DEVELOPMENT OF UKRAINIAN IT ENTERPRISES IN THE CONTEXT OF MODERN TRENDS OF THE WORLD MARKET OF INFORMATION SERVICES

I.Pavlenko
Doctor of Science (Econ.),
Professor of Management Department
SHEI "Kyiv National University of Technology and Design"
Ch.Chyzhov
Phd Seeker of Business Economics Department,
SHEI "Kyiv National Economic University
named after Vadym Hetman"

Today, a priori is the assertion that the economic growth of enterprises of all types of economic activity is to a large extent determined by the use of information technology. This quite naturally creates the preconditions for the development of IT enterprises in the whole world as well as in Ukraine.

The most dynamic segment of the global IT market in recent years is the software market (software), the annual growth of which exceeded 6%. More than half of the total volume of the segment is formed by different categories of applications, the rest falls on the system software and development tools. The highest rates of development are demonstrated by the category of applications for organizing collaboration, in particular, solutions for intercompany social networks and file sharing, the volume of which increases annually by more than 20%. Also, the category of decisions to manage databases and analytics with an annual growth of more than 8% is developing dynamically. Invariably, high demand persists for managing enterprise resources and customer relationships, as well as security solutions. According to forecasts of analysts, the aggregate network of network equipment, servers and external data storage systems (DSS) will show an average annual growth rate of 19.6% over the next five years.

According to Gartner, in 2016, IT spending globally was $ 3.375 trillion, 0.6% less than a year earlier, while data for 2017 show an increase of 2.7% (to $ 3.464 trillion) According to the predicted findings of Gartner specialists, in 2017, global IT sales will grow by 2.9% compared to 2016 and

will reach $ 3.5 trillion. The growth of the market will occur, first of all, at the expense of software and IT services [1].

Geographic concentration of the market allows noting that the USA share accounts for more than half of the supply of information technology in the world, the headquarters of leading IT companies are located in this country (Table 1). At the same time, companies from India and China are starting to play an increasingly important role in the global market. For example, the Indian company Tata Consultancy Services, an IT service provider, exceeds market capitalization by Dell and EMC. And Chinese Internet giants — Baidu, Tencent Holdings and NetEase.com — are among the leaders in the IT industry at a rate of growth in income and profitability.

Table 1

Ten largest public IT companies in the world in 2016, $ billion

Company	Country	Volume of sales	Profit	Active assets	Market-value
Microsoft	USA	85.3	16.8	224.6	507.5
Oracle	США	37.4	8.9	125.4	182.2
SAP	Germany	24.4	4	46.7	119.7
VMware	USA	7.1	1.2	16.6	37.8
Adobe Systems	USA	6.1	1.3	13	64.4
Symantec	USA	3.8	2	16.8	19.1
Salesforce.com	USA	8.4	0.18	17.6	59.7
HCL Technologies	India	6.3	1.1 B	6.4	18.7
Fiserv	USA	5.5	0.930	9.7	24.9
Intuit	USA	4.9	0.793	4.4	30.3

Source: [2]

The United States is not only the main supplier of information technology to the world market, but also their largest consumer, accounting for about a third of the total turnover of the entire market. In Western Europe, against the background of the economic recession, the slowdown in IT spending growth is expected to reach 1.7% per year (in the region as a whole). In recent years, the technology sector is among the world leaders in

terms of the number of initial placements on the stock exchange. The reasons for entering an IPO company range from diversification to acquisition of assets and attraction of funds for development to increase the company's flexibility and its level of recognition and attractiveness.

The growth of IT enterprises and the increasing scale of their activities have complicated their operation by their own forces, which provoked the development of the practice of transferring part of the functions of maintaining its own information infrastructure to external contractors — outsourcing. According to analyst data from International Data Corporation (IDC), three of the leaders of IT outsourcing service providers are IBM, CGI and Cognizant.

It is also worth noting that the IT sector is characterized by a high level of average wages. In the United States last year, the average wage of a software developer with a work experience of 3 to 5 years reached a record high and approached $ 100 thousand a year. However, after paying taxes, housing and food costs, the «net» annual programmer's income of this level is about $ 70,000. Analyzing the incomes of programmers in the USA, it should be noted that to date, they rank first in the salary level of IT specialists [3]. In the EU, despite the significant development of information technology, the income level of IT professionals is about $ 55 thousand, although in recent years, wage growth in the IT sector has become more dynamic than in the United States. Over the past year, salaries of software developers have increased by almost 10% [3]. According to the portal kv.by the first place among the countries of Europe is Germany, with an average annual salary of 65 thousand dollars, the second place is Switzerland — 53 thousand dollars, the third — Lithuania, with an annual salary of 44 thousand dollars.

A significant proportion of world production, including in the field of information technology, is concentrated in China, but the salary of programmers in this country is very much lagging behind developed countries and is on average up to $ 18 thousand a year. Another country that has become the outsourcing center (according to IDC experts, almost every fourth (23%) of the largest outsourcing of IT related functions was attributed to an Indian company) — India. About 40% of vacancies are located in this country. The reason for this is the low cost of services for programmers with an annual income of about $ 12,000. In Japan, despite the status of a highly developed

country, and above all in the IT field, the average salary of a programmer is just under $ 40,000, which is one of the reasons for the migration of Japanese programmers to other countries, in particular, in the USA.

Objective prerequisites for growth are also characteristic for Ukrainian IT companies. The main development of the industry in Ukraine began in the 2000s (Pic. 1). It should be noted that in 2003, the seven Ukrainian market leaders — ELEKS, Miratech, Softline, SoftServe, Telesens, Tessart and UkrSoft, as well as the vast majority of other IT companies, belonged to Ukrainians. With only $ 100 million in IT exports, Ukraine did not play a significant role in the world market, which at that time amounted to about $ 500 billion. During this period only six IT companies had over 100 employees, and only about 8000-10000 IT specialists were employed throughout the market. However, at that time, the list of major Ukrainian companies was highly reputable: Boeing, Citibank, DaimlerChrysler Aerospace, Delta Airlines, DHL, Disney, Ford, General Electrics, ING Bank, Intel, Microsoft, Motorola, NASA, New York Stock Exchange, Paramount Pictures, Scala and others. The European Union was represented by Alcatel, Deloitte & Touche, Deutsche Telekom, Fiat Avia, France Telecom, Nokia, Philips, Siemens and others.

The above representative sample of clients from Ukrainian IT companies has allowed individual experts to assert that the Ukrainian IT industry has begun to generate credibility. To strengthen this trust and increase its attractiveness, many Ukrainian companies have started to shape their business processes in accordance with ISO and industry standards, such as Software CMMI. With the growth of the industry and increased competition, another indicator of the reliability of the domestic IT service provider was a financial audit with the involvement of a reputable international auditor.

The period of large-scale attraction of foreign investments to Ukraine provoked a rapid growth of domestic IT-business. A typical scheme was the purchase by a well-known international software developer of one or several small or medium-sized Ukrainian companies, which subsequently created major development centers in Ukraine. The interest of foreign investors in Ukrainian programmers is due to the high level of their qualification, which is supported by the following indicators. Thus, the World Economic Forum Global Competitiveness Report estimated the coverage of higher education in Ukraine by 79.4% (7th among 183 countries). The

practice of hiring and dismissal was estimated at 4.8 points, which made Ukraine the 17th place in the world and demonstrated the potential for the recruitment of skilled specialists. With 2007 investment, the volume of Ukrainian exports of ICT services grew to $ 504 million according to the World Bank [4].

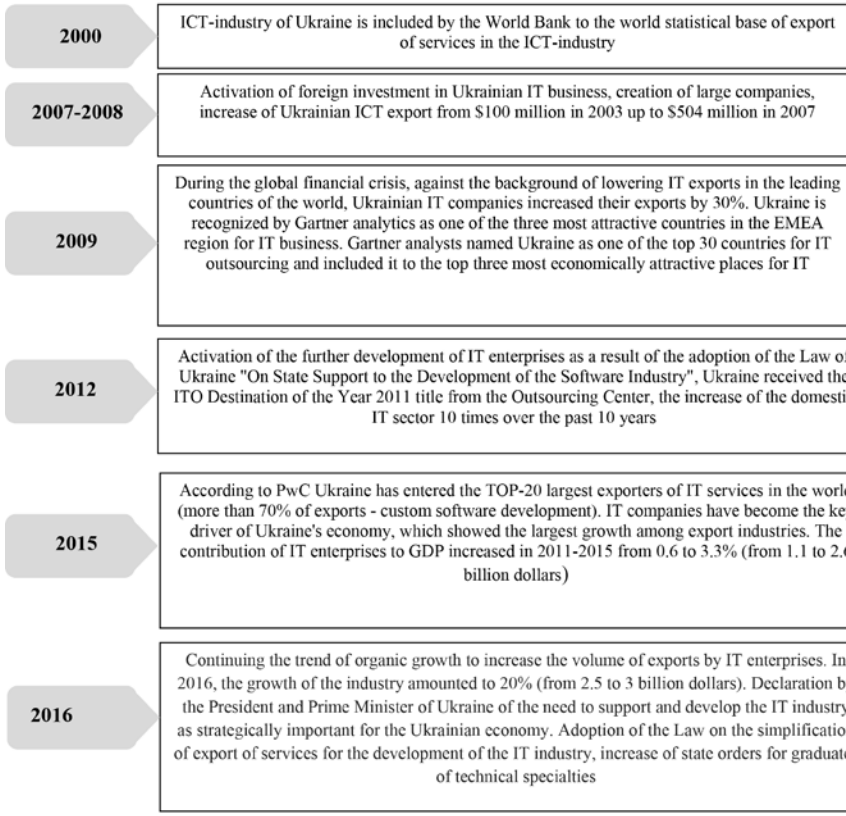

Fig. 1. Chronology of development of Ukrainian IT-enterprises
** Source: formed by the author*

In 2008 — 2009, during the global financial crisis, the Ukrainian IT market once again attracted the attention of international researchers. Gartner analysts called Ukraine one of the top 30 countries for IT outsourc-

ing and included in the top three most economically attractive places for IT [4]. Against the backdrop of falling exports of IT services in the leading countries of the world (by 16% in Italy, by 11% in the UK, by 7% in India, by 5% in Japan and Germany), Ukraine has demonstrated by the end of 2009 30% growth in ICT exports. After 12 months of ICT research in different countries, Gartner experts called it one of the three most economically attractive countries in the EMEA region [5,6].

In 2011, Ukraine had another significant recovery in the industry, one of the reasons for which was the successful lobbying by the IT Association of Ukraine of a bill to support IT companies adopted as the law of Ukraine «On State Support to the Development of the Software Industry» in 2012. In the same year, Ukraine received the ITO Destination of the Year 2011 title from the Outsourcing Center [5].

As of now, the IT sector of Ukraine demonstrates a steady growth of 25%. Over the past 10 years it has grown 10 times. According to official statistics of the State Statistics Committee in 2014, exports of computer, information and telecommunication services amounted to $ 1.6 billion, and imports — only $ 0.5 billion. In 2015, according to experts, the share of exports is $ 2.5 billion a year. IT ranks third after the agro-sector and metallurgy, and competes with the export of chemical materials (Fig. 2). In 2016, the volume of IT service exports reached a maximum of $ 3.2 billion.

A specific feature of IT business in Ukraine is that most IT companies are outsourcing companies. The attractiveness of Ukraine for the work of outsourcing companies is also confirmed by statistics, one indicator of which is a steady growth, an average of 15%, the number of employees in the top five largest companies. The trend is also confirmed by international research. So, according to the Global Services Location Index, which ranked countries by the attractiveness of outsourcing business, Ukraine rose immediately to 17 positions and ranked 24th. The International Association of Outsourcing Professionals IAOP has published a rating of the best outsourcing companies, The 2015 Global Outsourcing 100, which brings together 75 market leaders and 25 «upcoming stars.» The list included 7 companies operating in Ukraine, of which 4 companies were among the top five. TEAM International Services, Intetics, Miratech and Softeng ranked 2, 3, 4 and 5 respectively in the category of «upcoming stars». Luxoft, SoftServe and EPAM (18, 26 and 51 palces) [7] were noted in the category Leader.

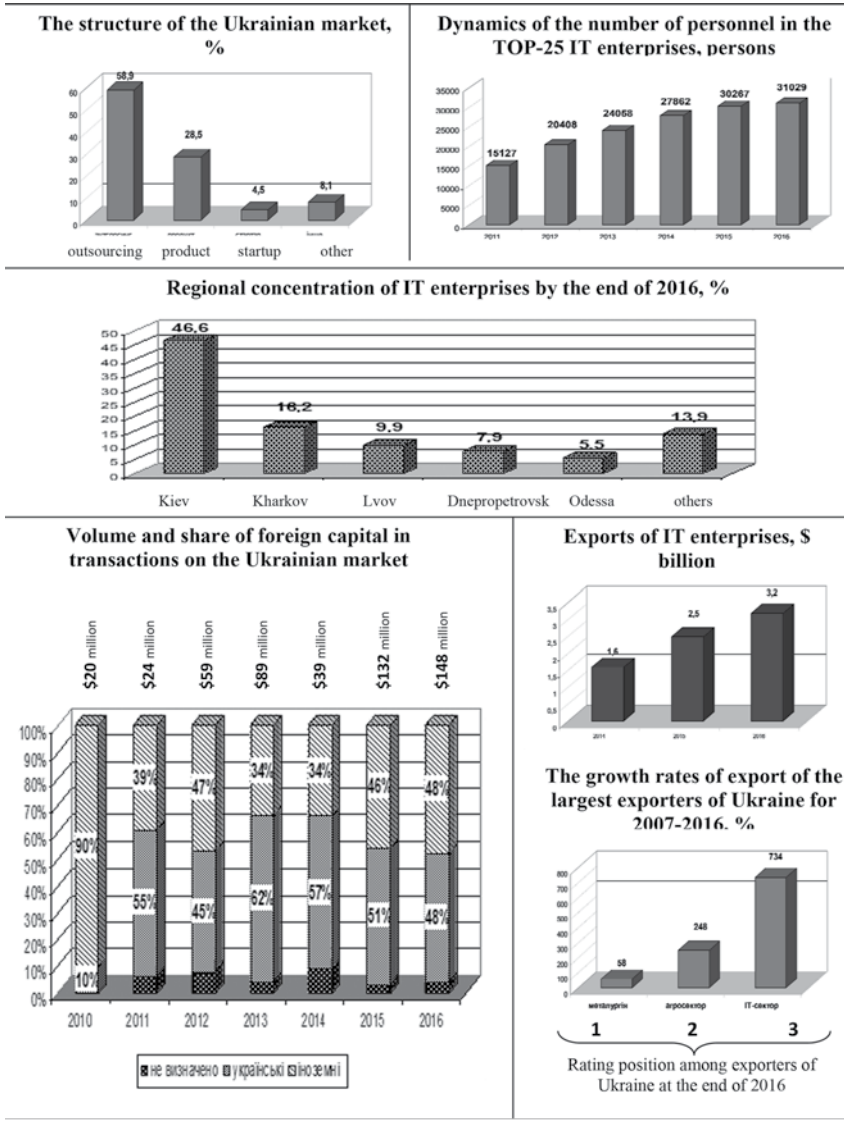

Fig. 2. Indicators that characterize Ukrainian activities of IT enterprises
** Source: formed by the author*

According to the results of 2014 only EPAM Systems fell out of top hundred, but in 2015 experts interviewed by IAOP returned the company back to the rating. EPAM is the leader of the outsourcing market in Ukraine. According to a recent study by the web portal Dou.ua, the company employs 4400 people, more than 800 of whom have become EPAM employees for the last year. This is the most dynamic player in Ukrainian market. During 2015 the Company's stock value has almost doubled. According to Forbes EPAM is the only IT company in Ukraine that included to the list of the largest companies in the country. Large software foreign companies like Luxoft and Ciklum also have development centers in Ukraine. The first one has some offices in three cities in the country and more than 3,700 employees. The second one has about 2300 employees in six Ukrainian cities.

After a short-term decline in 2014, Ukrainian IT sector showed record growth in 2015. The market exceeded the activity indicators of trading activity for the previous years. The investment market of the country has reached 132 million USD in 2015, which 240% growth is compared with the previous year, when the decline of the market was 55% comparing with 2013 (according to open agreements). Taking into account undisclosed deals, the market is estimated $ 172 million. Also, despite pessimistic forecasts, foreign investors have not lost interest in the Ukrainian hi-tech sector, whose share of investments in 2015 was 40% [7, 8].

2016 is characterized by the continued trend of organic growth for increase the volume of exports by IT enterprises. In 2016 the growth of the industry amounted to 20% (from 2.5 to 3 billion dollars). The President and Prime Minister of Ukraine has declared the necessity support and develop IT industry as strategically important for the Ukrainian economy. Adoption of the Law on simplifying the export of services for the development of the IT industry, increasing the state order for graduates of technical specialties.

The vast majority of IT companies in Ukraine operate under standard offshore schemes where the customer is a direct counterparty of a foreign offshore company, while a Ukrainian contractor is an executor of works commissioned by an offshore company. A typical IT development company, that provides services for foreign customers, represents the following structure: a Company is registered in a country where the Management team is located and all taxes are paid in the country of registration. Foreign customers

make payments to the company's account, and all taxes are paid from these funds. Local workers are being recruited to work for this company.

However, Ukrainian IT companies prefer a scheme for company profits optimization, according to which an offshore company is registered, which will become a mediator between buyers and a local resident company. Foreign customers make payments to an offshore company account. An agreement on the execution of IT services is concluded between offshore and resident companies. The Offshore transfers to the account of the local company exactly as much money as it would be enough for its expenses, and all other profits remain in the account of the offshore. As a consequence, for the Ukrainian IT company tax optimization is underway. And, besides that, settlements with clients are simplified, as offshore activities do not come under currency control. It is enough for an overseas client to provide an invoice for payment, it is not necessary to sign a separate agreement and acts of performed work, as required by Ukrainian legislation when conducting foreign trade activities by Ukrainian resident companies.

However, not all investors are ready to work or invest in a classic offshore company. In particular, Google does not pay offshore accounts with either GooglePlay or GoogleAdSense, and, according to their policies, a bank account must be opened in the country of registration of the company. Apple and Microsoft are loyal to this matter. A better option for long-term and business-focused companies is to open a company in a respectable, simplified tax system where the company operates in reliable and stable jurisdictions. There is the protection of assets and property. Investors and banks are willing to work with such companies. These jurisdictions include partner companies in England and Scotland (LLP), Asian countries such as Hong Kong and Singapore, the United States, the State of Delever. From minuses — in order to avoid taxation, you cannot operate in the territory of the country of registration; high cost for company registration, compared to ordinary offshore; open owners register; reporting.

By various estimates, the industry employs up to 100,000 IT professionals, of which 25% of all programmers work in TOP 25 companies. Ukrainian IT business is concentrated in five cities: Kyiv, Kharkiv, Lviv, Dnipropetrovsk, and Odessa. At the same time, almost half of the IT market is concentrated in the capital. In the occupied territories of the Donbas and the Crimea, the information technology market was relatively weak, so

their losses were largely unaffected by the IT industry as a whole. In addition, most of the companies left the occupied territory.

Experts and analysts predict a slow growth of the Ukrainian IT market in the coming years. To date, market players have adapted to a difficult period and began to create, in addition to the regular budget, a crisis IT budget. Of the positive trends, it is worth highlighting the expected transition of government agencies to electronic document circulation and electronic services, the development of the concept of «Internet of Things» (when devices, sensors, industrial and household equipment connect to the Internet), the introduction of cryptography, reorientation of companies to commercial datacenters (data centers, centers data processing). The category of secure data storage and cyber security will be steadily used all in all.

In addition, the signing of the Association Agreement with the EU is an important global factor affecting the development of IT in Ukraine. Within the framework of this agreement it is necessary to ensure implementation of a number of steps concerning the IT sphere, in particular: implementation of the Convention on cybercrime; recognition of European digital signatures; definition of computer services based on UNSCR84; drafting of a bill aimed at adaptation to the European law in the field of IP (Internet Protocol); improvement of labor legislation; involvement of Ukraine in the program COSME (Competitiveness of enterprises and SMEs); introduction of e-government and individual elements (e-court, e-procurement, etc.); legislative stimulation of research centers and new IT companies; reduction of the number of regulatory and control bodies, elimination of duplication of their functions; development of cooperation in the field of innovation activity between the state, business entities, educational institutions and research institutes; Definition at the legislative level of the concepts of "business center", "business incubator", " clustering", "subconstration"; encouragement of business entities to social responsibility of business; reforming tax policy, etc.

Among the reasons that slow down the development of companies in the short term, employers focus mainly on political instability. The armed conflict in the Donbass has created additional factors of the risk of IT companies operating in the Ukrainian market. The war has become a major factor in hindering, first and foremost, the development of IT outsourcing. For outsourcing clients, the continuity of the development process is import-

ant. The result of investors' fears of a conflict outside the Donbass caused a significant slowdown in industry growth during the first two years of the conflict — from 20-25% to 10-15% annually. In order to diversify the risks of economic and geographical location, companies began actively to relocate offices. The main areas were Poland, Romania and the Czech Republic.

Additional risks of IT company activity result in lack of effective support from the state and effective legislative framework, which is expressed in the level of stability of the country's economic and legal environment. The adoption by the Verkhovna Rada of Ukraine on January 22, 2012, of the Law on support of the IT industry, according to experts, marked the beginning of a stage of positive change. It is worth noting that during the last time some steps have been taken, at least declarative, which defined the framework for interaction between the state and the IT business in Ukraine. In particular, according to a new government project, which envisages creation of 100 thousand of working places in this area, by 2020, Ukraine intends to become leaders in the field of IT outsourcing. The said project stipulates that for domestic IT-specialists, suitable working conditions will be created to prevent the outflow of highly skilled personnel. In addition, the bill provides for a revision of the tax legislative framework to ensure Ukraine's competitiveness on the international market. The project was sponsored by authors, whose expert group includes both government representatives and the heads of leading IT companies operating in Ukraine, entrusted the export of IT services and the development of an e-government model.

According to experts, the IT outsourcing market is quite rigid and competitive. It is also characterized by high professionalism in the provision of services and dynamic development. According to the authors of the project, Ukraine, which is now one of the leaders in IT in the Central and Eastern Europe, may in the years to come, be one of the leading IT service providers in the global IT market, in real competition. China and India, which according to various estimates totally control about 90% of the global outsourcing market.

Serious threats to domestic IT companies lead to illegal actions by law enforcement agencies and legal risks. Illegal actions lead to companies being stopped by illegally removing servers and other equipment, rather than copying information in order to obtain a bribe [9]. In addition, certain legal

tyranny, which may be encountered by foreign investors in Ukraine in personal order, may negatively affect the overall relationship of counterparties.

The insecurity of copyright and property rights also causes the risks of product sales (for the grocery company). Objects of copyright and related rights have recently been broadly disseminated through the Internet. The legislation of Ukraine on the protection of such objects does not contain the necessary legal instruments for their protection in the network. Draft amendments to the various laws proposed today focus mainly on regulation of the sphere, and not on solving the problem. According to data published in early February 2015 in the special annual report of the International Intellectual Property Alliance (IIPA), also known as the «301 list», Ukraine ranked first in the ranking of infringing states of intellectual property rights. The situation with the protection of intellectual property rights holds back the growth of the Ukrainian economy in general and the IT market in particular. At this level, Ukraine ranked last in the world rankings.

Currently there is a significant staffing crisis in the IT industry. The high level of labor market mobility in the IT sector stimulates the drain of the best personnel. Political and economic instability in the country contributes to the desire of specialists to go abroad. According to the latest survey among IT specialists, almost 70% of them are willing to leave the country. Despite the effort of IT companies in educational initiatives, the overall level of qualification in IT fields is decreasing. On the IT labor market there is an imbalance of demand and supply of specialists. The main problem for Ukrainian IT companies today is the deficit of middle/senior engineers. This imbalance in the IT market is due to negative trends in the Ukrainian educational sector (at all levels), which threaten the development of the IT industry. At the same time, availability of qualified specialists is an essential competitive advantage of Ukrainian IT companies in the global market. By deterioration the quality of basic and technical education in Ukraine, this advantage may be lost.

Impact analysis of global IT trends on the development of the Ukrainian IT sector, the main conditions for the functioning of the national IT market, and investigation of the main threats to the IT companies, have allowed to develop framework which contributes to the algorithm of the questionnaire. Based on the materials of our surveys conducted by senior and middle managers of 12 IT companies in Kyiv, conducted during

2015-2017, we outlined and summarized the main parameters of the risks we have allocated for IT companies in Ukraine: «personnel», «processes», «structure «, «client» and «growth «.

For the group «personnel» it was developed number of parameters, which insure sustainable development of the IT companies as well as continuous improvement. Those parameters are: the level of dependence on particular employee, the availability of adequate personnel pool in the labor market; difficulties in recruiting new personnel; "hunting" of personnel by a client / competitor; the level of maturity of corporate culture; loyalty of staff; staff turnover. Among the main risks of the «client» group are defined: the risk of loss of the client; difficulty finding clients; client satisfaction with product/service quality; client geography; the risk of a crisis in the client's industry; client dissatisfaction with staff turnover. The group of risks «structure» includes: the level of diversification of risks of economic and geographical location; the level of stability of the economic and legal environment of the country-location; conflict among shareholders/owners; risks associated with the product launch (for the product IT companies). The group «growth» includes: the ratio of growth rates of revenue and the growth rate of the market; the ratio of profitability of company comparing to the average market profitability; the ratio of growth rates of fundamental and market capitalization.

With a company size of 1 to 10 employees, the "personnel" score is critical, because for a small number of staff, there is a significant dependence on individual employees who perform the core functions of the organization (one men dependency). Potential problems can be related to the loss of key expertise, the deterioration of relationship with the client, a significant increase of load for other team members. Potential solutions to this problem may be the systematic work of maintaining knowledge within the company, through regular exchange of information with colleagues, recording video/audio lectures, webinars, high-quality documentation of architectural decisions and processes. As a means of preventing the problem, the formation of a positive climate in the organization, the regular conduct of team-building events and trainings may be a good solution.

With a company size of 11 to 50 employees, the impact of staff related risks are still high. Companies have the same problems as the smaller ones, but the distribution of bargaining powers is more optimal. The solution

proposed to the managers of the company is similar to the previous option, but with a lower level of mood monitoring for key employees and without their involvement in the distribution of profits. For companies with the number of employees from 11 to 300 people, the level of risk of the group "personnel" is defined as not critical.

The "structure" indicator has a critical level of vulnerability in case of one office location, and an average in the two office locations. The presence in only one region, causes the company's significant dependence on changes in national legislation. For example, changes in the legislation regulating the activities of private entrepreneurs (currently 90% of Ukrainian IT specialists are registered in this form of ownership) will increase the tax burden and, as a result, reduce the margin of business. Consider opening an additional office or looking for a partner company is a potential solution. It will help minimize the location risks associated in one region dependency, providing additional opportunities for relocation of personnel in the event of any force majeure. At the beginning, the easiest way of location diversification is to go to regions with the most similar mentality and labor market conditions. For IT product companies, it is most logical to be closer to the market for which the product is created, or close to investors.

Woth the two offices, the level of risk is reduced, but in the case where both location offices are in one country the risk are similar to the previous option. In this case, the recommendations remain the same as for a company with one office. When an office is located in only one region, the company may face imbalances in demand and supply in the labor market. One of the solutions to a problem associated with a shortage of key employees may be the opening of an office in a location where such resources are available. For outsourcing and outstaffing businesses, clients are more likely to work not only with locations that have a good cost/quality ratio, but also with those located in nearshore time zones, and have a similar mentality. Clients from North America are actively outsourcing to Latin America, clients from Asia — to India or China, clients from Europe — to Central and Eastern Europe.

In case of shortage of IT specialists, companies should try to create ready-made solutions to gradually shift from the model of sales working hours (time and materials business model) to the solution business model (sales of completed business solutions which aimed to solve client's needs). It will significantly increase the profitability of the business and accelerate

growth. Companies dominated by senior staff are faced with a significant shortage of staff, as well as competition for these staff with other companies. This leads to a slowdown in growth, an increase in overhead costs and an increased risk of loss of key people. To make the business more stable and predictable companies should invest in personnel development. It is worthwhile conducting a large number of trainings in order to intensively raise seniority level of staff.

When team structure is dominated by junior specialists, there is a significant risk that the product/service will not meet high standards of quality which could cause damadge to the relationship with the client. Unskilled personnel inevitably leads to increased overhead for management, delays in implementation timelines and, as a result, additional costs.

Ukraine is ranked 7th through the level of country risks systematically assessed by the Organization for Economic Cooperation and Development. It is characterized by high corruption, inefficient judicial system, high cost of financial resources, low level of citizens' security, etc. This situation leads to the outflow of skilled personnel and the low attractiveness of location by foreign clients. It is necessary to work on the business deversification, the opening of new locations, the search for new international partners and the conduct of business in the most secure locations. It is also necessary to conduct systematic work with clients aimed at increasing loyalty to the Ukrainian location and providing high-quality information on potential problems and a plan of action to minimize its consequences.

Working with offshore jurisdictions often has a negative reputational effect and creates certain instability risks, as developed economies systematically work on their legislation to reduce the risk of «gray operations» and minimize taxes. Large international clients see risks in dealing with offshore jurisdictions. Tax optimization should not be the main factor of marginality. Sometimes it's worth decrease marginality in order to attract clients who are not ready to work with offshore jurisdictions.

In the case of several shareholders, there is always the risk of a conflict over strategic issues. These issues may include strategic positioning, business model definition, localization strategy, etcConflicts between shareholders may also emerge around financial issues, in particular regarding the distribution of profits. . It is desirable to write down in detail all the nuances in partnership contact and dicuss all possible scenarios in advance.

Summarizing the above, we can conclude that in the medium term, the global IT market will continue to grow. The IT market is global in the full sense of the concept. The high degree of mobility is inherent both for capital and technology, and for the workforce. In addition, the level of technology development is an indicator of the level of development of national economies. Such trends will require countries to increase investment, both internal and external, in the sector, harmonization of regulatory legislation in this area, support and development of productive capacity. Ukrainian IT companies that have accumulated significant intellectual potential and experience in this segment have all the prerequisites for further growth, strengthening their positions in the market and increasing the level of their attractiveness for both existing and potential clients. However, it is necessary to focus attention on the fact that the further development of domestic IT companies is to a large extent limited by factors of the environment (political instability, imperfection of the legislative basis, unlawful actions of power bodies, etc.). Minimization of both external and internal factors of influence on the functioning of IT companies highlights the need to focus the attention of top management to four key projections: personnel, clients, growth, structure.

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