IS SOURCING

EVALUATING A COUNTRY FOR OFFSHORE OUTSOURCING: SOFTWARE DEVELOPMENT PROVIDERS IN THE UKRAINE

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IS outsourcing is increasingly viewed as a cost-effective and fast way to get access to highly skilled, scarce resources located abroad. Locations such as India and Ireland are recognized as established offshore outsourcing locations. When evaluating other countries as potential outsourcing locations, Western managers need to consider a wide range of factors. This article uses a published framework to evaluate the software industry within the Ukraine.

OFFSHORE IS OUTSOURCING HAS BEEN an area of growing interest for many companies and increasingly plays an important role in the IT strategies of major corporations. Labor costs in emerging economies are significantly lower than in developed countries, and the technology skills to deliver complex custom applications and advanced Web-based solutions are increasingly found in nations outside advanced economies. The availability and costs of these skilled resources are primary motivators for businesses to move IS work offshore. Industry analysts, academics, and practitioners are predicting steady growth of demand for IT offshore development and maintenance.

Countries such as India and Ireland have already established themselves as market leaders with recognized outsourcing industries. India currently dominates the global outsourcing market and accounts for approximately 80 to 95 percent of the total software export value. India has the advantage of low prices and a huge skilled workforce. Ireland is also a recognized outsourcing leader; although its cost base is higher, it can compete on the basis of country stability, service quality, and its native English-speaking workforce.

Although established offshore outsourcing locations are attractive to Western business organizations, the arena is constantly changing. India will no doubt continue to be an important
TABLE 1 Country Selection Framework

Human Expertise and Resources:
- Availability of skilled resources
- Educational system
- English proficiency
- Marketing skills, etc.
- Software/hardware

Country Infrastructure:
- Political stability
- Government support
- Regulatory environment
- Communications infrastructure, etc.

Cultural Issues:
- Work style
- Communication techniques
- Revere hierarchy, etc.

offshore outsourcing location, although there are doubts that India alone can match Western demands for offshore IT services. To reduce the risks of dependence on a single country, executives also have an option to globally diversify their offshore activities. This gives countries like the Ukraine, Russia, Baltic States, and other not so well-recognized players an opportunity to compete for offshore outsourcing market share in the global marketplace.

This article uses a previously published framework for evaluating the potential of the Ukraine as an offshore outsourcing location, as described below.

COUNTRY SELECTION MODEL

When considering a new offshore location for IT outsourcing, a range of different factors must be considered. It is also generally recognized that executives must consider country suitability for offshore projects before they consider individual vendor expertise. The motto coined by Gartner Group's analysts is "country before company." Indeed, if executives are going to mitigate risks through geographic diversification, then this would suggest that they need to carefully consider offshore country-related factors.

A useful framework for evaluating a potential offshore outsourcing country has been developed by Terdiman and Berg (2001) and published by the Gartner Group. As shown in Table 1, in addition to labor market factors, the framework assesses four factors related to the infrastructure of the country and several cultural issues.

To evaluate these criteria for the Ukraine, the authors designed a questionnaire based on the country selection framework of Terdiman and Berg in Table 1. A sample of 30 major Ukrainian software development providers were approached and asked to participate in the study via mailed survey. A total of 16 fully answered questionnaires were received (a 53 percent response rate). Specifically, the software providers were asked to provide information on the level of outsourcing work within their business and to answer questions about a wide range of topics based on the framework, which are outlined below:

- Country infrastructure:
  - The political stability of the Ukraine and extent of government support
  - The regulatory environment within the country and whether factors such as intellectual property law and export regulations negatively impacted their business
  - The communication infrastructure, the type of facilities the business uses, and whether the communications infrastructure is adequate for conducting business

- Human expertise and resources:
  - Quality certification
  - The availability of skilled labor resources
  - The competence of IT graduates and their training program provision
  - Foreign language proficiency
  - Knowledge of Western business practices

- Cultural issues:
  - Cultural difficulties and issues when engaged in offshore projects

Information on the Ukraine from other sources was also used to help construct a descriptive picture and to evaluate the potential of the Ukraine as an offshore sourcing location. Below we provide a general description of the country, followed by our findings for different factors in the country selection model.

INTRODUCTION TO THE UKRAINE

The Ukraine is the second largest country in Europe, bordering the Black Sea between Poland and Russia. The country is situated in the geographical center of Europe and has a total landmass of 603,700 square kilometers, with a population of 49 million people.

After reestablishing its independence in 1991, the country initially experienced a drastic downturn in economic conditions. In 1994, the government of Ukraine developed an ambitious program of reforms. However, the proclaimed reform measures did not lead to substantial long-term growth of the economy. In late 1999, a new government led by V. Yushchenko and composed of progressive officials...
began to improve the economy of the country. In 2000, a six percent growth of real GDP (Gross Domestic Product) was achieved for the first time since independence, and this has been perceived as a turning point for the whole economy. Since 2000, the Ukrainian economy has grown steadily.

There are many Ukrainian software companies that are poised to play a role in the global IT economy. Ukrainian outsourcing providers have the ability to compete on a cost basis, which is considerably lower than in Western countries. For example, in the Ukraine, rates for software developers currently start as low as $12 per hour. On average, then, clients from developed economies should expect up to 50 to 60 percent cost savings. These lower costs and the constantly improving work quality of Ukrainian providers have attracted many well-known Fortune 500 companies. For example, Tessart (Ukraine) successfully provides IS services for Delta Airlines. TelezensKSCI (Ukraine) provides services to Deutsche Telecom, British Telecom, and others. The Ukrainian supplier Eleks Software provides services for the U.S. State of New Jersey. In addition, companies such as Xerox and Motorola have established their own development facilities in the country.

In the past, most offshore work performed by Ukrainian providers has been software development and Web design and development. With market maturation in recent years, we increasingly see providers completing sophisticated projects involving software engineering, application integration, ERP systems, and consulting.

COUNTRY INFRASTRUCTURE
Political and Economic Stability
Political and economic stability is a key factor not only to clients, but also to offshore providers. The consultants PricewaterhouseCoopers (2001) describe Ukraine as a country that “focuses on fostering closer integration with the rest of the world.” One of the main government priorities is integration into the European Union and joining the World Trade Organization. Although Ukraine is considered by some to be a more stable country than India or Pakistan in a geo-political and economic context, there are some political uncertainties. For example, the country’s stability is constrained by the interests of large Ukrainian financial groups and several parliament divisions.

Government and Association Support
Government support plays a critical role in offshore outsourcing. The degree of government support provided in the global market differs from country to country. Some countries such as the Philippines have managed to raise large offshore industries with little or no government support. Others, mostly market leaders, have enjoyed great support from their governments that has allowed the industry to progress faster.

There is no evidence of practical governmental initiatives to support the offshore industry in Ukraine. Officially, the government supports “informatization,” including software export development. However, effective realization of proclaimed promotions has not been perceived by the software firms sampled: the providers in Ukraine must rely purely on their own capabilities and resources. Unlike Indian or Irish companies, the Ukrainian offshore industry has not until recently been regarded as a priority industry by the government.

However, several associations provide support for software firms in the Ukraine, including an industry association (Ukrainian Association of Software Developers, or UASWD) and a professional organization (IT Committee of American Chamber of Commerce in Ukraine). Although a lot of providers are not currently engaged in any sort of association memberships, they indicated a plan to join one in the near future.

The UASWD is a fairly young, non-government organization recently formed to promote the growth of the Ukrainian software industry. Although it has not yet had time to make a significant contribution, this industry association has recently gained momentum and has begun to participate in many major outsourcing events, cooperate with other countries’ software associations, and develop educational and certification programs.

The IT Committee of the American Chamber of Commerce in the Ukraine is a professional organization dedicated to IT market development in the Ukraine and was formed by its member companies. Open to international companies, it is one of the leading international business associations in the Ukraine that promotes private enterprise and supports/reports interests of its members. Current members include American companies such as General Electric, Microsoft, General Motors, Coca-Cola, as well as European companies such as Siemens, Credit Lyonnais, and Scania.
Legal and Regulatory Environment

The regulatory environment and legal framework of a country can offer protection to those companies that utilize offshore outsourcing services. Encryption laws, labor laws, data protection laws, and intellectual property laws were not issues for the majority of the software providers in our sample.

However, the majority of the software providers also reported that the Ukraine has an unfavorable legal and regulatory environment. The major areas of concern were taxation, visa regulations, and import/export regulations. In particular, the Ukrainian taxation system is viewed as inefficient and complicated: and to avoid problems with taxation bodies, some software providers are unwilling to publicize and legalize their revenues. This concern has also been voiced by the IT Committee of the American Chamber of Commerce in Ukraine and UASWD.

Communications Infrastructure

The offshore outsourcing industry is highly dependent on a good communications infrastructure. However, the Ukraine plans to improve its national telecommunication infrastructure as it strives for membership in the European Union. Currently, it is not one of the best prepared in this area due to a lack of investment.

The current communications infrastructure is adequate to conduct offshore outsourcing. The majority of firms are well equipped with essential communication technologies. Almost all surveyed firms possess fax facilities and multilingual Web sites. Groupware platforms are also common tools among the software providers. Nevertheless, Ukraine’s current telecommunications infrastructure capability does not allow most of the software providers to have advanced facilities such as videoconferencing and satellite connections.

Quality Initiatives

Quality certification plays an important role within the outsourcing industry. Recognizing this fact, the majority of the Ukrainian firms concentrate their efforts on two major types of certification: ISO and SEI/CMM. However, the research results showed that while 75 percent of the respondents believed that quality certification by international bodies is important, only 25 percent of the Ukrainian software development companies have obtained quality certification.

The main reasons for this certification gap appear to be due to financial difficulties and a lack of certification bodies within the Ukraine. The industry association UASWD has already undertaken the first steps toward becoming a formal CMM certification center in the Ukraine. The majority of the companies planned to have their processes certified within a two-year period and had undertaken initial steps to implementing CMM procedures and internally assessing their quality assurance processes.

HUMAN EXPERTISE AND RESOURCES

Skilled resources

The availability of skilled human resources within a country is essential to support offshore outsourcing. The Ukrainian labor force has significant software development skills. The UASWD estimated in the year 2000 that there were 40,000 to 60,000 persons potentially able to be engaged in programming activities. An American Chamber of Commerce survey reports high technical excellence of the labor force with all the needed up-to-date technical skills. Ukrainian companies also have a strong research and development tradition that fosters a spirit of creativity.

Although the outsourcing providers stated that they experience high employee turnover, they also stated it was not so high as to have a considerable impact on their businesses. Ukrainian software developers’ wages are significantly lower than those in more developed countries. However, as software developers command higher wages than those working in many other sectors of the Ukrainian economy, this wage differential is expected to induce more and more people to go into computing-related educational fields and to subsequently apply for jobs within this sector.

Educational System

The Ukraine has a great advantage over competitor countries due to a sound educational system. For example, there is a 98 percent literacy rate in Ukraine, compared to only 52 percent in India, the offshore outsourcing market leader (The World Fact Book, 2002). The Ukrainian education system inherited from the Soviet Union has proven to be good in the engineering and technical disciplines. Many software developers in the country have applied mathematics and physics backgrounds, which has a positive effect on the growth of the computing industry.
Although the Ukraine outsourcing providers find that the skills of recent IT graduates are not always up-to-date due to fast technology changes (a perennial problem), the Ukrainian software companies are very satisfied with the skill levels of their IT graduates. The educational system is well structured and supported: multinational companies like Motorola, Hewlett-Packard, and Dell have provided equipment and support for some of the country’s educational institutions. Motorola has also established its own direct investment software subsidiary within the country and has publicly stated its intention to stay and grow in the Ukraine.

Foreign Language Proficiency
To ensure effective, good communication about an offshore outsourcing project, it is essential that team members can effectively communicate in a common language. Higher education in the Ukraine provides foreign language courses for students studying computer disciplines, so that software developers can obtain adequate language skills. The percentage of the foreign language-speaking workforce varies considerably from firm to firm and largely depends on the provider’s market orientation. However, on average, more than 50 percent of a firm’s workforce is foreign language proficient and English is the predominant foreign language. As graduates are attracted to working in software development, it is likely that they will also seek to enhance their language skills to help ensure their career prospects.

Marketing and Other Business Skills
Despite having good technical expertise, the lack of business, marketing, and management knowledge impedes some of the smaller software providers within the IT industry. Ukrainian companies have only started to employ Western practices since independence, so this area is still immature. Dealing with overseas partners also requires help from analysts that are familiar with Western business methods in general. Only the bigger, well-established software provider firms have the resources to employ experienced expatriates, MBA graduates, or other specialists from the West.

CULTURAL ISSUES
Cultural compatibility has always been one of the more difficult aspects to assess. An understanding of cultural differences is a challenge not only to offshore clients, but also to offshore providers. Geographically and historically, the Ukraine is Eastern European and is keen to forge closer links with Western Europe. The overall perception is that the European outlook of Ukrainians and the desire to embrace Western practices are positive factors.

IMPLICATIONS FOR EXECUTIVES
The country selection framework in Table 1 provides a useful set of factors to consider when evaluating a country as a long-term outsourcing provider. The Ukraine and other countries provide Western executives with the opportunity to mitigate risk through geographic diversification of their offshore outsourcing activities.

This article described the potential of the Ukraine in the global offshore outsourcing market, based primarily on the factors in the previously published framework. The main conclusion drawn is that the Ukrainian industry is still very young but possesses many of the necessary attributes needed to foster successful offshore outsourcing.

Specifically, the Ukraine can provide a talented and cost-effective labor force. The cultural similarity of Ukrainians to Westerners helps offshore teams run smoothly and efficiently, as cultural differences are minimized by geography and the European outlook of Ukrainians. A sound educational system and the desire to embrace Western practices are positive factors. However, executives are advised to pay particular attention to the Ukraine’s legal and tax systems before embarking on shifting IT activities to this country.

CONCLUSION
Based on our survey, Ukrainian software providers are optimistic about the future of their industry. They hold a strong belief that, given time, the Ukraine will become a significant player in the offshore outsourcing global marketplace. There are many companies that already successfully outsource their IT activities to the Ukraine, among them Delta Airlines, Scania, and Barclays Asset Finance. Executives should keep their eyes focused on the possibilities of utilizing the untapped resources of this country as providers of offshore services.
References


Professional Association Contacts
IT Committee of American Chamber of Commerce in Ukraine: http://www.amcham.kiev.ua.