. Chicago, IL: A.T. Kearney.
- . (2009). The Future of Outsourcing in Latin America. El Salvador: AT Kearney. April 23.
- AT Kearney (2009). Geography of Offshoring is Shifting. Retrieved March 3, 2010, from <http://www.atkearney.com/index.php/News-media/geography-of-offshoring-is-shifting.html>. May 18.
- Bárcena, Alicia. (2009). Competitividad: Visión de Organismos Regionales. Comisión Económica para América Latina (CEPAL). Conference: Foro de Competitividad de las Américas III, Santiago, Chile. September 28-29.

- BPOWatch India (2008). Best of 2008 and Challenges for 2009. Retrieved March 5, 2010, from http://www.bpowatchindia.com/BPO_special_features.html
- Business-In-Asia (2008). Business Process Outsourcing (BPO) Hitting a Speed Bump in Asia as a Result of Financial Crisis. Retrieved March 7, 2010, from http://www.business-in-asia.com/news/business_process_outsourcing.html
- Business Processing Association of the Philippines. (2007). Offshoring and Outsourcing Philippines: Roadmap 2010: Business Processing Association of the Philippines. http://www.bpap.org/bpap/publications/bpap_roadmap.pdf.
- Business Standard (2010). After Two-Year Lull, Top Indian IT Firms Plan 8-12% Salary Increases. Retrieved March 8, 2010, from <http://www.business-standard.com/india/news/after-two-year-lull-top-indian-it-firms-plan-8-12-salary-increases/387460/>. March 4
- BusinessMirror (2010). RP's BPO Revenue Grows 19% in 2009. Retrieved March 7, 2010, from http://www.businessmirror.com.ph/index.php?option=com_content&view=article&id=21636:rps-bpo-revenue-grows-19-in-2009&catid=23:topnews&Itemid=58. February 10.
- Castillo, Mario. (2010). Offshore Services Industry-CORFO, Chile. Personal communication with CGGC research team. February 18.
- CBR News (2009). FIS to Acquire Metavante: Competitive Dynamics and Implications. Retrieved March 2, 2010, from http://enterpriseapplications.cbronline.com/comment/fis_to_acquire_metavante_competitive_dynamics_and_implications_090409. April 09
- Chakrabarty, Sujit K., Prashant Gandhi and Noshir Kaka. (2006). The Untapped Market for Offshore Services: McKinsey. http://www.mckinseyquarterly.com/Operations/Outsourcing/The_untapped_market_for_offshore_services_1772.
- Crain's Chicago Business (2010). Legal Outsourcer Mindcrest taps India for Talent. Retrieved March 1, 2010, from <http://www.chicagobusiness.com/cgi-bin/blogs/ecity.pl?plckController=Blog&plckScript=blogScript&plckElementId=blogDes&plckBlogPage=BlogViewPost&plckPostId=Blog%3a16ea2629-7e90-46f0-a706-dd6152764513Post%3a9a9aafb0-d460-464d-9126-12285381178c&plckCommentSortOrder=TimeStampAscending&sid=sitelife.chicagobusiness.com>. January 26.
- Current IT Market (2009a). Deloitte to Hire 15,000 People in India. Retrieved March 8, 2010, from <http://www.currentitmarket.net/2009/11/deloitte-to-hire-15000-people-in-india.html>. November 11.
- (2009b). IT's Not All That Hot for Fresh Recruits. Retrieved March 4, 2010, from <http://www.currentitmarket.net/2009/11/its-not-all-that-hot-for-fresh-recruits.html>. November 4.
- Datamonitor. (2009). Global IT Services. London: Datamonitor.
- Dossani, Rafiq and Martin Kenney. (2007). The Evolving Indian Offshore Services Environment: Greater Scale, Scope and Sophistication: Sloan Industry Studies Working Papers. <http://www.industry.sloan.org/industrystudies/workingpapers/>.
- Duke Offshoring Research Network & Booz&Co. (2007). Offshoring 2.0: Contracting Knowledge and Innovation to Expand Global Capabilities.
- ECLAC. (2008). "Offshore corporate services in Latin America and the Caribbean."

- . (2009). Foreign Direct Investment in Latin American and the Caribbean. Santiago, Chile: Economic Commission for Latin America and the Caribbean.
- El Mercurio. (2009). Nuevo Centro de GE en Chile Generará US\$50 mills. en Exportaciones y Mil Puestos de Empleo. *El Mercurio*. August 13, p. 4.
- Fernandez-Stark, Karina, Penny Bamber and Gary Gereffi. (2010). The Chilean Offshore Services Industry: A Global Value Chain Approach. Durham: Center on Globalization Governance and Competitiveness - Duke University. Commissioned by CORFO.
- Finance Trading Times (2009). TCS Layoffs Job Cut: To fire 1300 Employees. Retrieved March 4, 2010, from <http://www.finance-trading-times.com/2009/03/tcs-job-cutstcs-layoff-layoff-tcs-job.html>. March 8.
- FIS Press Release (2010). FIS' HORIZON Increasing Deployment Momentum. Retrieved March 8, 2010, from <http://finance.yahoo.com/news/FIS-HORIZON-Increasing-bw-2083533586.html?x=0&.v=1>. January 13.
- Gartner. (2009). Business Process Outsourcing Vendor Consolidations: Is Your Contract at Risk? : Gartner. August 27.
- Gereffi, Gary and Karina Fernandez-Stark. (2010). The Offshore Services Industry: A Global Value Chain Approach. Durham: Center on Globalization Governance and Competitiveness - Duke University. Commissioned by CORFO.
- Gereffi, Gary, John Humphrey, Raphael Kaplinsky, and Timothy J. Sturgeon. (2001). "Introduction: Globalisation, Value Chains and Development." *IDS Bulletin*, 32(3): 1-8.
- Gospel, Howard and Mari Sako. (2008). The Unbundling of Corporate Functions: the Evolution of Shared Services and Outsourcing in Human Resource Management. Conference: Society for the Advancement of Socio-Economics, Costa Rica.
- Gupta, J B (2008). Drug Discovery and India: A Force to Reckon with. (Issue 9). Retrieved August 18, 2009, from http://www.pharmafocusasia.com/strategy/drug_discovery_india_force_to_reckon.htm
- Harris, Jason. (2009). Outsourcing Forecast Assumptions, Worldwide, 2000-2013: Gartner. <http://www.gartner.com/DisplayDocument?id=1106212>.
- Hewitt Associates. (2009). HR Outsourcing Trends and Insights-Survey Findings. http://www.hewittassociates.com/_MetaBasicCMAssetCache/_Assets/Articles/2009/Hewitt_HR_Outsourcing_Study_2009_Results.pdf.
- IDC Latin America. (2009). La Industria de Servicios Globales en Chile- Estudio Cluster de Servicios Globales. Santiago: CORFO.
- India PRwire (2009). Negative Short Term Impact on Legal Process Outsourcing. Retrieved March 7, 2010, from <http://www.indiaprwire.com/pressrelease/other/2009111737681.htm>. November 17.
- Indiatimes Infotech (2009). No hikes, Promotions at Infosys. Retrieved March 4, 2010, from <http://infotech.indiatimes.com/articleshow/5008359.cms>. September 14.
- Lewin, Arie, Silvia Massini, Nidhida Perm-Ajchariyawong, Derek Sappenfield, and Jeff Walker. (2009). Getting Serious About Offshoring in a Struggling Economy. https://offshoring.fuqua.duke.edu/pdfs/Shared%20Services%20News_ORN.pdf.
- Lopez, Andres, Daniela Ramos and Ivan Torre. (2008). Las Exportaciones de Servicios de América Latina y su Integración en las Cadenas de Valor. Buenos Aires: CENIT: Documento realizado para la Comisión Económica para América Latina y el Caribe (CEPAL). Marzo, 2008.

- McDougall, Paul (2009). IBM Offers to Move Laid Off Workers to India. . InformationWeek. Retrieved January 12, 2010, from <http://www.informationweek.com/news/global-cio/outsourcing/showArticle.jhtml?articleID=213000389>. February 2.
- McKinsey Global Institute. (2009). The Emerging Global Labor Market. Retrieved July 17, 2009, from <http://www.mckinsey.com/mgi/publications/emerginggloballabormarket/Part2/supply.asp>
- Meyer, Thomas (2009). Economic Crisis Complicates Offshoring of Services. YaleGlobal. Retrieved January 12, 2010, from <http://www.yaleglobal.yale.edu/content/economic-crisis-complicates-offshoring-services>. February 9.
- Nair, Ed. (2010). The Impact of the Economic Crisis in the Offshore Services Industry. Personal communication with K. Fernandez-Stark. March 10.
- NASSCOM. (2008). NASSCOM-Everest India BPO Study.
- . (2009). Indian IT-BPO Industry Factsheet. Retrieved July 17, 2009, from http://www.nasscom.in/upload/5216/IT_Industry_Factsheet-Mar_2009.pdf.
- NASSCOM Newsline (2009). 2009 Is Gone. 2010 Beckons, The IT-BPO Industry: Looking Back, Looking Ahead. Retrieved March 03, 2010, from <http://blog.nasscom.in/nasscomnewsline/2009/12/2009-is-gone-2010-beckons-the-it-bpo-industry-looking-back-looking-ahead/>. December.
- OECD. (2008). Europe Regional Investment Strategy Key Findings of the Sector Specific Study. Sarajevo: OECD Private Sector Development Division. July 3.
- Philippine Daily Inquirer (2009). BPOs Not Entirely Crisis-Proof, Study Says. Retrieved March 1, 2010, from <http://business.inquirer.net/money/topstories/view/20090528-207661/BPOs-not-entirely-crisis-proof-study-says>. May 28.
- Sako, Mari. (2005). "Outsourcing and Offshoring: Key Trends and Issues". Paper presented at the Emerging Markets Forum. Oxford, UK. Retrieved July 6, 2009, from <http://www.sbs.ox.ac.uk/NR/rdonlyres/99F135D4-E982-4580-9BF0-8515C7B1D40B/1752/EMFOutsourcingNov05.pdf>.
- Shah, Kalpana (2007). Accenture Shifts Growth to India. Red Herring. Retrieved January 6, 2010, from <http://www.redherring.com/Home/20989>
- SiliconIndia (2009). India Fast Losing BPO Jobs to Philippines. Retrieved March 8, 2010, from http://www.siliconindia.com/shownews/India_fast_losing_BPO_jobs_to_Philippines_-_nid-64084-cid-1.html. December 27.
- Sturgeon, Timothy and Gary Gereffi. (2009). "Measuring Success in the Global Economy: International Trade, Industrial Upgrading, and Business Function Outsourcing in Global Value Chains." *Transnational Corporations*, 18(2): 1-35.
- TeamAsia (2009). State of the BPO Industry: Well-Managed, Innovative Firms are Growing. Retrieved March 8, 2010, from http://www.teamasia.com/pr/PR_clientnews.asp?art_no=489. June 16.
- Technology Partners International. (2008). The TPI Index.
- The Boston Consulting Group. (2007). Estudios de Competitividad en Clusters de la Economía Chilena. Documento de Referencia Offshoring. May 18.
- The Economic Times (2010). India's long-reigning voice BPO losing out on accent. The Economic Times. Retrieved January 26, 2010, from <http://economictimes.indiatimes.com/infotech/ites/Indias-long-reigning-voice-BPO-losing-out-on-accent/articleshow/5478861.cms>

- UNCTAD. (2009). Information Economy Report 2009: Trends and Outlook in Turbulent Times. New York and Geneva: United Nations. http://www.unctad.org/en/docs/ier2009_en.pdf.
- Vashistha, Avinash and Ed Nair. (2010). Location Assessment: Perception and Reality for Global Businesses: Tholons Inc. & Global Services. Webminar. January 15.
- Villafania, Alexander (2009). Call Center Revenues Reach \$5B in '09. Retrieved January 11, 2010, from <http://newsinfo.inquirer.net/breakingnews/infotech/view/20090720-216409/Call-center-revenues-reach-5B-in-09>
- Wadhwa, Vivek, Ben Rissing, Gary Gereffi, John Trumbour, and Pete Engardio. (2008). The Globalization of Innovation: Pharmaceuticals: Can India and China Cure the Global Pharmaceutical Market: Kauffman Foundation. This research was commissioned by the Kauffman Foundation. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1143472#PaperDownload.
- Young, Allie, Dane S. Anderson, Kenneth F. Brant, Robert H. Brown, Linda R. Cohen, Susan Courmoyer, Claudio Da Rold, Matthew Goldman, Helen Huntley, Venecia K Liu, Richard T. Matlus, William Maurer, Ben Pring, Cathy Tornbohm, Gianluca Tramacere, Jim Longwood, Ian Marriott, Dean Blackmore, TJ Singh, Cassio Dreyfuss, and Rishi Sood. (2008). Gartner on Outsourcing, 2008-2009: Gartner. http://www.gartner.com/DisplayDocument?doc_cd=164206.