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# INFORMATION TECHNOLOGIES TODAY: FOREIGN AND LOCAL EXPERIENCE

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*Purpose*: show the features of the use of information technology as a large field for further study of economic processes, and management software being a decision-making and effective tool, both in Russia and abroad. *Discussion*: over the past decade, a powerful avalanche of modern software has created a situation where the most relevant for the majority of experts was not a classic programming but the ability to use the existing information technologies. *Results*: an ideal program does not exist, so for the optimal program implementation for the concrete company, it is necessary to study carefully the proposed program, analyze company's own needs and in accordance with this to develop a clear definition of various software features.

**Keywords:** processes, credit risks, financial sector, innovation activity, technology parks.

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## Introduction

In 1961 Defense Advanced Research Agency (DARPA) by order of the US Department of Defense got down to working out a project on pilot data packet network (DPN) creation. The network, named APRANET, was originally designed for studying the methods of providing stable connection between computers of different kinds.

APRANET experiment was so successful that lots of institutes wished to join it for the purpose of daily passing data and in 1975 APRANET turned into operating network. In 1983 MILNET separated from ARPANET. It belonged to Defense Data Network of CA Department of Defense. And despite the fact that in 1991 APRANET ceased to exist, the Internet still works. Now it is more extensive than it used to be as it united dozens of networks throughout the world. Impact of global computer network on the modern world is unprecedented. The Internet gives technology which opportunities to firms, companies, a corporation to become a direct information provider as well as it gives an opportunity to customers to personalize their consumption. To establish such a genuine democracy is possible only in case of developing the approach to work in the context of computerization. The avalanche of modern software products has recently created the situation in which the skill to use them correctly becomes the most important one.

By means of the Internet, or instance, increased cooperation of sellers and buyers provides the latter with greater freedom of choice, and the former with the possibility to be competitive in terms of a contract or a deal [1-5]. They began to compete in the field of quality and assortment of the goods and services provided, at the same time striving to minimize expenses. Thus, for example, Netscape Communication Corporation regularly posts on its home page the information about update versions of software, new modifications and upgrades.

#### **Discussion**

Among the most popular foreign program products it is necessary to mention those, which allow to model, imitate and analyze business processes; to maintain full range of managing business processes from strategy test to controlling; to analyze, document and reorganize complex business processes; to meet goals and targets of a company and organize integrated monitoring of strategies realization processes; to implement system-optimization and to develop direct labor and production relations; which are aimed at tackling of wide range of business-modeling tasks [4-8].

Undoubtedly, the shining example of successful solution of many problems is the use of such programs as «Syte Power» which is designed by Cokan (US) for global analysis of business processes and production data: ideal means of data analysis. They are designed in partnership with Cognos and Openlink and included a cutting-edge technology (OLAP) for analysis of purchasing, manufacturing, economic and business activities. They supported large amounts of information, run state of a company reports on a real time basis automatically. Cognos (Nasdag; COGN; TSX; CSN) is an international market leader in the field of business data mining means. software products of Cognos facilitate company management enhancement by means of decisions effectiveness increasing on each organizational level of a company.

For some years Cognos has held a strong position on the OLAP market – the market of analyzer software, which allow to develop operation panel for managers, to carry out an interactive multidimensional OLAP-review with reliably high rate of response, and also to create by visual means spontaneous requests of any complexity degree and online reports on the ground of data from accounting systems [6, 9-11].

The case study of neurocomputing is used in financial sector is credit risk management. It is commonly known that before credit granting banks perform complex statistical computations of a borrower financial accountability to size the possibility of losses owing to default in payment. Such computations are usually based on credit history assessment, evaluation of company development dynamics, financial performance stability and many other factors.

Microsoft Corporation launched a new version of operating system Windows 8.1. The radical departure of the offer is return of the start button on the home screen and the possibility to load access bar without start-up screen interface. This characteristic emphasizes the company superiority over the rivals.

Functional and methodological advantages give reasons for software products raise the demand on Russian market. Under market conditions economic development of Russian companies are aimed at going international, increasing capitalization, enticing overseas investors, etc. Here, a variety of objective reasons predetermine Russian corporate management's decision to run foreign information systems.

As a rule, foreign specialists highlight five basic tendencies of information technologies development that have a significant role in Russian companies:
1) variability of the information characteristics; 2) capability of information technologies and their logical components operate in parallel with communicating; 3) bridges deletion anticipating on their way from the information source to the consumer; 4) convergence which consists of blurring out distinctions between material and information business spheres, of maximal diversification of business activities, of various manufacturing sectors cooperation and of financial and service sectors cooperation; 5)As a result, the IT globalization leads to satellite communication and the Internet usage.

By reference to the above-mentioned facts, we conclude that we can apply foreign software products successfully not only in Russia but also abroad.

For example, software package Bank Analyst is designed for staff of investment banks, especially in financial and economic departments engaged in lending for companies. It provides an opportunity to carry out the following operations in a quick and efficient way: a) to evaluate financial and economic performance of prospective borrower; b) to calculate index of effectiveness, solvency ratio, liquidity index and financial soundness indicators; c) to calculate a breakeven point and financial strength of a company (to carry out a factor analysis of profit performance etc.); d) to foresee the bankruptcy probability (Altman Z-score); e) to show the balance between American and EU standards in factory failure report. In accordance with the data submitted, taking into account regional specificity of tax regulations and accounting policy for tax purposes: cash inflow and cash outflow, analytical accounting and anticipating of financial performance in Russia, the USA and the EU, relates to the tables of credit technical-and-economic assessment. One more software package «INEK - Analitik» is designed for executives, managers, economists and financial analysts, government organs specialists, workers of auditing and consulting firms, also for other specialists working in the field of analysis and activity planning. This software package provides an opportunity to carry out easily the following operations: a) to draw up a business plan of a company or its subsidiary: capacity planning, manufacturing expenditures estimating, demand for investment; b) to analyze a draft business plan: cash inflow and cash outflow and Russian and GAAP financial performance.

If measures target consolidation of Russian position on the world market of information technologies, the Russian Federation will have the opportunity to turn from a net importer into a net exporter of information technologies in the

near future. State support of innovative activity in the field, creation of technology parks and venture capital funds, providing tax advantages and improvement of legal framework, primarily it is partly connected with intellectual property protection. Consistent implementation of these measures in the long or medium term must facilitate growth in exports of information technologies.

Experts claim that computer and information services are promising. Firstly, Russia has highly qualified work force. Secondly, level of costs of software engineering is lower in Russia than in developed countries. The main rivals of Russia on the market of computer and information services outsourcing are India, China and the states of Central and Eastern Europe.

Fast changing of environment characteristics leads to increase of the information distribution speed. In this regard it is necessary to cut decision-making time to be a success in business, leading to increase of the rate of information transfer and information processing on the basis of new technologies.

In this respect, the experience of the USA in creation of conditions for successful development of domestic IT market and in consolidation of their competitive positions in international trade may be used in Russia as well.

American transnational companies play a discrete role in the development of the world market of information technologies. They have 1/3 market share of information technologies and computer and information services [12].

One more special feature of the market and the information technologies of the USA is the fact that the best part of researches is conducted in technology parks, that are consequently considered to be one of the effective forms of support of innovative activity, organization of universities cooperation, research and manufacturing companies. That is why technology parks play a major role in increasing competitive advantage of the country on the world market of information technologies.

The world market leader in the field of intellectual property of information is Dun & Bradstreet. This multinational company is the biggest one in the field of business data service. Its offices are situated in more than 40 states all over the world. Their clients can get information about companies from any country in the form of business reports via the global network of D&B.

Business report of a company includes registration details, information about the board, parent companies and subsidiaries, financial performance of a company, probability of bankruptcy rating and credit risk level in partnership. The quality of information is guaranteed by D&B's trademark DUNS Right and advantages given by the knowledge of local markets performance characteristics. Global database Dun & Bradstreet includes organized information about hundred millions of economic entities and is considered to be the most fertile in the field. Getting of preliminary business reports on a potential business partner is common corporate practice. It lets deal with the matters of risk management, marketing screening and Sales department performance enhancement on a timely basis. The trademark of the global database D&B symbolizes membership

of the alliance. The main mission of alliance is to help clients over the world to take business decisions confidently.

The main goal of companies' financial statements delivering is accumulation of the information that is necessary for taking decisions about investments and credits. The reason for the fact that financial statements is mainly focused on satisfaction of external users' needs is based on features of the majority of American corporations' work. Availability of financial resources within a company in the USA is closely connected with market value of capital issues of a company. Russian companies rely on different financing and credit methods (profitable connections, being on familiar terms with authorities, the possibility of getting preferential credits and tax concessions, etc.). An analysis of draft business plan effectiveness is accompanied by comments upon mistakes in it. To conclude financial and economic performance of a company's business plan implementation is provided automatically.

Nowadays, American companies not only were the originators of the branch development, but they set the directions for the further development of all key market segments in information technologies area. In addition, they are without a rival in some of the segments. This state of affairs may be exemplified by designing of software programming language and operating systems in the USA. Stiff competition urges companies to look for development trends of the systems and to invest a lot in innovations. Development of hightechnology industries, alongside with information technologies, has become one of the main directions of national policy of the USA. Permanent increase of state capital investment in R&D and consistent taking measures directed at stimulation of private companies' innovation activity, strengthening of relations between universities and private companies. Information and telecommunication technologies are the top-priority goals of further economic growth in the USA. The USA is one of the five leaders in volume of both exports and imports of information technologies, despite increasing competition among developed and developing countries on the market. Investment in information technologies are expected to be followed by economic development, increasing of sci-tech level of industry sector, development of new brunches of production. Information technologies are expected to rise to eminence in all spheres of economic and social life. There are still lots of problems on e-market. Online business lacks legal framework. Competition law should be developed, pricing and discounts should be rationalized, customer protection should be provided, etc.

### Conclusion

Based on the theoretical analysis of both domestic and foreign experience of using and configuring software products, it is important to take into account the features of the organizations, the efficiency of their adaptation to dynamic changes, specific areas of a particular company, the relative independence of the automation of jobs, i.e. ability of employees of various departments to work autonomously with accessibility imposed by each user in real time. Analyzing the

output documents, it is required to pay attention to the convenience of a report generator intended to modify existing documents and create the new ones. Measures of strengthening Russia's position in the global market will help our country in the near future have an opportunity to transform from a net – importer to a net – exporter of information technology.

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# ИНФОРМАЦИОННЫЕ ТЕХНОЛОГИИ СЕГОДНЯ: ЗАРУБЕЖНЫЙ И ОТЕЧЕСТВЕННЫЙ ОПЫТ

# Авдеева Роза Владимировна, канд. экон. наук, доц.

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*Цель*: показать особенности использования информационных технологий в качестве большого поля для дальнейшего изучения экономических процессов, где программное обеспечение для принятия управленческих решений является эффективным инструментом как в России, так и за рубежом. *Обсуждение*: за последнее десятилетие мощная лавина современного программного обеспечения создает ситуацию, при которой наиболее значимым для большинства экспертов не является классическое программирование, а возможность использовать существующие информационные технологии. *Результаты*: идеальной программы не существует, поэтому при реализация оптимальной программы для конкретной компании необходимо тщательно изучить предлагаемую программу, проанализировать собственные потребности офиса компании и в соответствии с этим разработать четкое определение ее возможности, что крайне важно.

Ключевые слова: интернет, процесс, риск.

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