Is offshoring possible in Latin America?"

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We want to express our most sincere gratitude to all the speakers that inspired this paper. Also, we want to thank our professors Amar Gupta and Lester C. Thurow for putting up this fantastic course of such a great topic. We hope this paper can contribute to some entrepreneurship venture and somehow can contribute to create a better world.
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Paper’s goal

This paper assesses the situation of Latin America as a potential offshore destination. In order to do so, we understand that before analyzing the capabilities of Latin America we need to understand the dynamics of the offshoring business. At an industry level, using the Porter’s five-force model we envision the opportunities for Latin American countries as well as the issues and caveats these countries may have when entering the market.

We complemented the industry analysis with an overview of the demand and, making special attention to understand the customer needs, what do they buy, and why do they buy. We believe this approach will help Latin American vendors to successfully address their product. Finally, the industry analysis is completed with a brief overview of the supply side in terms of competitor’s countries.

Finally we will answer the main question of this paper: “Is offshoring possible in America?”

To address this question we studied the main characteristics of this region through a comparative analysis between four Latin American countries and India, the leading offshore country.

To understand these characteristics we have looked into the macroeconomic environment, the micro level that parallels with the Porter’s analysis, and the specific aspects of each country to develop the offshore BPO and software development business.
1. Introduction on offshoring

What is offshoring? It is shorthand for offshore outsourcing. Offshoring is the practice of acquiring IT or BPO capabilities, usually from an outsourcing service provider, but also through company-owned, dedicated centers, in remote lower-cost locations.

A common misconception is that all offshoring involves outsourcing, and this is not true. Offshored processes can be handed off to third-party vendors or remain in-house.

The origins of offshoring can be found in the Chatrapati Shivaji Museum of Mumbai, India, where there is an exhibit dedicated to a number of British Man-of-War ships built by Indian companies in the early 1800s. Originally manufactured offshore for reasons of cost, these ships performed better than British vessels, due to superior materials and greater workmanship. History repeated itself many years later, when production offshoring involved relocation of physical manufacturing processes to a lower-cost destination. Examples of production offshoring included the manufacture of electronic components in Taiwan and the production of apparels, toys, consumer goods in China, which offered cheap prices through very low-wage rates and economies of scale.

Following a similar pattern as manufacturing, the growth of the offshoring industry is linked to the availability of large amounts of reliable and affordable communication infrastructure following the telecom bust of late 90s. Together with the digitization of many services, it is now possible
to shift the actual delivery location of services to a lower-cost location in a transparent way to end-users.

As other service segments remain flat or shrink, IT outsourcing is the fastest-growing segment of the technology services market. Cost savings remain the main driver for this fast growth, along with speed-to-market and quality, keeping the motivations constant for companies to outsource offshore.

Offshoring is now capturing around 1% of $600 billion, currently spent worldwide in IT services. As the market is growing at a fast pace, companies increase profits and revenues year after year, while new players are entering the market. Market analysts and the research interviews indicate, however, that margins are getting slimmer, and the market is becoming more competitive.

The offshoring business is based on labor arbitrage, as labor accounts for more than 50% of the total cost of the service. By reducing labor costs by a factor of ten, the total savings varies from 30 to 50% at the most, after adding new cost such as management and communications. Savings are often achieved by a combination of factors such as productivity increase, the rationalization of services, and the economies of scope and scale that vendors are also able to provide. Offshoring often increases the quality of service, and offer higher flexibility to customers.
2. Offshoring industry analysis.

2.1. Industry attractiveness

To better understand the offshoring industry, Porter’s Five-forces model is applied with the purpose of determining the industry’s attractiveness and profitability. Results of the model help understand market dynamics and how customers and vendors react to changes in competitive forces from their different resources and competencies.

The scope of the following analysis is limited to the industry structure level, not including market segments, particular companies or geographical regions.

**Buyers:** the bargaining power of customers is considered high for several reasons. Despite the fact that customers are not highly concentrated, large customer’s purchases represent a major portion of the sellers’ total revenue, making volume important. The service purchased is fairly undifferentiated, making it easy to switch to other suppliers. In addition, buyer information is vastly available, which makes it easy for buyers either to buy or to move to a captive model (backward integration) in which the customer manage their own facilities.

The combination of a moderate to high price sensibility, one of the main drivers of the industry, and the availability of existing substitute services, in addition to all the facts mentioned above, defines the buyer power in the industry as high.
Exhibit: Porter’s Five-forces model applied to the IT offshoring industry

**Very unattractive- Low barriers of entry**
- Easy to scale
- Low capital investment
- Service distribution is greatly available
- Increasing threat of new entrants from different markets
- Low customer loyalty

**Unattractive- High bargaining power**
- Moderate to high price sensitivity
- Highly available substitutes
- Undifferentiated service
- Backward integration available

**Mildly unattractive- Many substitutes available**
- Customers can build their own captive centers
- Customers can in-source services

**Attractive- Low bargaining power**
- IT professionals are generally available
- Infrastructure supply is almost commodities
- No threat of forward integration

**Mildly attractive- Profitable with declining margins**
- Low exit barriers
- Low fixed allocated cost per value added
- Competition is mitigated due to market growth

**Potential entrants**

**Threat of new entrants**

**Bargaining power of suppliers**

**Bargaining power of buyers**

**Threat of substitute products or services**

**Industry competitors**

**Rivalry among existing firms**

**Substitutes**
**Potential entrants:** The industry is highly threatened by new entrants, as barriers of entry are not high enough to avoid new competitors entering the market. Although it is necessary to build certain economies of scale to run the business efficiently, specialization can lower these economies to very reasonable numbers. New entrants can achieve that scale by building centers of 400 to 500 developers. Big Indian companies are trying to raise entry barriers by building strong brands around quality processes. This certainly will help them to sustain a competitive advantage for a short period of time. Customer loyalty is considered low despite the knowledge transfer cost of switching vendors. The learning curve applies to vendors when they get into a new account, as they have to learn the particularities of the industry and the customer.

Initial capital requirements are low as the needed infrastructure is normally rented or paid based on consumption. IT vendors tend to build their operating centers in technology parks where space and communications is easily available and paid almost as an utility. Employees are hired according to demand as well. Companies established in countries where labor contracts are flexible have a competitive advantage, as cost comes mainly from salaries. Additional cost from marketing the service and the cost of the onshore operations as is non-productive overhead.

Service distribution is greatly available thanks to new technologies. For example, work is delivered through the net, and bandwidth is the only infrastructure needed, which is also highly available for companies in the majority of countries.
Established government policies play a role in fostering the industry clustering, incentivizing the industry through tax holidays, infrastructure and legal advantages. On the customer side, government can play a role in lowering incentives, also through taxation on works done abroad. Generally speaking, the influence from the government is moderate.

In summary, new entrants can threaten the industry profitability and make it unattractive.

**Suppliers:** The bargaining power of suppliers is very low as supply is mostly made up of commodities. The main suppliers are the universities that train developers and technical personnel in the industry rely upon. Universities have limited or no bargaining power. Despite that fact, a shortness of skilled people in a determinate area can force an increase of salaries and a competition to retain talented people. Not being able to supply the demand of talented people forced some Indian companies to raise salaries and become less competitive against vendors from different regions.

The next larger group of suppliers is the infrastructure ones. Specialized real-estate agents, in combination with governments, offer fully-equipped spaces to vendors with little or no value of differentiation other than location. Commodities such as hardware, bandwidth and power supply are extremely difficult to differentiate, although in certain places, reliability can be the differential. In some of the utilities there are substitutes, and the best example is power supply. Many vendors installed their own power generators to be independent from unreliable
power suppliers. In some places, the market of utilities can be extremely regulated and concentrated.

There is no threat of forward integration by suppliers relative to the threat of backward integration by firms. Volume is relatively important and does not influence much in the supplier’s strategy.

Generally speaking, cost of inputs, relative to selling price of the service, are important if we talk about human capital but are insignificant if we talk about infrastructure.

In summary, suppliers make the offshoring industry very attractive.

**Substitutes:** The threat of substitute services is always present. Buyers, when trying to achieve a certain scale in their offshore operations, are always tempted to capture more of the value by installing their captive model. Another substitute can be the traditional outsourcers, if they decide to scale down cost and become more competitive, even in the same country. Substitutes will also come by similar services at a lower level from different markets or even different technologies. In-house, onshore development is another substitute that can threaten the industry easily.

In summary, suppliers make the offshoring industry mildly unattractive.
**Rivalry among existing firms:** The intensity of competitive rivalry increases as new competitors enter the market. By nature, this is a truly global industry and rivalry not only exists at a company level, but also at country level.

Competition is based on quality, price and capacity. Location is the only important factor that competitors can differentiate, although the degree of differentiation that the country gives is not sufficient to distinguish it from competitors.

The competition effect is mitigated due to the market growth and demand of new services that allow new entrants in the market.

Neither the fixed allocated cost per value added, nor the exit barriers are high in the offshoring industry.

So far a profitable industry, with declining margins.

*An industry’s profit potential is largely determined by the intensity of competitive rivalry within that industry*¹

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¹ Michael Porter “*Competitive Strategy: techniques for analyzing industries and competitors*”. The Free Press. 1980
2.2. Offshoring Demand analysis

U.S. businesses are the main beneficiaries of the offshoring services, accounting for almost 70% of the total market. Europe and Japan account for the remainder of the market, with U.K. as the major contractor in Europe. When it comes to capturing the value of offshoring, the U.S. and U.K. have the “3Ls” common advantages on their side: Language, Labor and Legal. First, both countries have the English language as their natural business language, as many of their vendors do. Secondly, both countries have a very flexible job regulation, allowing companies to easily eliminate jobs. And lastly, both countries have a legal system with many commonalities as India, the main supplier for U.S. and the U.K.

Exhibit 10: IT Offshoring demand distribution by country

Besides the “3Ls” factor, the U.S. is a market leader because of the total IT volume and the fact that U.S. companies have a tradition in outsourcing their IT departments. Market competition forced many companies to look for a more efficient manner in which to manage their resources. They also had to find, through an outsourcer, the economies of scope and scale that companies couldn’t find by themselves. Offshoring is the second natural step for companies to capture the savings and the advantages of the outsourcing model.

Financial services, consumer packaged goods, healthcare and retail are the leading industries that already decided to send offshore their IT departments. As promising industries we find government and IT product development. The major obstacle for government is to be able to solve political and media issues, while IT development firms’ obstacle is to solve some IP and creativity concerns.

The European outsourcing market is still heavily centered on the United Kingdom, Germany and France. Meanwhile, the rest of the European countries are more reluctant to open their processes, practices and knowledge to external outsourcers. Some reasons, besides the “3Ls”, can be found as an explanation as to why other European markets have not yet been successful. Scale is one reason. For example, countries like Italy, Spain, Netherlands, and Belgium don’t have very many companies with the capacity to offshore large groups of people, as laying-off the workforce is not an option. A second reason is that the value proposition is not equally appealing for all the countries, especially when average salaries are competitive compared to the full cost of some offshore vendors.
EU legislation (regulation) regarding offshoring is expected to promote Central and Eastern European accession countries as IT suppliers of European companies. This achieves a double goal by growing the economies in those countries and by keeping the outsourcing industry within the EU. The human component is the main inhibitor to offshoring adoption.

Companies in Europe expect to work with suppliers that understand their business and can demonstrate expertise in vertical and process specific services. Companies also face offshoring with the idea of “do more with less” as an attempt to get more value and reduce costs.

Within the minor markets we can find Korea, Hong Kong and Taiwan. Although these countries are starting to pull demand, total volume and cultural resistance are expected to remain low.

So far, application maintenance, custom application development and system administration represent the bulk of offshoring. Infrastructure maintenance, system analysis and architecture planning fall behind, in a second group of less demanded services. IT strategy is not yet seen by customers as a consolidated product to be off-shored.

Customers are continuously sophisticating their demands to include higher value, adding project-based services such as application implementation (ERP, CRM, SCM), enterprise application integration and data warehousing/business intelligence, as well as application management and business process outsourcing.

2.2.1. Company’s reasons to offshore
At a more micro level we find Quality, cost and time to market are the main three reasons for companies to offshore. But after experiencing successful offshoring ventures, many firms report that the lack of skilled resources, labor flexibility, and best practices acquisition are their main benefits and reasons for continuing offshoring.

Quality in software is difficult to measure, but several initiatives have been set in place to standardize quality outputs. Among others, there are the initiatives promoted by the PMI (Project Management Institute), ISO (International Standard Organization), RUP (Rational Unified Process) and the SEI (Software Engineering Institute - Carnegie Mellon). The SEI set up the CMM (Capability Maturity Model) that became a de facto standard for assessing and improving software processes.

The Capability Maturity Model for Software describes the principles and practices underlying software process maturity and is intended to help software organizations improve the maturity of their software processes in terms of an evolutionary path from ad hoc, chaotic processes to mature, and disciplined software processes.²

² SEI (Software Engineering Institute Software- Carnegie Mellon)
According to the SEI model, 73% of the companies with CMM level-5 (top level) appraisal performed are based outside USA, Europe or Japan. Of the 111 companies around the world that achieved the valued level-5 Appraisal Performance, 67.5% were based in India.

Nowadays, quality is taken for granted as vendors increasingly push in that direction, and it is not anymore a source of differentiation among large vendors.

Quality trades off with flexibility, and vendors that do not achieve the highest levels take advantage of a bigger degree of flexibility compared to more rigid high-quality vendors. The truth is that each level of quality in the CMM model represents gains in productivity in respect to each of the inferiors’ levels. Also, companies that have worked with CMM-5 level vendors report a positive influence in their internal organization, as forced internal teams, to adopt the similar quality levels that their suppliers have adopted.

Offshore software development costs are evaluated as averaging 70% of the costs for the same development in the United States. Although, this does not represent total offshoring costs, as companies need to add the cost of managing the offshore relation, communication cost, and travel expenses, among others. Total savings can vary, depending on many variables, such as location, project size, process and technology. But these savings are estimated as between 30% to 50% at the most.
Exhibit 1: Offshoring Cost savings comparison

<table>
<thead>
<tr>
<th>Cost Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor costs</td>
<td>50%</td>
</tr>
<tr>
<td>Statutory costs*</td>
<td>15%</td>
</tr>
<tr>
<td>Markup or margins</td>
<td>18%</td>
</tr>
<tr>
<td>Travel and other expenses**</td>
<td>17%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

* includes taxes and insurance.
** For offshore development, this includes communication costs.

**Development based entirely in India**

**Development based entirely in the United States**

Source: Morgan Stanley Dean Witter; Deutshe Banc; International Data Corporation; McKinsey Analysis

The primary driver is cost. And whoever tells you anything different, believe me, this is not reality. If you do not get them cost savings first, forget about anything else.³

Time-to-market is the third fundamental reason to offshore. Industries such as IT and financial services, where time matters, need to speed up the products to market and need additional resources with a high degree of flexibility. Companies going offshore for time-to-market reasons are seeking two types of approaches, depending on the industry and the product development phase they are in. Some companies find the advantages of

³ Extract from a class presentation of Joe Saliba (CGI, President, U.S. and Asia Pacific)
offshoring as they can work on writing the specs and software modifications during their normal working day and hand it over to the offshore location that will work over night to deliver it the next morning. This is especially useful in areas like IT support departments that can work when the systems are not in full use, or also in big corporations who need support around the clock.

The second approach to the “time to market” advantage is during a time when an additional workforce is necessary to speed up a product development. Whether pressured by competitors or by customer demand, companies need to introduce products with reduced amounts of time and can not afford to have a flexible workforce in their original location. Offshoring allows extremely high flexibility in workforce allocation.

But what are the reasons that some companies don’t want to go offshore? Among the most common reasons for not offshoring are: lack of management skills and security issues or resistance from internal IT staff.

Exhibit 3: Main reasons for not offshoring or doing more offshore?

Source: Forrester Research, Inc. “Unlocking the savings in Offshore”. February 2003
Interestingly enough, although cost is found to be one of the main offshore drivers for companies that had already decided to offshore, when asked about vendor selection criteria, cost is one of the last factors listed. Companies rank expertise (technical, process or industry), financial stability, same language abilities, customer reference, local presence, or similarity with company’s project among the important parameters for selecting a vendor.

This confirms, generally speaking, that companies acknowledge the fact that once a certain amount of savings is captured by taking business offshore, they are conscious of the importance of turning their offshoring experience into a successful venture.

*Exhibit 4: Vendor Selection Criteria: Importance of selected factors when choosing an offshore vendor*

<table>
<thead>
<tr>
<th>Factor</th>
<th>Very important</th>
<th>Somewhat important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer skills</td>
<td>65%</td>
<td>29%</td>
</tr>
<tr>
<td>English language skills</td>
<td>59%</td>
<td>35%</td>
</tr>
<tr>
<td>Customer references</td>
<td>47%</td>
<td>24%</td>
</tr>
<tr>
<td>A U.S. presence</td>
<td>35%</td>
<td>35%</td>
</tr>
<tr>
<td>Experience with our type of software</td>
<td>47%</td>
<td>18%</td>
</tr>
<tr>
<td>Process certification</td>
<td>12%</td>
<td>41%</td>
</tr>
<tr>
<td>Lowest cost</td>
<td>24%</td>
<td>18%</td>
</tr>
<tr>
<td>A top-tier vendor</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td>Prior experience with the vendor</td>
<td>24%</td>
<td>12%</td>
</tr>
</tbody>
</table>

2.3. Offshoring supply analysis

The most popular offshore location is India, but other competitive options involve different trade-offs such as quality, cost and cultural fit. China, Russia, Israel, and Ireland are other examples of the trade off. The matrix cost versus quality of supply summarizes the different offshoring options according to the mentioned trade-offs. It is remarkable how India is able to stand alone in the quadrant of high quality and low cost.

*Exhibit 11: Cost-quality supply matrix (by country)*

![Cost-quality supply matrix (by country)](source: The McKinsey Quarterly- (This graph is U.S. biased))

Although many countries see the IT service industry as their major driving force behind future economic growth, most will be primarily successful only in certain niche markets, rather than supplying all types of markets and services.

A comprehensive study to determine the offshore location as a function of cost, environment and people also presents India as the most attractive alternative (reports are oriented for U.S.-based companies). In the cost
category, cost of labor, cost of management and infrastructure, as well as tax and treasury impact are the included factors. In the Environment category, economic and political risks are assessed, while country infrastructure, cultural compatibility and IP protection are measured. Finally, the People category deals with issues such as language, BPO or IT experience, size of labor market, employee retention, language barriers and literacy rates.

Exhibit 12: Cumulative comparison based on people environment and cost factors

Source: A.T. Kearney “Where to locate” 2003 - (This graph is U.S. biased)
3. Is offshoring possible in Latin America?

Recent history showed that the countries of today leading in a particular economic sector or industry might not be the countries of tomorrow. The industrial revolution in 1750 meant a significant change for England in its role in the world. The power of having the capabilities and resources to shift from being an agricultural driven country to being an industrial leader became to be critical in those days.

Countries then decided to incorporate industrial capabilities either to supply its internal market or to participate in world markets and become a global player. In the last century, Japan followed a model of improving processes and production techniques that allowed them to copy products developments to then manufacture high-end products and sell them to the most developed economies in the world. On the other hand, in the 1960’s many Latin American countries followed the Import Substitution model introduced by Raúl Prebisch from the “Comisión Económica para América Latina y el Caribe” (CEPAL). The fundamental reason behind the concept was that economic growth and wealth should come through protecting the economy from offshore competition and develop industrial capabilities to supply the local market.

Beyond this idea, in the more recent years we have seen a phenomenal integration of the world economy. In the mid to late 1980’s several important events significantly changed the international scenario. From the end of the Cold War, the fall of the Iron curtain in Germany, and the
Perestroika process in Russia, to the end of military intervention and opening a democratic period in Latin America meant a radical change in the political and economical dynamics of the world. Particularly, in Latin America democratization and economic liberalization helped to end military interventions leaving every nation in the hemisphere (expect Cuba) with elected governments.

In Latin America countries started a series of macroeconomic and microeconomic reforms aimed at generating economic stability and promoting and environment that would lay the basis for sustainable competitiveness and growth. The structural reforms that improved the overall profile of these countries and moved them towards the macro dynamics of the United States principally addressed the following areas:

- Tax reforms aimed at increasing the neutrality (and thus efficiency) of the tax system; these reforms generally implied reduced reliance on inefficient trade taxes and moved toward indirect consumption taxes such as the value added tax. (VAT).
- Trade reforms aimed at opening the economy; this greatly reduced the extent of non-tariff barriers, reduced the average tariff rates and tariff dispersion; exchange controls virtually disappeared.
- Privatization of public enterprises that resulted in accumulated revenue from privatization between 1990 and 1999 of US$178 billion, or roughly 1.1 percent of annual GDP.
- Financial-sector reforms, which reduced required reserves for banks, eliminated interest rates controls, phased out direct credits, reduced credit subsidies, and strengthen legislation.
- Labor reforms aimed at increasing the flexibility of labor markets, including the reduction in the costs of hiring and firing.
- Social security reforms based on individual accounts and private management of funds.

Despite these efforts on the economic side, on the political front, violence persists in Colombia, Venezuela’s tension rises with Chavez unpredictable moves, Argentina is coming out of the worst political and economical crisis in the history of the country, and Brazil is driving through the process to convince the world that they can handle their substantial debt levels.

Furthermore, with no doubt the world has been deeply re-shaped with the foundation of the European Union, the North Atlantic Free Trade Agreement and lately the extraordinary expansion of China and more recently the particular approach to globalization that India has taken in trading IT services.

The deepening of globalization generated an acceleration of the changes in the process of finding the best locations where to develop or enhance manufacturing and service capabilities. Mexico in the last 5 years lost a significant amount industrial output to China, the leading low-manufacturing country in the world.

The offshore industry has been quickly developing in the last years. According to Forrester research, in 2003 nearly half of all CIOs used offshore providers to avoid high labor costs in the United States and Europe, and two thirds say they plan to send work overseas this year. In fact, the
demand for IT and Business Processing Outsourcing is expected to boom in 2004, with more than half of the global outsourcing spend attributed to the United States.

After recognizing the characteristics of the offshoring business and the underlying motives that trigger the decision off many companies around the world to send work offshore and a quick revision of the latest facts in Latin America, we want to asses if this region has, or can create in the short term, the required conditions to be a successful offshore provider of services.

As China is the leading example in low-cost manufacturing, India is the model of offshoring. And today the work being sent offshore is not only in software development, which is a long established trend, but also business specific and back-office processes. However, India is not the only answer when it comes to offshore business processing. Just as not all companies are alike, neither are all countries.

There is an ongoing and maturing matching process between supply and demand of IT offshore services. Companies that once decided to contract a Canadian company to do BPO may then shift to India or viceversa. An A.T. Kearny analysis concluded that companies are increasingly following multi-country strategies to ensure business continuity if there is an interruption in one location. In addition, based on the different selection aspects described above (quality/flexibility, cost/time to market, environment) and the strategic positioning of companies, CIOs are permanently evaluating to identify subcategories of countries that are most apt to meet their specific needs.
In finding an offshore location companies consider the overall social, economic, and political characteristics of the country, and the competitiveness aspects of individual firms and service providers. As mentioned before, offshoring requires a change in the relationships between buyers and vendors of outsourcing services. Enterprises moving to offshore increasingly rely and depend on their IT vendors. As customers move from purely buying technology to accessing technology through services, traditional approaches to IT management are becoming obsolete. Pure customer-vendor contracts should be left behind in favor of more trustful long-term relationships. When volumes become important, new types of agreements such as joint-ventures, alliances and partnerships are listed among the most beneficial for managing the new sourcing strategy.

Thus, deciding of having a foreigner supplier for critical aspects of the company’s operations requires the signing of contract that will be subject to macro considerations of that location and the micro aspects that also will affect the contractual relationship or the consideration of the company to establish its own operation in that country.

To evaluate Latin America as a region to provide IT offshore services we have first studied which countries we will be analyzing. We concluded that Argentina, Brazil, and Chile are three interesting cases. These countries generate nearly 50% of South America’s GDP, with different macro and microeconomic profiles. In addition, we also looked into Mexico, a member of the North Atlantic Free Trade Agreement (NAFTA), and a country that provides the additional feature of proximity, such as Canada, though Mexico is the natural provider of Spanish-spoken services to the U.S.
Thus, to assess the potential of Latin America in capturing an important share of the world’s offshore business, we have been evaluating and comparing these four countries with India in three aspects. These aspects are: the macro dimension, the microeconomic characteristics, and the specific considerations to be made for each country on IT offshore services capabilities.

So first, we looked into the macroeconomic and overall factors that influence the country environment to companies develop their offshore business processing activities. To assess this first aspect, we looked into “The Growth Competitiveness Index” (GCI), which is part of the “Global Competitiveness Report” issued by the World Economic Forum in 2004. This index evaluates the competitiveness of 102 heterogeneous countries that account for 97.8 percent of the world’s GDP.

The GCI is rooted in three central aspects:

- the macroeconomic environment

- the quality of public institutions

- technological progress

In less developed economies, which is the case of the countries that are developing important offshore business because of the low cost they can offer (among other aspects), the improvement on institutions and on the macroeconomic policy can have important effects on growth and the chances of maintaining the competitive advantage to provide this type of services to the developed world. Unstable economic environment exposes
business models to for instance, sudden shifts in the exchange rate or in the overall institutional framework that may threaten the accomplishment of previous contractual commitments.

The technological progress measured in this index is more relevant for more developed countries, which will find higher productivity rates and growth opportunities through innovation. However, for less developed economies this aspect is important because rather than through innovation they can achieve productivity improvements by being prepared to capture the technology spill over and copying or adopting the knowledge previously developed by the innovators.

So, what do we found if we compare from the GCI perspective the four Latin American countries versus India?

<table>
<thead>
<tr>
<th>Growth Competitiveness Index (GCI)</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Mexico</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita (PPP adjusted in $)</td>
<td>10,594</td>
<td>7,516</td>
<td>9,561</td>
<td>8,707</td>
<td>2,571</td>
</tr>
<tr>
<td>Total GCI 2003</td>
<td>78</td>
<td>54</td>
<td>28</td>
<td>47</td>
<td>56</td>
</tr>
<tr>
<td>- Macroeconomic Environment Index</td>
<td>93</td>
<td>75</td>
<td>35</td>
<td>54</td>
<td>52</td>
</tr>
<tr>
<td>- Public Institutions Index</td>
<td>88</td>
<td>53</td>
<td>19</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>- Technology Index</td>
<td>45</td>
<td>35</td>
<td>31</td>
<td>43</td>
<td>64</td>
</tr>
</tbody>
</table>


Looking to the overall index, all the countries (except Argentina which is heavily affected in the first two categories by the financial crisis of December 2001) are located very close in the middle range of the 102 countries evaluated. Clearly, Chile stands in first placed because of its solid macroeconomic stability and the quality of its institutions. In addition, Argentina needs to improve on both fronts since these two aspects are
critical to provide stability and confidence needed in outsourcing contracts to not be negatively impacted by sudden changes.

Moreover, in assessing the country’s performances, many economists still attribute differences in the productivity of countries to differences in their labor and capital markets. These economists therefore believe that big investments in education and health and generous development loans and grants are the keys to economic growth. However, a McKinsey’s research, found that these factors explain few, if any, differences in economic performance. And that this truth holds for poor countries as well. For instance, some of Brazil’s private retail banks are as efficient as any other in the world.

Though, as mentioned before, this is not a capital intensive business the same research, found that a lack of capital to finance investment isn’t the main constraint on growth in poor economies. If local businesses organized and managed themselves as the world best companies do, they would unleash rapid productivity growth.

Thus, poor countries don’t have to wait until they build bigger and better school systems and educate a whole generation of workers. Nor do they need to wait for more development aid from rich countries. If local businesses followed the proven approaches for organizing production and managing a workforce, poor countries could grow much faster than most people realize. Domestic savers and foreign investors hungry for good returns would also supply these countries with plenty of capital for new investments.
However it is also true that besides the economics, the public sector also establishes regulations and policies that sometimes stand in the way of competition and prevent innovation from spreading out. Such policies might exclude potential competitors, such as start-ups or foreign companies, or might favor particular classes of companies. Often, policies have unintended consequences for business. When they do, competition is less intense and inefficient companies aren’t pressured to change. Productivity growth is slower and countries remain poor.

For instance, in Brazil about 50 percent of its workers aren’t registered with the government. Although many of these people are poor and wouldn’t be taxed heavily, the total revenue forgone is substantial because of the number of workers involved. As a result, Brazil must collect twice as much in profit, employment, value-added, and sales taxes from corporations as the United States does to finance its government. When taxes are included, it costs more productive companies as much to do business as it costs less productive, informal ones, which don’t pay taxes. Modern, productive enterprises can’t easily take market share from their unproductive counterparts, and the economy’s natural evolution is stymied.

Thus, with no doubt the macro environment is a key component to provide a fertile ground for the growth of the offshore business and support the development of a cluster that will reinforce the individual competences through collaboration of related industries, supply of different types of industries, and rivalry among firms that will create the necessary pressure to keep improving in service levels and quality controls.
To measure the competitiveness of a country it is not correct to rely on its’ share of the world markets for its products or services. This can be achieved because of the need of low wages that reveals a lack of competitiveness. Another example is devaluation that results in collective pay cut by discounting products and services sold in world markets while raising the cost of the goods and services purchased abroad.Exports based on low wages or a cheap currency, then, are subject to changes in these aspects that can affect the continuity of the service.

The productivity of a country is ultimately set by the productivity of its companies. However, the sophistication and productivity of companies is fully connected with the quality of the national business environment. More productive companies require more highly skilled people, better information, more efficient government processes, improved infrastructure, better suppliers, more advanced research institutions, and more intense competitive pressure, among other things.

So, in second place, we evaluated the microeconomic level to assess the ability of firms to create valuable goods and services using efficient methods.

To better understand the micro environment we also looked into an official study of the Global Competitiveness Report of 2004, The Business Competitiveness Index (BCI), conducted by Michael Porter. In addition, we will present specific data regarding the key aspects of offshoring in each country.
The BCI considers that productivity at the firm level is rotted in two connected areas: a) the sophistication with which domestic companies or foreign subsidiaries operating in the country compete, and b) the quality of the microeconomic business environment in which they operate.

What does the BCI from the World Economic Forum shows?

<table>
<thead>
<tr>
<th>Business Competitiveness Index (BCI)</th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Mexico</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>35</td>
<td>32</td>
<td>47</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>34</td>
<td>34</td>
<td>23</td>
<td>39</td>
<td>44</td>
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</tbody>
</table>

- Company operations and strategy ranking

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Company operations and strategy ranking</td>
<td>60</td>
<td>30</td>
<td>34</td>
<td>37</td>
<td>40</td>
</tr>
<tr>
<td>1998</td>
<td>30</td>
<td>27</td>
<td>25</td>
<td>29</td>
<td>50</td>
</tr>
</tbody>
</table>

- Quality of the national business environment ranking

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Quality of the national business environment ranking</td>
<td>65</td>
<td>39</td>
<td>30</td>
<td>50</td>
<td>36</td>
</tr>
<tr>
<td>1998</td>
<td>34</td>
<td>39</td>
<td>24</td>
<td>41</td>
<td>42</td>
</tr>
</tbody>
</table>


From this perspective again we see that all the countries, except Argentina are ranked very close, with the particularity of Brazil, Chile, and India being nearly in an identical position.

Actually, in the offshore supply analysis presented above we see that a recent A.T. Kearney “Where to locate” 2003 (though it is U.S. biased), Brazil and Mexico are ranked third and fourth respectively.

In the BCI, we can also appreciate the evolution on the last six years. India improved from 44 to 37, while all the other countries have lost ground on this dimension after the 1998 rankings that incorporate the effects the economic transformation and privatization processes present in most of the
Latin American economies in the 90’s. The key note is Argentina that again shows an important deterioration in its ranking due to the political and financial crisis of 2001.

Having looked into the overall characteristics of these countries we have concluded that the Latin American countries perform similarly in macro terms to India, and also have similar business competitive capabilities.

Because we mentioned that one of the pillars of the offshore business is the cost advantage, we observe that the supply is concentrated on countries with poor or medium economic performance and low or medium GDP per capita. However, the combination requires countries to posses key capabilities at the firm level that allow them to participate in the offshore business. The paradox is that an improvement in the GCI, because an increase in macroeconomic performance and GDP per capita can threaten the basis of the offshore model for some countries. For instance, the increasing participation of the offshore business sector in the total GDP of a country will bring positive numbers to the overall ranking, but increase the demand pressure on salaries affecting the margins of the business. At the macro level, an improvement in the value of the local currency will also negatively affect the competitiveness on prices.

Third, we have evaluated specific aspects for each country and conducted a SWOT analysis in order to finally assess if these countries can succeed as a supplier of offshore services.
<table>
<thead>
<tr>
<th></th>
<th>Argentina</th>
<th>Brazil</th>
<th>Chile</th>
<th>Mexico</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (millions)</td>
<td>38.7</td>
<td>182</td>
<td>15.7</td>
<td>105</td>
<td>1,000</td>
</tr>
<tr>
<td>Geopolitical Risk</td>
<td>high</td>
<td>moderate</td>
<td>moderate</td>
<td>low</td>
<td>moderate</td>
</tr>
<tr>
<td>English proficiency</td>
<td>fair</td>
<td>poor</td>
<td>Poor</td>
<td>poor</td>
<td>good</td>
</tr>
<tr>
<td>Average programmer salary</td>
<td>$4K - $12K</td>
<td>less than $4K</td>
<td>$4K - $12K</td>
<td>less than $4K</td>
<td>$4K - $12K</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>good</td>
<td>good</td>
<td>Good</td>
<td>good</td>
<td>good</td>
</tr>
</tbody>
</table>
| Strengths            | - well educated people to deliver high-level services  
                       - English/Spanish  
                       - similar time zones w/US  
                       - cultural fit with Europe      
                       - good IT skills  
                       - supply of IT graduates  
                       - stable regulations  
                       - lower cost basis than U.S.  
                       - NAFTA member, easy travel  
                       - low geopolitical risk  
                       - similar time zones  
                       - English-speaking country  
                       - low cost  
                       - high number of IT graduates  
                       - first mover advantage |
| Weaknesses           | - low supply of IT HR  
                       - language barrier (poor Spanish and poor English)  
                       - low entrepreneurship  
                       - not well know for engineering skills  
                       - language barrier  
                       - enforcement of IP laws  
                       - poor infrastructure  
                       - distance  
                       - increase competition from other emerging countries  
                       - demand may dominate supply |
| Opportunities        | - overall outsourcing potential  
                       - outsourcing local market  
                       - low-end, high volume projects  
                       - service Spanish market in U.S.  
                       - demand for significant periodic onsite services delivery  
                       - high-end projects |
<table>
<thead>
<tr>
<th>Threats</th>
<th>component</th>
</tr>
</thead>
<tbody>
<tr>
<td>- appreciation of peso</td>
<td>- intellectual property protection</td>
</tr>
<tr>
<td></td>
<td>- employee retention</td>
</tr>
<tr>
<td></td>
<td>- government efforts to boost IT industry do not succeed</td>
</tr>
<tr>
<td></td>
<td>- overheating of the industry</td>
</tr>
</tbody>
</table>
4. Conclusions

In conclusion, though today India is the most dominant region in offshore outsourcing delivery, a number of other countries, including Canada, Mexico, and other Central and Latin American countries are emerging as leading nearshore IT and business service providers to North American and European customers.

Mexico, as it is for Canada, is included in the category of similar time zone or nearshore locations that are viewed as complementary and alternative sourcing options to onshore and offshore locations. Mexico offers cost advantages over local services in the U.S. and is the natural location for Spanish speaking services. In addition, because Mexico is part of the NAFTA, it benefits from having a stable relationship with the U.S., strong communications, and travel networks.

Argentina, as the other Latin American countries, has a similar time zone with the U.S. though it takes an 11-hours flight to connect this two countries. The call centers segment of the business has developed considerably in the last year. The major telecommunications companies, Telecom and Telefónica have important call centers facilities servicing local needs and Spanish company’s demands. Another example that shows the potential for offshoring is that in March 2004, TeleperformanceUSA acquired 65% of an Argentinean company, Software del Plata (SDP), a leading provider of outsourced Customer Relationship Management services and contact center solutions with over 1,400 computerized workstations and more than 2,000 employees conducting programs in various languages. The company
manages customer service, inbound and outbound telemarketing, technical support, debt collection and market research programs on behalf of clients from various countries, such as U.S., Spain, Chile, and other Latin American countries. Norberto Varas, CEO of now Teleperformance Argentina, referring to the acquisition mentioned that: "SDP's particular expertise in the IT and telecommunications industry sectors enable Teleperformance Argentina to strengthen its position in its domestic market and across Latin America. Also the acquisition will contribute towards the continued development of our offshore business on behalf of U.S. and Spanish companies."

Another interesting case in Argentina is the Motorola’s software center in Córdoba province. Motorola’s plan is to have 500 software engineers to be part of the Global Software Group, which has operations in 15 different countries with more than 3,000 IT engineers.

Certainly, these companies among others are recognizing the value that can be created by taking advantage of the low cost and high quality of IT and software engineers and management. Brazil and Chile also have similar characteristics as shown above and the potential to develop an important sector of the economy in BPO services and software development. The Brazilian government, have already set as a priority the development of the software and semiconductors industries that will support the creation of an important IT cluster.

In sum, these countries will not take the current leaders position. However, besides the macroeconomic and political risks involved, we see
that each of these Latin American countries based of their low cost structure and other specific capabilities are advancing in capturing a share of the worlds BPO and software related services.