

UKRAINIAN IT-INDUSTRY CHARACTERISTICS

The main trends and forecasts of Ukrainian IT-market are described in the article. The main attention was paid to ERP-systems. There are suggested strategies in accessing the Ukrainian IT market with a view to minimize potential risks and delays.

Розглянуто тенденції розвитку українського ІТ-ринку. Головна увага приділена дослідженню інформаційних систем управління ресурсами підприємства. Виявлено основні характеристики українського ІТ-ринку та запропоновані стратегії виходу на вищевказані ринки з мінімальними ризиками.

Рассмотрены тенденции развития украинского ИТ-рынка. Главное внимание уделено исследованию информационных систем управления ресурсами предприятия. Выявлены основные характеристики украинского ИТ-рынка и предложены стратегии выхода на вышеуказанные рынки с минимальными рисками.

Keywords: ERP, IT-market, Ukrainian IT sphere, accessing IT-market, investment in IT.

Transformational conversion of the Ukrainian enterprises caused by the market economy reforms and globalization processes is of paramount importance due to the joining of Ukraine the World Trade Organization (WTO). A great number of the Ukrainian enterprises has been owned by transnational companies or have drawn actively foreign capital investments. It stipulates a certain change in enterprise management approaches which are alike those of Western managers'. It concerns, largely, the implementation and use of modern information systems and technologies.

I this part of the paper we should write about the scientist investigating the main problems of Ukrainian IT-market. But in real these problems are explored only by ERP-vendors and consulting companies such as: SAP, Microsoft, GAAP, IDC, CONIM etc.

The answer as for expediency or non-expediency of enterprise automation has been known for a long time. However the problems of the choice of the kind of informational system, the way of its designing, programming and implementation, the degree of automation of business processes and information system integration are still open for the discussion. So let us investigate this question deeper.

Actually all national enterprises have started automation with the implementation of accounting informational systems, using typical the so-called "box" solutions which were very useful at the initial stage partially meeting the demands of management. Thus, it has been successfully completed the computerization of the financial accounting including the automated formation of bookkeeping and calculation of taxes. More perspective seems to be with managerial accounting which under the conditions of automated informational systems is based on practically unlimited analysis and the possibility of operative formation of accounting which, in its turn, is calculated on the basis of absolute

and reliable bookkeeping information [1].

But the problems of automation of supplies, manufacture, distribution, logistics, personnel management, basically the problems constituting the core of enterprise activities and profit are still remain open. Sometimes certain spheres are automated. Such an approach allows some advantages for a certain employee who enables to reduce the number of mechanical errors, the number of routine operations, accelerate their performance. If it is possible, the attempts are made to export/import the data among different informational systems which are to automate different tasks by different technologies. For example, there are often the situations when the department of planning and financing imports bookkeeping of accounting systems in a tabular redactor Microsoft Excel and employing its standard potentialities conducts a certain analysis and calculates the mass of these or those indices. The use of the local approach to the automation problem does not permit to consider comprehensively all the processes that take place at an enterprise and to analyse them from the point of view of systemic analysis [2].

For Ukraine nowadays, the tasks of the economic growth, increasing of production quality and competitiveness, becoming a member of the world market are most topical. The solution of these tasks without the increase of the quality management and automation of all spheres of economy (state bodies of management, different enterprises and small businesses) is impossible.

The major problem is non-stability of running business in Ukraine which often results in the absence of real long term strategic plans of the enterprise development. This is a real problem for the use of informational technologies. The fact is that while the informational technology is in use only to solve local tasks and improve some business processes, it does not require the strategic approaches and fits completely the common pattern of national enterprise management when its activities are planned maximum for a year period. When an enterprise wants to implement the ERP system in full scale and not for solving local tasks, then may arise some problems. And the implementation of such a system is a constituent of the business development strategy. If this factor is not taken into consideration by the company the negative consequences are evident. The only way out for this is to agree the strategic goal of the company with the purposes of implementation of the informational system. In any other case the purposes ERP system implementation will have a declarative character, thus the project is doomed to be a failure [3].

The IT market of Ukraine has been characterized by the consulted Ukrainian experts as the one market sector in Ukraine that has been developing with highest capacities and speed compared to international standards over the last years. Within the IT sector the telecommunication market has been described to cover the biggest segment with 56% of the annual turnover followed by the hardware

market with 25%. The third position is being taken by services with 14% including software developers and outsourcing. A considerable part of the market with 5% of the annual turnover is generated by game developing enterprises in Ukraine [2].

Taking into account the high volatility of the market development, the market's structure has been forecasted by the consulted Ukrainian experts to develop into the following proportions up to year 2010: - telecommunications – 59%; - hardware – 16%; - software (including outsourcing) – 9%; and - IT consulting – 16%.

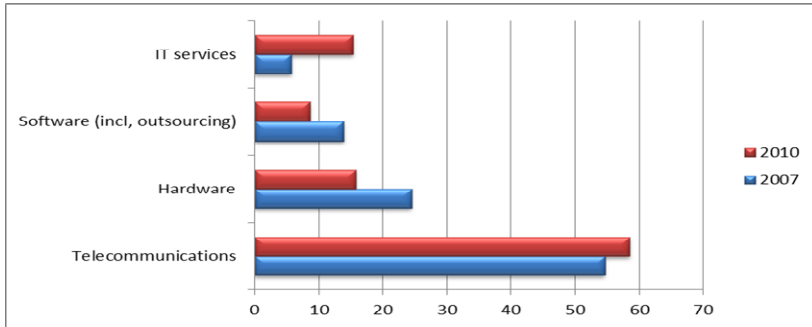


Fig. 1. Development in % market shares of total turnover within Ukrainian IT-sectors 2007 to 2010 [4]

The development of export of IT services within 2000 and 2010 is displayed in the chart below.

IT-sphere grows very dynamically in Ukraine. The figure shows part of IT to GDP over last 6 years. Based on the calculations that projected growth in domestic IT industry (35-40% per year) by 2015 we will have 8% of IT to GDP.

The speed of growth of IT-market outperforms GDP growth. This means that the tendency of saturation of the global market, are not typical for Ukraine.

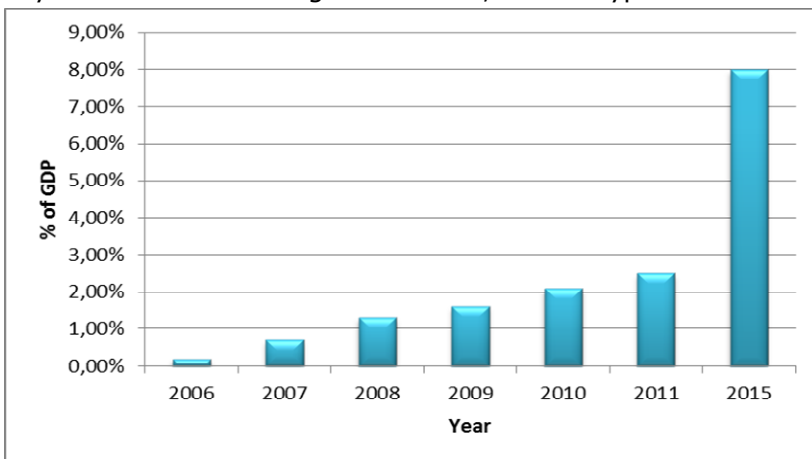


Fig. 2. IT-sphere in Ukraine [4]

The difference between the issues solved by ERP in the West and in our

country, the same as between the goals of a crowded passenger transport: those who are inside want to get a seat as comfortable as possible, while those outside - to squeeze the least at the first stair. From the beginning of 2008 to the end of 2010 Ukrainian IT-market has experienced one of the most difficult periods. Vendors and consulting companies gave an unprecedented discount, offered attractive options of purchase and payment in installments, but in most cases it was extremely difficult to find new customers for implementing ERP-systems. As a result, the sector in terms of money last year decreased by 60-80%. According to experts, now it is time to recovery industry. However, it is not the same as before. Segment of the enterprise management system has undergone many changes in quality.

The market of ERP-systems is the part of the information and communication industry, which, in turn, brings together the two main sectors: Communications and Information Technology.

Western ERP-systems (automation of enterprise management) appeared in the Ukrainian market in the early '90s. The first office was opened by the company SAP AG. After it other Western ERP-developers and consulting companies began to work in Ukraine and by the end of the 90 in the Ukrainian market there were present nearly all the leading Western ERP-vendors. After several years of experiments and failures associated with the development of "Ukrainian (post USSR) conditions" (weak regulation and standardization of business processes, a very-very specific kind of accounting and frequent changes in laws) the companies began successful implementation of Western systems, constituting a serious competition to the domestic "Parus" and "Galaxy" [5].

In the early 2000s, the domestic IT market, contrary to global trends, grew at an accelerated rate. In this period ERP-systems were one of the most attractive segments of IT-market. The market of corporate software in Ukraine is also influenced by general economic situation.

A considerable part of incomes within the ERP market is achieved by direct sales. At the same time a significant growth of income from license sales, involved systems and IT consulting support has been noticed by the Ukrainian experts. The license sales contributed significantly to the dynamic growth of 2010 and the increase of incomes from technical support of constantly growing clients base was especially pointed out as noticeable for those companies that have been long established within the Ukrainian market, and were able to form a substantial number of customers.

According to the consulted experts of the Ukrainian IT market, the high demand originating from Ukrainian companies for ERP systems will be continued all through 2011-2012 and even beyond. It was stated that the important national economic growth in the majority of sectors combined with the estimated political stabilization

could stimulate the interest of foreign and native investors for long-term investments into production in Ukraine. It was highlighted that one important factor of increasing ERP system demand is the currently ongoing process of consolidation inside of several economic branches. Newly groups of companies and holdings need sufficient software and licenses in order to allow them to integrate different information systems into one management control system. According to estimations of the Ukrainian IT consulting enterprise IDC a high potential of growth have such ERP systems in industrial sectors within sales and distribution, banking sector and governmental and public administration. The speed of growth of these sectors will be higher than Ukrainian ERP market growth in general, which has been estimated to reach 26% per year until 2011 by IDC. The governmental and public administration sector has been considered to be the main customer of ERP systems in terms of license volume. Governmental institutions show a lot of interest to systems of corporate management. The realization of large IT projects in customs and rating authorities is expected within a short timeframe [6].

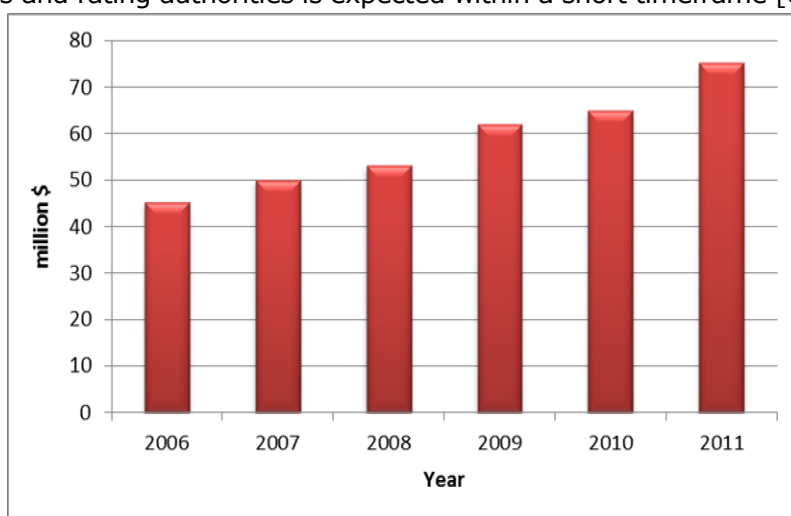


Fig. 3. Ukrainian market of ERP-systems [6]

The consulted Ukrainian experts predicted a rise of native enterprise management software with additional functionality (CRM function, supply-chain management, workflow-management etc). Similar to the ERP systems market the Ukrainian experts predict this development to come up in the very near future. Some Ukrainian companies are already focusing on this IT market segment such as "Parus" and "Galaktika". The Ukrainian experts highlighted the continuing change of demand from universal management systems towards very specialized industry solutions that take into account peculiarities of the economic fields and involve typical resolving applications of industry specific tasks.

The leaders of the Ukrainian ERP-market [6]

	2010, %	2009, %	Changes
SAP	50,5	50,1	0,4
1S	26	22,3	3,7
Oracle	8,2	9,6	-1,4
Microsoft Dynamics NAV	7,4	7,1	0,3
Galaxy	2,4	3,9	-1,5
Other	5,5	7	-1,5

As we see the leader is SAP. The sales exposure to a market of SAP ERP solution in the CIS in 2009 was 64%, in 2010 - less than 50%. There was increasing sales of: business intelligence solutions for the management of procurement and financial management of the company, as well as information management, personnel, etc.

The modules of implemented ERP-systems divided as follows [6]:

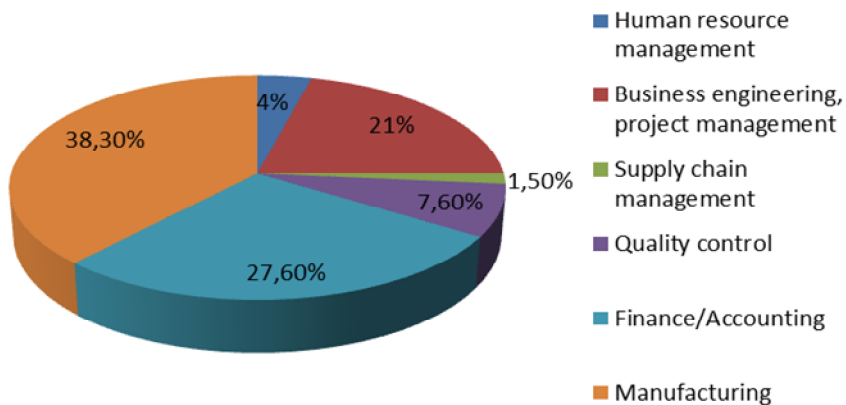


Fig. 4. The modules of implemented ERP-systems

Discuss the main trends and forecasts of the domestic ERP-market.

✓ According to research agency Gartner commissioned by SAP, the high demand from Ukrainian companies in the ERP-system will continue in 2011-2012, considerable growth in most sectors of the economy and political stability will stimulate the interest of both foreign and domestic investors to long-term investments in production.

✓ An important factor in the demand for ERP-systems is ongoing processes of consolidation within industries: the newly created group of companies and holdings need software that allows integrating disparate information systems into a single management tool.

✓ The rise of demand of ERP-systems is expected from companies preparing

for the placement of shares on Western stock markets and seeking to improve the investment attractiveness for investors through transparent business practices. According to experts, in 2011-2012 more than 20 Ukrainian companies will spend initial public offering (IPO) which provide an additional impetus to the development of ERP-market and increased demand for systems that support a Western accounting standards. For the same reasons of transparency the Ukrainian market branches and representative offices of foreign companies form demand for ERP-systems.

✓ According to IDC, as consumers of ERP-systems industries such as retail, banking and public sector have significant potential for growth. The growth rates of these segments will outpace the growth of much of Ukrainian ERP market as a whole. The main candidate for the role of "locomotive" of the market of ERP-systems is considered to be the public sector. Today, government agencies show increased interest in systems of corporate governance. It is worth noting. It is worth noting that among the new SAP customers in 2010 are: "Prominvestbank", "Naftogaz of Ukraine", "Credit Dnepr", "Farmak", "First Ukrainian investment bank".

✓ In the near future ERP-systems market is expected to increase the number of domestic management software company, which sold more Internet functionality (CRM-functions, supply chain management, etc.).

✓ When choosing a partner customers pay more attention for the presence in a consulting company the experience of the success of similar projects.

✓ Today customers are interested in primarily proven industry solutions used by similar businesses not only in the world, but also in Ukraine. Risks of introduction of such software are much lower than in the implementation of standard ERP-systems.

✓ With the increasing quantity of implemented ERP-systems we should see the increasing of the demand for maintenance such systems. Sales exposure for companies that provide services to support information systems should be expanded. But in reality we do not see it. For this reason, in many companies on the base IT department own professional teams are formed. These teams are able independently to deal not only with the support of information systems, but also with their adaptation to changing market conditions and business demands.

✓ One of the bottlenecks impeding the development of ERP-systems market in Ukraine remains a shortage of skilled workers: consultants, programmers, designers of business processes.

Let us suggest strategies in accessing the Ukrainian IT market with a view to minimize potential risks and delays.

The Ukrainian experts pointed out that opportunity for entering into the Ukrainian IT market for foreign investors have become more difficult because

domestic investors have started to utilize their competitive advantages and do realize intensive market research. The majority of the consulted Ukrainian experts listed the highest economic perspectives for investment for the following spheres of activity:

- ✓ Software Development;
- ✓ Software sales, distribution and locally administrated maintenance;
- ✓ Hardware Design and Assembly.

On the other hand the consulted experts highlighted the Program of intensification of investment processes into the Ukrainian IT market, which is carried out by the Ministry of Economic Affairs of Ukraine and does include the following activities:

- ✓ forming of government-entrepreneur delegations with the goal of carrying out conferences and presentations in the economic centers of potential customers of Ukrainian IT developments;
- ✓ support for Ukrainian private companies through governmental initiatives for participating in first-rate international exhibitions and summits
- ✓ support for Ukrainian private companies through governmental initiatives on applying to tender principles with public examination;
- ✓ planning and execution of international PR and business awareness programs to establish a Ukrainian branding as country with IT potential;
- ✓ editing of legislative acts of Ukraine with the goal of ensuring security for foreign and native investments into the IT industry;
- ✓ development of a system of additional administrative privileges for foreign representations (e.g. visa support, regional support initiatives at the level of local authorities, that will provide simplicity and quickness in registration of new branch enterprises, including 100%-foreign business).

Considering the fact that Ukrainian IT-professionals have qualifications similar to Russians, and that their salaries are 30-50% lower, it is not surprising that Russia holds the 4th place among the countries where Ukraine's key software development orders are originating due to low international recognition of Ukrainian IT industry and little on-site presence of software development companies. A plenty of individual and consolidated activities are expected in this field in the near future. Also, a significant raise of foreign investors' interest to Ukrainian IT companies and their products international commercialization is forecasted by the consulted experts. The Telecom sector (dedicated lines, mobile communication) is rapidly developing. The neighboring European Union countries and special cooperation status with EU are also deemed as favorable factors for Ukrainian IT-export industry growth. Some positive factors for developing of export IT market are listed below:

- ✓ professionalism and high level of qualification of specialists;

- ✓ strong research potential and investment attractive innovation technologies;
- ✓ relatively low salaries of qualified specialists of the sector;
- ✓ stable growth of Ukrainian economics and especially strong increase of export IT sector;
- ✓ growth of investment appeal of Ukraine in whole and IT sector particularly;
- ✓ neighborhood with EU and competitiveness of Ukrainian hi-tech culture. The consulted experts list as the most perspective centers for development of IT export capacities Kyiv, Kharkiv, Lviv, Vinnica, Odessa, Crimea, Zaporizhya and Dnipropetrovsk in terms of already available infrastructure and qualified staff.

Selected bibliography:

1. Максим Матяш: директор SAP Україна. Інтерв'ю [Electronic resource]. – Access mode: <http://itbusiness.com.ua/it-business-week/interview/31258--sap-.html>
2. Український ринок бізнес-приложень: прийшло время SMB [Electronic resource]. – Access mode: http://ko.com.ua/ukrainskij_rynok_biznes-prilozhenij_prishlo_vremya_smb_50252
3. Внедрение ERP-решений [Electronic resource]. – Access mode: <http://corp.cnews.ru/news/line/index.shtml?2010/12/29/421816>
4. На порогі [Electronic resource]. – Access mode: http://ko.com.ua/na_poroge_32788
5. Еволюція ERP [Electronic resource]. – Access mode: http://ko.com.ua/jevolyuciya_erp_32787
6. Исследование IDC [Electronic resource]. – Access mode: <http://www.idcukraine.com>