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EXECUTIVE SUMMARY

The Offshore Services Global Value Chain

ECONOMIC UPGRADING AND WORKFORCE DEVELOPMENT



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“Skills for Upgrading: Workforce Development and Global Value Chains in Developing Countries”

This research project examines workforce development strategies in developing countries in the context of the shifting upgrading dynamics of global value chains. Funded by RTI International and carried out by Duke CGGC, this research addresses policymakers, donors and development practitioners to improve our understanding of how workforce development strategies can enhance the upgrading efforts and competitiveness of developing countries in global industries.

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None of the opinions or comments expressed in this study are endorsed by the companies mentioned or individuals interviewed. Errors of fact or interpretation remain exclusively with the authors.

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Executive Summary

This report uses the global value chain (GVC) perspective to examine the role of workforce development initiatives in a number of developing countries that are participants in the rapidly expanding offshore services industry. The offshore services industry has emerged as a dynamic global sector in the past two decades that directly employs 4.1 million people globally. The information and communication technology (ICT) revolution that began in the early 1990s transformed the way companies do business by allowing for the separation of the production and consumption of services. The industry includes a wide array of skill-intensive activities once considered strictly the domain of the industrialized world that are now performed in developing countries. These services include information technology outsourcing (ITO), business process outsourcing (BPO), and knowledge process outsourcing (KPO) as well as industry specific services.

A GVC approach is particularly useful in exploring the dynamic workforce skill issues in the offshore services industry for several reasons. First, by definition, offshore services are global: the geographic span of the industry encompasses the home market—usually in a developed country—as well as one or more developing country markets, which provide business services at a level of value added that is significantly determined by the quality of the available workforce.

Second, the upgrading of the industry has been catalyzed by three key groups of lead firms: (1) multinational firms that established subsidiaries in developing countries (“captive centers”); (2) large global service providers from developed countries that leveraged subsidiaries in emerging markets to provide services to the developed world; and (3) a group of strong Indian firms that have grown rapidly as the industry has developed and are now established as a significant presence in both developing (operations) and developed (client and sales teams) countries. All three groups of firms have driven the market by seeking cost advantages through the geographic separation of activities and sourcing from lowest-cost locations that were capable of providing services to acceptable standards. As such, the industry provides a clear illustration of how globalization has provided opportunities for both employment and business formation in developing countries where appropriate skills are present.

Third, developing countries are engaging in market-driven development—acquiring capabilities to upgrade services (providing better services, expanding the number of services, and/or offering higher value added services)—through significant investments in workforce training and managerial capabilities, provided initially by private offshore service providers but now increasingly supported by an expanded range of public, private, and multisector initiatives. Far from a race to the bottom, involvement in the offshore services industry has provided developing country workers, firms, and governments with an

attractive opportunity to build the skill-based competencies required to meet the demands of global service markets.

This report examines the role of workforce development initiatives in terms of how developing countries can enter the offshore services value chain and what is required to move up it. We examine these workforce development initiatives in-depth for six different countries: India, the Philippines, Chile, Dominican Republic, Guatemala, and El Salvador.

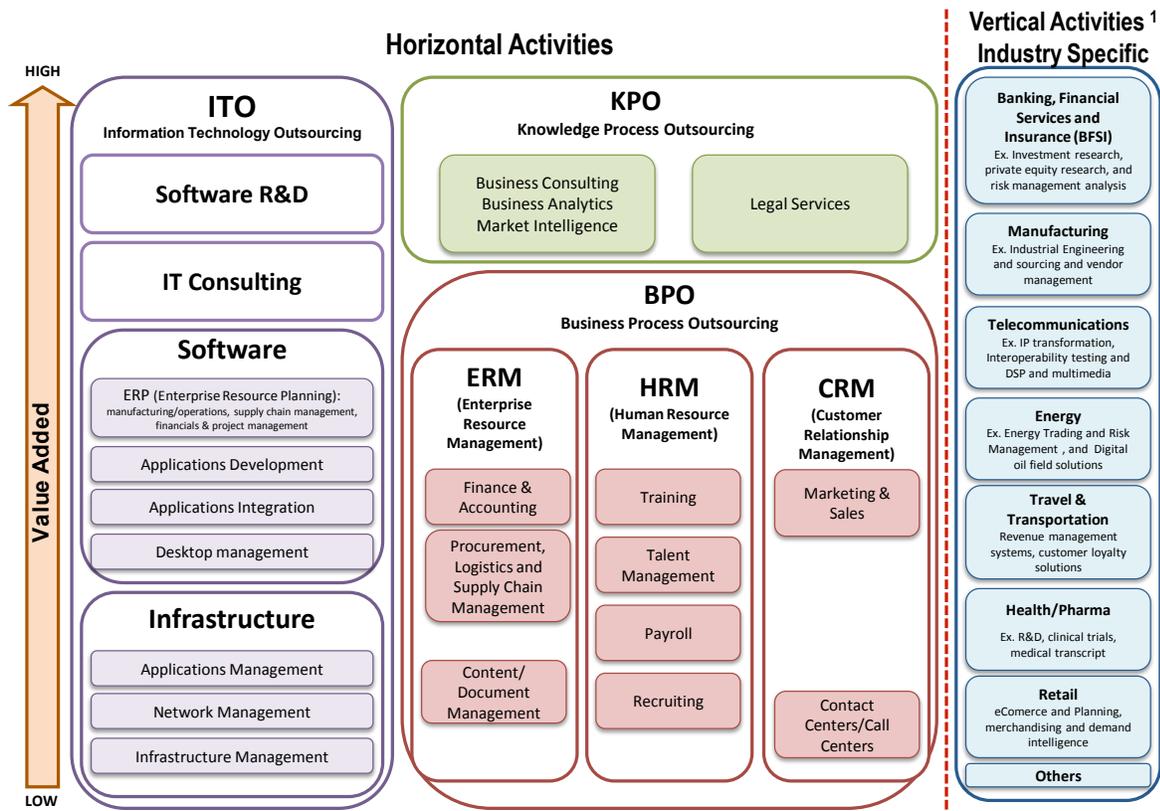
Our analysis reveals the following findings with respect to workforce development and upgrading in this sector:

Upgrading

Five principal upgrading trajectories for the offshore services industry can be identified: Entry into the value chain; upgrading within the BPO segment; offering full package services; the expansion of IT firms into KPO services; and the specialization of firms in vertical industries. In each segment of the offshore services value chain (ITO, BPO and KPO), process, product, and functional upgrading may occur, and multiple upgrading (shifts) processes can happen simultaneously in a given country.

- Entry into the lowest segments of the value chain requires a supply of low-cost labor with basic education, as in the Philippines where wages in the call center industry are highly competitive with other industries, despite being amongst the lowest in the world.
- Entry into and upgrading through the value chain is dependent on the presence of an educated workforce that can meet global service delivery standards.
- Highly qualified labor is key for upgrading into higher segments of the value chain. Entry into high-value engineering services for mining by Chile, for example, was facilitated by the availability of a large number of well-educated engineers.

Figure 1. The Offshore Services Global Value Chain



Notes: 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 captures the industries with the highest demand for offshore services. This graphical depiction of vertical activities does not imply value levels. Each industry may include ITO, BPO, and advanced activities.

Source: Duke CGGC.

Workforce Development

While national education systems have provided the basic skills necessary in all countries, the majority of workers in this industry require additional training to fill the knowledge gap between local education systems and high-quality standards required to serve the global market.

- English-language skills’ training has been central to all workforce development initiatives in all countries. In particular, English is key to upgrading the workforce, as many of the third-party providers operating in developing countries offer online training and development resources in English only. English training is also necessary for upgrading into higher value services, which include significant collaborative interactions with global communities, of which English is the main language.
- Job-specific or demand-driven training where the private sector trains staff for specific job functions is found to be the most effective means of ensuring that education and training meets the needs of the industry.

- Training in global certifications in the ITO sector is particularly important for keeping staff on the cutting edge of technology, and in turn is a requirement for upgrading into new activities. In Chile, in addition to training staff in current platforms, firms also encourage innovators to run training programs internally on their new projects.
- Training for near-hires¹ is an important means of rapidly increasing the supply of labor for the industry, helping developing countries to maintain their competitiveness. In the Philippines, this practice is particularly prominent for call centers, where steadily growing demand requires them to recruit new employees on a regular basis.

Institutions

There are emerging differences in the roles that different institutions play in driving workforce development across the value chain. This is influenced by the existing educational and training frameworks in the countries in which the chain is embedded, the stage of the value chain in which firms in the country are located, the portability of the skills developed, and the commitment of the government to promoting growth in the industry.

- **English language training** is highly portable and relevant for most jobs in the labor market for emerging economies. There are numerous public and multistakeholder initiatives to drive the development of language competencies in non-English speaking countries promoting the offshore services industry.
- **ITO** requires a depth of technical knowledge that must be accumulated through numerous training programs, ongoing education, and a variety of institutional approaches can be identified. In India, the private sector was forced to take a highly proactive role in developing their workforces to substitute for poor quality in educational institutions. In Chile, the government showed clear commitment to developing this segment and offered training subsidies to firms and fostered collaboration between technical educational institutions and the industry through the Public Private Strategic Council.
- **KPO and high value industry-specific segments** depend on high-level technical and analytical skills that are developed over time and rely on rigorous university education. As in the other segments of the offshore services value chain, however, there remain certain gaps between the education sector and the industry that must be filled. Nonetheless, many of the skills required for this sector are portable across different economic sectors and **multistakeholder initiatives** appear to be the most prominent approach to skills development.

¹ "Near-hires" refers to good potential employees who could not be hired due to small experience or training gaps in their resume.

- **Financing Workforce Development:** Two key trends can be identified. First, there appears to be a strong shift away from individual investment in education and training for this industry to firm-level provision due to increased competition between firms for talent and the gap between skills provided by the education sector and those required by the industry. Second, there is a substitution of government or public sector financing through tax incentives and subsidies for these firm investments in workforce development. The promising potential spillover effects have encouraged governments to directly finance education and training for the sector. Due to the fierce competition that has emerged between developing countries to attract large third-party providers and captive firms, numerous governments have launched initiatives to reduce these costs associated with workforce development. These trends further highlight the movement away from supply-driven workforce development to demand-driven development.

Global-Local Interactions and Standards

Entry into the value chain depends to a large extent on the presence of a large foreign provider. These firms play a central role in facilitating knowledge transfer regarding the industry to developing countries. Local firms often lack the competency, scale, or global market presence to compete with established Indian and developed market providers.

Standards and global certifications allow developing countries to signal their quality levels to the global market and thus compete with a large number of potential destinations. As a result, these standards have been broadly adopted at the lower end of the offshore services value chain. However, in order to upgrade into the highest segments of the value chain, know-how, innovation, and specialized university education are much more important than a specific industry standard.

In evaluating workforce development policy for this industry, policy makers must be keenly aware of the rapid evolution and highly competitive nature of this industry and develop a broader understanding of how to engage in workforce development to facilitate upgrading into these higher-level services. The skill level and qualifications of the existing and rising workforce determine the entry and upgrading potential of a host nation in this sector. The analysis highlights the shortcomings of traditional workforce development frameworks in developing countries to provide both the flexibility and quality to meet the skill levels required by the industry. It also suggests, however, that combined institutional approaches that foster collaboration between the private, public, and educational sectors can help to narrow this gap to meet global service standards.

Table 1. Upgrading Trajectories in the Offshore Services Global Value Chain

	Diagram	Description
Entry into the Value Chain		<ul style="list-style-type: none"> • Common way to enter the offshore services value chain is through the establishment of call center operations. • Opportunity for low-income countries to enter into the knowledge economy.
Upgrading within the BPO Segment (Functional Upgrading)		<ul style="list-style-type: none"> • Companies expand their BPO services within the segment. • Improving and expanding call centers operations or specialization in certain areas such as inbound or outbound, sales, CRM management, etc.
Broad Spectrum Services (Functional Upgrading)		<ul style="list-style-type: none"> • Companies positioned in the ITO and KPO segments may opt to provide a more comprehensive range of activities and include BPO services. • Acquisitions of smaller BPO firms and/or creating a new business unit within the company.
Upgrading from ITO to KPO functions (Functional Upgrading)		<ul style="list-style-type: none"> • IT service firms include KPO activities in their portfolio. • IT companies engage customers to find solutions for unsolved business problems.
Industry Specialization (Intersectoral Upgrading)		<ul style="list-style-type: none"> • Companies offering some ITO, BPO, and KPO services for a wide range of industries start specializing and focus on key industries to develop expertise. • This can include both lower value and high value activities.

Source: Duke CGGC.

Table 2. Job Profiles in the Offshore Services Global Value Chain

Position	Job Description	Formal Education Requirements	Training/ Experience	Skill Level
ITO				
IT Technician	Maintains equipment and network devices, provides software support for updates.	Technical diploma/degree	Specific technical courses, on-the-job training, and experience	
IT Software Programmer	Programs software applications for general or customized use.	Technical diploma/degree	Software programming courses and certifications	
IT Consultant	Provides advice to help firms align IT strategy with their business objectives (may include information risk management, IT infrastructure, strategy, data management).	Bachelor's degree in IT/ Master's degree in engineering	Consulting/ management experience	
Software R&D Engineer	Designs, develops, and programs innovative software packages and functions.	Bachelor's /Master's/ Doctoral degree in industrial engineering/computer science/informatics	Software programming courses and certifications	
BPO				
Call Center Operator	Answers in-bound calls regarding specific products and provides general customer services.	High school/ Bachelor's degree	Two – three week of training and on-the-job training	
Finance and Accounting Analyst	Provides accounts receivables and accounts payable processing, reconciliations, ledger keeping, and income and cash statement preparations.	High school/ technical institute diploma in accounting	Technical training and on-the-job training	
Marketing and Sales Representative	Supports inbound and outbound sales, sales order processes, and customer monitoring.	Technical/Bachelor's degree	Short training and on-the-job training	
BPO Quality Assurance and Team Managers	Ensure BPO agents meet specified client service standards and monitor agent performance.	Technical and university-level professionals	Technical training and on-the-job training	
KPO				
Finance Analyst	Provide guidance to businesses and individuals making investment decisions; assess the performance of stocks, bonds, commodities, and other types of investments.	Bachelor's degree in business administration	Chartered Financial Analyst (CFA) certification	
Business Analyst	Provides business services, such as market research, business opportunity assessment, strategy development, and business optimization.	Bachelor's/Master's degree in business administration	Experience	
Legal Analyst	Reviews and manages contracts, leases/ licenses. May provide litigation support services or intellectual property services.	Law degree	Experience and training in specific country legal systems	
R&D				
Researcher	Undertakes projects to increase the stock of knowledge; develops new products based on research findings.	Master's/doctoral degree	Experience/industry specialization	

Source: Duke CGGC based on Fundación Chile, 2009; Fernandez-Stark et al., 2010b; Wadhwa, 2008.

Skill Level	Low	Low-Medium	Medium	Medium-High	High
	No formal education/ experience	Literacy and numeracy skills; experience	Technical education/ certification	Technical education/ undergraduate degree	University degree and higher

Table 3. Workforce Development Implications and Upgrading in the Offshore Services Global Value Chain

	Diagram	Workforce Development Implications	
Entry into the Value Chain		Call centers hire people with high school diplomas or Bachelor's degrees. Further skills training is provided by the company or private training institutions.	
		<p>Skills Preparation</p> <p>Short technical training</p>	<p>Institutions</p> <p>Private sector Government</p>
Upgrading within the BPO Segment (Functional Upgrading)		Skills development is carried out by the private sector, either through in-house or contracted training programs. Further technical training is provided to existing and new employees.	
		<p>Skills Preparation</p> <p>Short technical training Formal education (degree required)</p>	<p>Institutions</p> <p>Private sector Government Tertiary educational institutions</p>
Full Package Services (Functional Expansion)		Expansive hiring process targets candidates with high school diploma and/or colleges graduates to work in the BPO segment. New hires must complete BPO training programs to guarantee quality services.	
		<p>Skills Preparation</p> <p>Short technical training Formal education (degree required)</p>	<p>Institutions</p> <p>Private sector Government</p>
Upgrading from ITO to KPO functions (Chain Upgrading)		Personnel with higher education qualifications recruited. Typically MBA graduates and workers with business experience. Workers must have sharp analytical skills.	
		<p>Skills Preparation</p> <p>Formal education (degree required)</p>	<p>Institutions</p> <p>Tertiary educational institutions</p>
Vertical Specialization (Chain Upgrading)		Companies hire experts to sustain their competitive advantage in specific areas. For example, a BPO company providing medical transcription services must hire nurses and doctors to ensure accurate service provision.	
		<p>Skills Preparation</p> <p>Formal education (specialized degree required)</p>	<p>Institutions</p> <p>Tertiary educational institutions</p>

Source: Duke CGGC.