

Statistical and Analytical Basis for Establishing IT Offshore Outsourcing Company in Kharkov (Ukraine)

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Software Systems and Applications,
August 2006

ABSTRACT

This paper is a basis for software companies that are going to move part of their business to Ukraine. The paper analyses Kharkov region in Ukraine for global IT offshore outsourcing market and proposes thorough discussion of Kharkov region as a leading region in the Ukrainian IT sector. All important aspects such as education level, cultural issues, technological infrastructure, property costs, salary level, laws observance are taken into account. This review also proposes the analysis of other developed regions in Ukraine and compares them with Kharkov region. This paper is based on direct observation and official documents listed in references.

ABBREVIATIONS

WTO – World Trade Organization
GDP – Gross Domestic Product
CPI – Consumer Price Index
YOY – Year over Year
EU – European Union
IT – Information Technology

CONTENTS

INTRODUCTION.....	5
1. UKRAINE AS A POTENTIAL COUNTY FOR OFFSHORE.....	5
1.1 Human expertise and resources	6
1.2 Country infrastructure	6
1.2.1 Geography and territory.....	6
1.2.2 Political situation	6
1.3 Culture.....	7
2. ANALYSIS OF POSSIBLE REGIONS FOR OFFSHORE IN UKRAINE	8
2.1 Population and infrastructure.....	8
2.2 Education system and IT-related Institutions.....	9
2.3 Property prices	9
2.4 Average salaries in IT-sector for different specialities	10
2.5 Law observance and Safety	10
3. CONCLUSIONS.....	11
REFERENCES	12

INTRODUCTION

Offshore term in the IT world means the business of outsourcing software programming and engineering services involving companies beyond national boundaries.

Offshore IT outsourcing market is growing rapidly all over the world. For example in the United States the study of 288 executives, conducted for Capgemini by CFO Research Inc., shows that 72.9 percent of the U.S. based companies plan to outsource more functions in the

coming years — and 22.6 percent are interested in outsourcing “a broad range of functions and processes” or “everything that’s not core to the business” [1]. The same situation we can see in Europe, where demand for offshore outsourcing services among the UK and European companies is set to increase by 50 per cent per year over the next two years, according to Gartner [10]. Globally the analysts predict the number of organizations doing offshore outsourcing will increase from 13 percent to 20 percent over the same period [2].

1. UKRAINE AS A POTENTIAL COUNTY FOR OFFSHORE

There are two main reasons for companies to move software development to the foreign partners and maintenance offshore:

1. Cost advantage;
2. Demand for high-skilled developers.

However, there are risks of unaccomplished projects and losing money due to economical, cultural or political issues in the country. To be sure in foreign partners, first of all a country, where business is going to be moved, has to correspond to stability and suitability requirements for the following criteria model [3]:

1. Human expertise and resources
 - 1.1 Availability of skilled resources
 - 1.2 Educational system
 - 1.3 English language proficiency
2. Country infrastructure
 - 2.1 Location
 - 2.2 Political and economical stability
 - 2.3 Government support
3. Cultural issues
 - 3.1 Work style
 - 3.2 Communication techniques
 - 3.3 Respect of hierarchy

Let’s consider Ukraine as a potential offshore country according to this model.

1.1 HUMAN EXPERTISE AND RESOURCES

Ukraine's large scientific and technological capital and impressive technology resources are based on the country's education system that comprises approximately 966 higher educational institutions. About 87% of high school graduates are going on to higher education. This amounts to 1.3 million students studying at 347 universities. According to UNESCO, Ukraine has more students per 10,000 population (249) than Japan (240) or Great Britain (220). Approximately 7,000 students graduate from Ukraine's institutes and universities annually in disciplines that enable them to become software professionals. On average, the number of

students entering IT programs each year is increasing by 10-15%, with significant competition for the 50 places available in each program.

In 2005, Ukraine was the 5th in the rank as per the number of certified programmers according to BrainBench [11].

Most schools in Ukraine have English courses. Moreover, in all state universities two-year English courses are also essential. So, most young Ukrainian people having master degree have no problems communicating in English fluently.

1.2 COUNTRY INFRASTRUCTURE

1.2.1 GEOGRAPHY AND TERRITORY

Ukraine is situated in the south-eastern part of Central Europe and has its own territory, government, national emblem, flag and anthem. It borders on Russia, Byelorussia, Moldova, Slovakia, Romania, Hungary and Poland on land and Russia,

Georgia, Bulgaria, Romania and Turkey on sea. It has a 1-2 hour time difference with the rest of Europe and some 2-3 hours in air travel time to any major European city. It is the second largest country in Europe by area, and the fifth largest by population.

1.2.2 POLITICAL SITUATION

Political situation was changed completely in Ukraine in November-December 2004 during the events around the presidential elections that led to the Orange Revolution. During the Orange Revolution, the

Ukrainian people have shown their devotion to the democratic ideals and prevented the worst scenario from happening, bringing the legitimately elected president to the power. The new Ukrainian government

has clearly voiced its intentions to move towards the goal of joining the EU and is making logical steps in that direction. The overall political situation in the country is stable and predictable. There was short period after new parliament elections, when government didn't work properly, but it has finished. Presently there are no grounds for political instability.

Despite large political changes in Ukraine in 2005-2006 year its economics grows steadily. The following facts about situation in economics for January-July, 2006 period could demonstrate and prove its stability [4]:

1. In June there was the first attempt to create a parliament coalition.
2. In the first quarter of 2006 the current budget was in deficit of USD 0.7 bn.
3. In June 2006 Ukraine continued the process of the WTO accession. Ukraine will become a member of this organization during 2006-2007 years.
4. During January — May 2006 period the central fiscal deficit reached 0.9% of GDP.
5. About 1.7% of householders received utility and housing subsidies during first five months of 2006.

6. The CPI growth decelerated to 6.8% yoy in June.

7. In August 2006 Ukrainian parliament created a coalition and established a new government.

The new Ukrainian government is showing its extreme interest and support to foreign investments into the country's economy and international cooperation. While Ukraine moves towards joining the EU and WTO, the laws, including those covering the IT issues, are being revised to create better environment for the economy's development and growth. This applies to the software development as well, IT being the most rapidly developing area of the Ukrainian economics.

The volume of export of Ukrainian IT services and products in 2005 rose by \$40 millions or 57% to \$110 millions in 2004. The export of the IT sector of the Ukrainian economy develops most dynamically. At the same time, the official number of IT specialists operating on the market reached 15,000 toward the end of 2004. This was an increase of 50%, comparing to 2003 [5].

1.3 CULTURE

Culture is not an easy topic to analyze. This domain is new for software professionals not only in Ukraine but also all over the world. Many people involved in offshore IT services believe that culture is never a problem. In any case Ukraine is a European nation, and the mentality of people does not differ greatly from Europe or the United States. Most people in Ukraine are members of the Orthodox Church. Many Ukrainian IT specialists used to go to the Western Europe and USA and work for IT companies. This is why they are familiar with the workflow and working culture in European and American software development companies. Moreover, different international agencies are now offering courses in management

providing necessary management skills to the Ukrainian specialists as well as essential communication skills. Also it becomes very popular for software companies to pay off such courses for their staff. In Ukraine there are several agencies which provide such services and particularly in Kharkov the most popular agency is International House where any student can communicate with native speakers not only on English but also German, Spanish, French, Italian. Finally, it should be said that thanks to cultural treat of Ukrainian people and widespread specialized agencies any business processes in software sector can be organized on a high level and according to the international standards.

2. ANALYSIS OF POSSIBLE REGIONS FOR OFFSHORE IN UKRAINE

It is useful to analyze regions which are the most attractive for international companies from several points of view. The following criteria will be analyzed:

1. Number of citizens in the city;
2. Infrastructure (Internet service providers, IT-related organizations, existing offshore companies and centres);
3. Number of IT-related Institutions and Universities;

4. Average salary for IT specialists;
5. Property prices for renting and buying;
6. Laws observance level and Safety level.

In order to obtain unbiased situation the following largest cities of Ukraine will be compared: Kiev, Kharkov, Dnipropetrovsk, Donetsk, Zaporozhye, Odessa, Lviv.

2.1 POPULATION AND INFRASTRUCTURE

Table 1 – Number of citizens [6]:

City	Kiev	Kharkov	Dniep'sk	Donetsk	Zaporozhye	Odessa	Lviv
Population, millions	2,63	1,5	1,1	1,05	0,848	1,002	0,788

Table 2 — Number of ISP [7].

City	Kiev	Kharkov	Dniep'sk	Donetsk	Zaporozhye	Odessa	Lviv
Number	103	50	16	20	13	16	19

Table 3 — Number of IT-related organizations [7,8]:

City	Kiev	Kharkov	Dniep'sk	Donetsk	Zaporozhye	Odessa	Lviv
Number	1220	840	167	133	88	110	101

Table 4 – Number of existing offshore companies and centers [7, 8]

City	Kiev	Kharkov	Dniep'sk	Donetsk	Zaporozhye	Odessa	Lviv
Number	186	80	22	22	9	14	8

2.2 EDUCATION SYSTEM AND IT-RELATED INSTITUTIONS

Success of any business and in any region depends on the most important factor — high skilled human resources. This criterion will be estimated basing

on education system and particularly on number of IT-related Institutions and Universities and number of IT specialties in these institutions [7, 8].

Table 5 – Number of IT-related Institutions and Universities

City	Kiev	Kharkov	Dniep'sk	Donetsk	Zaporozhye	Odessa	Lviv
Number of Institutions	111	96	16	18	9	15	20
Number of specialities	146	316	41	48	25	39	54

Despite the number of education institutions is less than in Kiev, total number of IT-specialties is much higher due to technical orientation of education, while in Kiev business and liberal-

oriented specialities are more popular. According to this analysis Kharkov is a leading city in Ukraine from the point of view of number of qualified specialists for IT industry.

2.3 PROPERTY PRICES

As it was mentioned above one of the main reasons for companies to involve offshore development is a cost advantage. Two following factors which influence on this reason will be considered: average salary of

specialists in IT sector and property prices for renting and buying. Table 6 shows average prices for renting and buying in USD per 1 square meter in different regions of Ukraine [7, 8].

Table 6 – Average rental fee and property price per 1 square meter, \$

City	Kiev	Kharkov	Dniep'sk	Donetsk	Zaporozhye	Odessa	Lviv
Renting	20	10	10.2	9.1	6.5	9.5	7.2
Buying	1500	800	800	700	500	850	550

According to the table above property prices in Kharkov is less than in Kiev but higher than in Zaporozhye and Lviv.

2.4 AVERAGE SALARIES IN IT-SECTOR FOR DIFFERENT SPECIALITIES

Table 7 presents average salaries for different IT-specialities in the cities of Ukraine.

In the table below values show monthly salary in USD after taxes [7, 8, 13].

Table 7 – Average salaries in IT-sector for different regions of Ukraine, \$

City	Kiev	Kharkov	Dniep'sk	Donetsk	Zaporozhye	Odessa	Lviv
Systems/Information Manager	920	710	832	732	650	740	770
Systems Analyst	1500	950	940	940	820	930	810
Network Administrator	700	400	500	450	410	460	440
Software Development Manager	900	600	760	710	620	700	630
Software Administrator	632	420	480	450	430	440	440
Customer Support Engineer	741	350	625	530	310	550	335
Service Engineer	575	370	485	425	320	430	340
Software Engineer	584	400	414	410	350	400	360
Programmer Analyst	1224	850	980	910	600	900	700

2.5 LAW OBSERVANCE AND SAFETY

The last one but very important point is laws observance in a region and safety of your business. According to the statistics of Ministry of Internal Affairs of Ukraine [9], the most criminal and unsafe regions are Dniepropertovsk, Donetsk, Zaporozhye and Odessa. According to statistics of Institute for Economic Research and Policy Consulting [12] the highest growing level of grave crimes was registered in

the following regions: Odessa (30%), Zaporozhye (19.4%), Lviv (15.6%). Also organized crime level has grown mostly in Donetsk (52 groups, 375 crimes) and Dniepropertovsk (46 groups, 312 crimes). But according to the last report of Ukrainian government overall crime level has been decreased during 2006 year by 20%.

3. CONCLUSIONS

Finally, comparing all the results and statistics above, two regions in Ukraine are the most attractive for offshore development centres so far. These regions are Kiev and Kharkov. But from the financial point of view Kharkov is the leading city in Ukraine thanks to the comparatively low prices for property renting or buying and high number of qualified IT-specialists. These facts mean that IT-market in Kharkov is

progressing. Kharkov has ideal conditions for foreign companies to establish their child-companies or remote centres of software development. Kharkov is the most attractive region for the offshore and outsourcing activity in Ukraine. In order to hire the best specialists and establish stable company you must hurry while others didn't do this earlier!

REFERENCES

- [1] U.S. Companies Benefit from Outsourcing Experiences, Plan to Expand Efforts, Capgemini Study Shows; As Companies Accelerate Outsourcing Plans, Executives Demand More Options, <http://www.silicontaiga.org/home.asp?artId=4684>
- [2] Andy McCue, UK firms to drive offshore outsourcing boom, <http://www.silicontaiga.org/home.asp?artId=4622>
- [3] Terdiman, R. and Berg, T. (2001) Offshore Application Outsourcing. Gartner Group, Inc.. 24 September 2001.
- [4] Monthly Economic Monitor Ukraine, http://www.ier.kiev.ua/English/memu_eng.cgi
- [5] Ukrainian IT-export market review 2004, <http://www.techinvest.com.ua/main.php?lang=en&page=24>
- [6] Population of Ukrainian cities, <http://www.ukrindustrial.com/guide/population/index.php>
- [7] Ukrainian search engine, <http://meta.ua/>
- [8] Golden Pages, <http://goldenpages.ua>
- [9] The department of public relations, <http://mvsinfo.gov.ua/>
- [10] Gartner, <http://www.gartner.com/>
- [11] BrainBench. Tests online, <http://www.brainbench.com/>
- [12] Official information about Ukrainian economics, <http://ukrembassy.kepter.kz/text/ukr%2005.htm>
- [13] Salary of IT-specialists in Ukraine, <http://developers.org.ua/salary-db/data/salary-by-year/2006>