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ИНФОРМАЦИОННЫЕ ТЕХНОЛОГИИ В ЭКОНОМИКЕ

Аннотация: в статье рассматривается концепция «информационных технологий» и роль информационных процессов в экономике. В работе представлено применение информационных технологий и систем. Автор подчеркивает роль облачных технологий в развитии компаний, а также выделяет переход экономики России в цифровой формат.

Ключевые слова: информационные технологии, экономика, цифровая экономика, облачные технологии, информационные системы, стратегические информационные системы.

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INFORMATION TECHNOLOGIES IN ECONOMICS

Abstract: this article discusses the concept of «information technology» and the role of information processes in the economics. The application of information

technologies and systems is shown. The role of cloud technologies in the development of companies, digitalization of the economics in Russia is outlined.

Keywords: *information technologies, economics, digital economics, cloud technologies, information systems, strategic information systems.*

Introduction.

The fourth industrial revolution, like all previous ones, made changes in the economic sphere, which undoubtedly affected all spheres of human life. In some countries more, in others the process of digitalization of the economics is less effective, involving the introduction of digital technologies into production.

Currently, information technologies have entered all spheres of human activity, including the economics. Factors such as cost minimization, increased productivity and competitiveness of enterprises / organizations through efficient software and large-scale Internet access have made the introduction of information technology in the economic sphere inevitable. Information technologies in the field of economics – a set of methods for processing initial data into information necessary to find optimal solutions, using software tools, to achieve favorable market parameters.

Information technology and systems.

An important feature of the modern economics is the transition from the industrial type to the information type. Thus, the most important criteria in the market are knowledge and information that are necessary for efficient production. The nature of labor has also changed: since the 1980s, the number of employed in intellectual labor has been growing. Due to the need for highly qualified personnel in the information field, many managers pay attention to training personnel in this direction.

The role of information technology is to process the necessary source data to obtain the necessary information. Here you can note such areas as accounting, statistics, credit and banking. That is, information technology is necessary for working in these industries. The most famous and widely used information technology is Office 365 (Word, Excel, PowerPoint, Outlook, OneDrive, Skype, etc.). More specifically, let's focus on Excel. MS Excel has extensive capabilities for processing accounting data,

designing flexible planning systems, using various financial functions, reporting, solving optimization tasks, developing business plans, etc.

Information systems today play an important strategic role as they are the determining factor in the organization gaining competitive advantages. Information system is a system that is designed for storing, searching and processing information. That is information systems help the company reduce the cost of goods or services in relation to competitors or reduce costs, leaving the same consumer value of goods.

For example, Supply Chain Management is a strategic information system. Logistics management is really challenging for many organizations. SCM develops optimal process line plans, production plans according to raw materials, production levels, lot sizes and the need for new technologies. The main tasks solved by the SCM system are:

- 1) optimization of production;
- 2) minimize production costs;
- 3) reduction of inventory;
- 4) production Control.

It is also worth noting that in connection with the development of information systems, such new types of entrepreneurial activities as the information business, automation systems, the development of information technologies, etc. appear.

Cloud technology.

Today, cloud technologies are actively developing. Cloud technology is the technology of using server resources while running a large number of virtual servers independently of each other. The main advantage of cloud systems is the unlimited storage of data, which allows you to ensure universal access to documents and combine a large number of operations. Another advantage is the significant cost minimization. The introduction of the cloud system is gaining popularity among entrepreneurs, as they realize the possibility of reducing financial costs. The nature of the cloud infrastructure allows you to sell and purchase resources with much smaller, more efficient blocks of highly virtualized hardware and software compared to the previous, traditional models of one-time purchase of large computing capacities. Amazon Web Services is the

leader in cloud technology development and delivery. The company offers a wide range of cloud products: computing services, storage, databases, analytics tools, network technologies, mobile services, developer tools, management tools, IoT technologies, security tools and enterprise applications. These services help different organizations develop faster, minimize costs in the field of information technology. The largest corporations and the developing organizations trust Amazon support of work of loadings, including mobile and Internet-applications, development of games, processing and data storage, storages, archiving and many other things.

Digitalization of the economics.

Digitalization is one of the most relevant topics of recent years. But what is digitalization? These are not digital and information technologies themselves, but the process of their introduction into various spheres of life and production. The digital economics is a system of socio-economic relations based on the use of digital information and communication. technologies. The process of introducing information technologies and digitalization of the economics in Russia has begun and has certain results. The national project «Digital Economics» has been launched, which has various goals:

- 1) make the Internet accessible to everyone;
- 2) improve the efficiency of individual industries;
- 3) improve enterprise information security;
- 4) prepare personnel taking into account the digitalization of the economics.

According to estimates by McKinsey & Company, by 2025 the volume of the digital economics of Russia may grow to 9.6 trillion rubles (compared to 3.2 trillion rubles in 2015). This should be supported by the introduction of IT in traditional industries and the development of an independent high-tech industry. According to the calculation of the consulting company, the competitiveness of enterprises will be determined by the level of their digitalization, as IT helps optimize costs and increase the profitability of investments. The introduction of digital technologies will also lead to a reduction in medium and low-skilled personnel, since in most cases robots will replace them. The benefits and risks of the digital economics are given in Table 1.

Table 1

<i>Benefits</i>	<i>Risks</i>
Productivity growth	Insufficient cyber security
The emergence of new jobs and narrowly specialized specialties	Disappearance of professions and worsening unemployment
Increasing competitiveness of enterprises	Threat to “digital sovereignty” states
Optimize production and reduce costs	Increase complexity of business models and interaction schemes
Increase in quantity online services provided	
Overcoming territorial barriers	

Conclusion.

The analysis of the role of information technologies and digitalization of the economics allows us to conclude that IT plays a key role both in the economics of individual economic entities and in the economics of the state. Information technology allows you to optimize production, minimize costs, and increase enterprise productivity. Business processes require technological and economic thinking in all sectors of the economics. At this stage of the development of the digital economics one of the most important vectors of development is cloud technology, which provides great opportunities for the development of enterprises and organizations. The main trends in the further development of enterprises will be the introduction of digital technologies in all spheres and sectors of the economics of the countries of the world, as well as an increase in demand for information services from consumers.

Список литературы

1. McKinsey & Company. Отчёт «Цифровая Россия: новая реальность». 2017 [Электронный ресурс]. – Режим доступа: https://www.mckinsey.com/ru/~/_/media/McKinsey/Locations/Europe%20and%20Middle%20East/Russia/Our%20Insights/Digital%20Russia/Digital-Russia-report.pdf
2. Расторгуев С.В. Цифровизация экономики России: тенденции, кадры, платформы, вызовы государству / С.В. Расторгуев, Ю.С. Тян. – 2019 [Электронный ресурс]. – Режим доступа: <https://cyberleninka.ru/article/n/tsifrovizatsiya-ekonomiki-rossii-tendentsii-kadry-platformy-vyzovy-gosudarstvu/viewer>

3. Информационные технологии в экономике: учеб. пособие / НИУ ВШЭ [Электронный ресурс]. – Режим доступа: <https://iq.hse.ru/more/hightech/informatsionnie-tehnologii-v-economike>

4. Тарасенко С.В. Цифровизация экономики: основа будущей цивилизации общества» / С.В. Тарасенко, В.В. Кудревич, Н.П. Гринчак. – 2018 [Электронный ресурс]. – Режим доступа: <https://elibrary.ru/item.asp?id=36426003>

5. SupplyChainManagement (SCM), или Управление цепочкой поставок [Электронный ресурс]. – Режим доступа: https://logistics.ru/21/7/1/i8_466.htm

6. Облачные продукты Amazo [Электронный ресурс]. – Режим доступа: [nhttps://aws.amazon.com/ru/product](https://aws.amazon.com/ru/product)