

## **Effectiveness Evaluation of the Use of Digital Technologies in the Organizations of the Business Sector of the Economy**

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### **Abstract**

The dynamic volatility of the use of information and communication technologies (ICT) by organizations of the business sector of the economy entails serious structural changes in the technology of production of raw materials, finished products, goods, works and services. At the same time, the use of digital technologies contributes to the formation of a number of problems related to the safety of the use of digital technologies, the need for retraining of personnel, restructuring of the organizational structure of the enterprise, etc.

The paper examines the current state of use of the main types of digital technologies in the business sector of the Russian economy, which includes: mining, manufacturing, production and distribution of electricity, gas and water, construction, wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal items, hotels and restaurants, transport, communications, as well as real estate transactions, rent and provision of services. In modern conditions, the share of digital technologies used in the business sector of the economy largely depends on the following factors: the share of national expenditures on research and development in the field of ICT, the availability of incentives and motives for the use of digital technologies in the business sector of the economy, the cost of acquiring and operating ICT, information and economic security, the use of ICT, the availability of qualified personnel. It should also be noted that the business sector of the economy is largely dependent on the import of ICT, which makes some sub-sectors of the economy dependent on imports, and makes the use of ICT unsafe in terms of ensuring the technological security of the business sector from foreign digital technologies.

The above facts require not only a detailed study of the issues related to the technological and innovative security of the use of digital technologies in the business sector, but also the development of measures that contribute to leveling the maximum possible number of risks associated with the use of digital technologies.

**Keywords:** Digital economy, Business sector of the economy, Quantitative and qualitative assessment indicators, Effectiveness of the use of digital technologies.

## Introduction

The effectiveness of the use of innovations is evaluated primarily by the mass scale of their application in the national economy, the increase in quantitative and qualitative indicators of economic development. The indicator of the mass use of digital technologies characterizes the success of the implementation of innovative technologies. Conversely, the lack of mass use of digital innovations indicates the inefficiency of the innovation implementation process, low purchasing power, and other factors that hinder the introduction of innovations [4-10].

The used analysis methodology is based on the international statistical methodology used to assess the effectiveness of ICT in the business sector of the economy. Based on these indicators, a statistical assessment of the effectiveness of the use of ICT in the Russian business sector is presented [11-16].

## Materials And Methods

The research materials are based on the study of trends in the use of digital technologies in the Russian economy. For this purpose, the indicators of the use of digital technologies in the business sector of the economy were analyzed. The data of the World Bank, published works of scientists from Russia and other countries of the world, and statistical materials were the information base of the study.

The study uses the following research methods: monographic, dialectical, abstract-logical, deductive, synthesis, analysis, economic-statistical. The research methodology involves a consistent study of trends affecting the development of human potential, as well as factors affecting it in the context of the functioning of the digital economy in some countries of the world.

## Results

Over the past 3 years, the volume of gross expenditures on the development of the digital economy has increased by 37.4%, which is a significant indicator (Table 1). If we consider the share of gross national expenditures on the development of the digital economy in GDP, this indicator increased only by 0.7% (Figure 1). This suggests that the state pays little attention to the development of digital innovations in the economy. And this is despite the adopted regulations and programs directly related to the development of the digital economy [17-23].

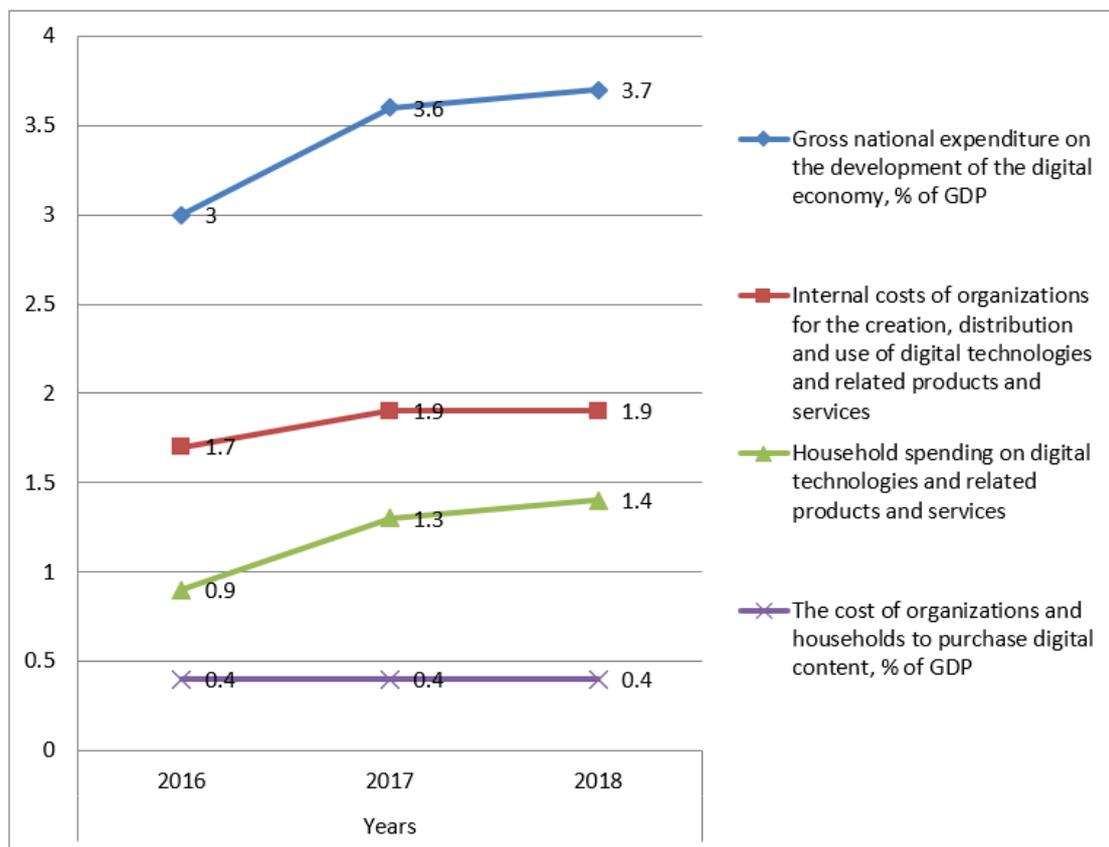
The volume of internal expenditures of organizations on the creation, distribution and use of digital technologies and related products and services increased by 24.8%, that characterizes the trend of creating and using innovations in the economy as positive. However, the share of these costs in GDP increased only by 0.2%. This is clearly not enough to improve the efficiency of organizations and the Russian economy as a whole through the implementation of digital innovations [24-28].

The situation is different in households. Household spending on digital technologies and related products and services increased by 68.52% over the past 3 years, and the share of household spending on digital technologies and related products and services in GDP increased by 0.5%, which is more than in organizations. This growth can be called paradoxical, as the population of Russia does not have sufficient solvency to meet the primary needs, not to

mention digital technologies. In the structure of household spending in Russia, up to 55% is spent on food. Nevertheless, the population tends to use digital technologies in everyday life. The costs of organizations and households for the purchase of digital content over the past 3 years increased by 20.93% and amounted to 0.4% of GDP.

**Table 1** Gross national expenditures on the development of the digital economy of Russia, billion rubles.

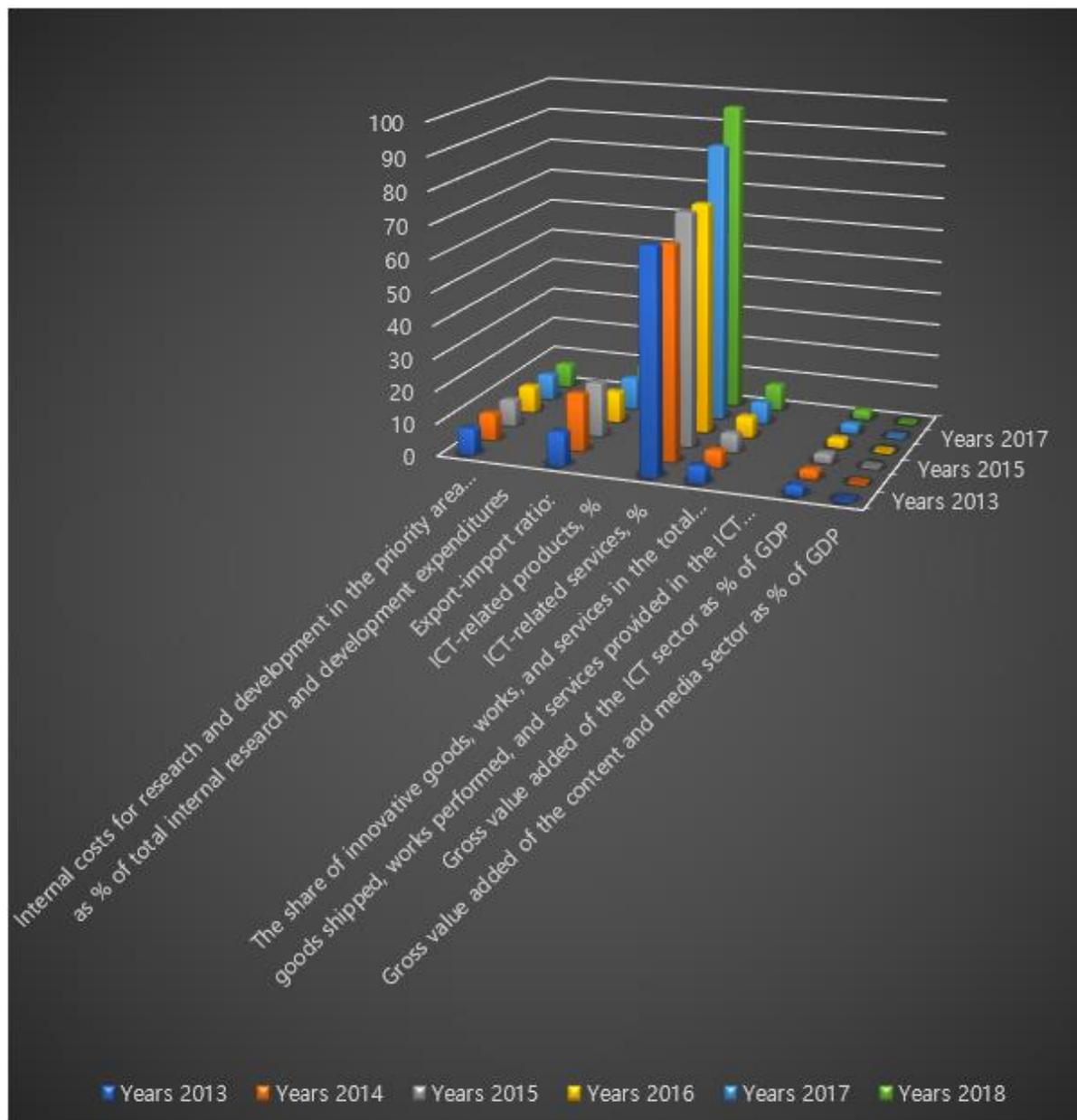
Indicators	Years		
	2016	2017	2018
Gross national expenditures on the development of the digital economy	2762	3324	3795
Internal costs of organizations for the creation, distribution and use of digital technologies and related products and services	1565	1739	1953
Household spending on digital technologies and related products and services	829	1210	1397
Costs of organizations and households to purchase digital content	368	375	445



**Figure 1.** Share of expenditures in GDP for the development of digital technologies.

The reasons for the lack of scale in the use of digital economy tools are multifaceted and multidimensional. One of the reasons is the low share of research and development costs in the priority area “Information and telecommunications systems” [9, 10]. In 2013, the share of these costs in total research and development costs was 8.0%, in 2016 8.3%, and in 2018

7.4% (Figure 2).



**Figure 2 .** Main economic indicators of the development of the digital economy of Russia.

Thus, motivational mechanisms for creating innovations in the field of ICT are not created at the state level. Another component that does not contribute to the creation of innovations in the field of digital technologies is the import of foreign ICTs. The volume of ICT imports is by 10 times greater than the volume of ICT exports. Russian organizations of the business sector of the economy acquire foreign equipment and technologies. At the same time, sometimes there are Russian analogues. There is also the possibility of creating national ICT, but consumers tend to have a high level of distrust of such technologies. This indicates the inefficiency of the innovation process of digital technologies at all stages.

Thus, using foreign technologies and tools of the digital economy, organizations of the business sector of the economy increase the share of innovative goods, works and services of

the ICT sector [6, 8]. From 2013 to 2018, this indicator increased from 5.1% to 8.0%, i.e. by an average of 0.6% per year. Such growth rates are unacceptable for the modern economy. At the same time, the share of the gross value added of the ICT sector in GDP from 2013 to 2018 did not change significantly and ranged from 2.74 to 2.87%.

The basis for the development of ICT is new knowledge, including published in international databases. Over the past 6 years, Russian scientists specializing in the field of ICT increased the share of publications in the Scopus database in the world from 1.07% to 2.76%, which is a significant but insufficient breakthrough (Table 2).

**Table 2** Indicators that characterize the qualitative state of development of the digital economy in Russia

Indicators	Years					
	2013	2014	2015	2016	2017	2018
Publications of Russian authors in the field of ICT in publications indexed in the Scopus database: total, units	3764	5570	6890	8711	11339	12884
Patent applications for inventions in the field of ICT filed by Russian applicants total, units	2209	2292	2343	1964	2266	2033
The share of financial sector organizations (in the total number of them) that use:						
broadband internet, percentages	92.2	91.9	89.3	89.3	90.6	93.0
cloud services, percentages	11.8	13.8	18.4	20.1	30.1	33.8
Economy Digitalization Index	no	24	24	25	27	29

Over the past 2 years, India increased the number of publications in the same database by more than 6%. In practice, there is a situation when Russian scientists have developments of various levels, from theoretical to prototypes, but do not have the opportunity to publish research materials due to the high price requested by journals included in the Scopus database and Web of Science.

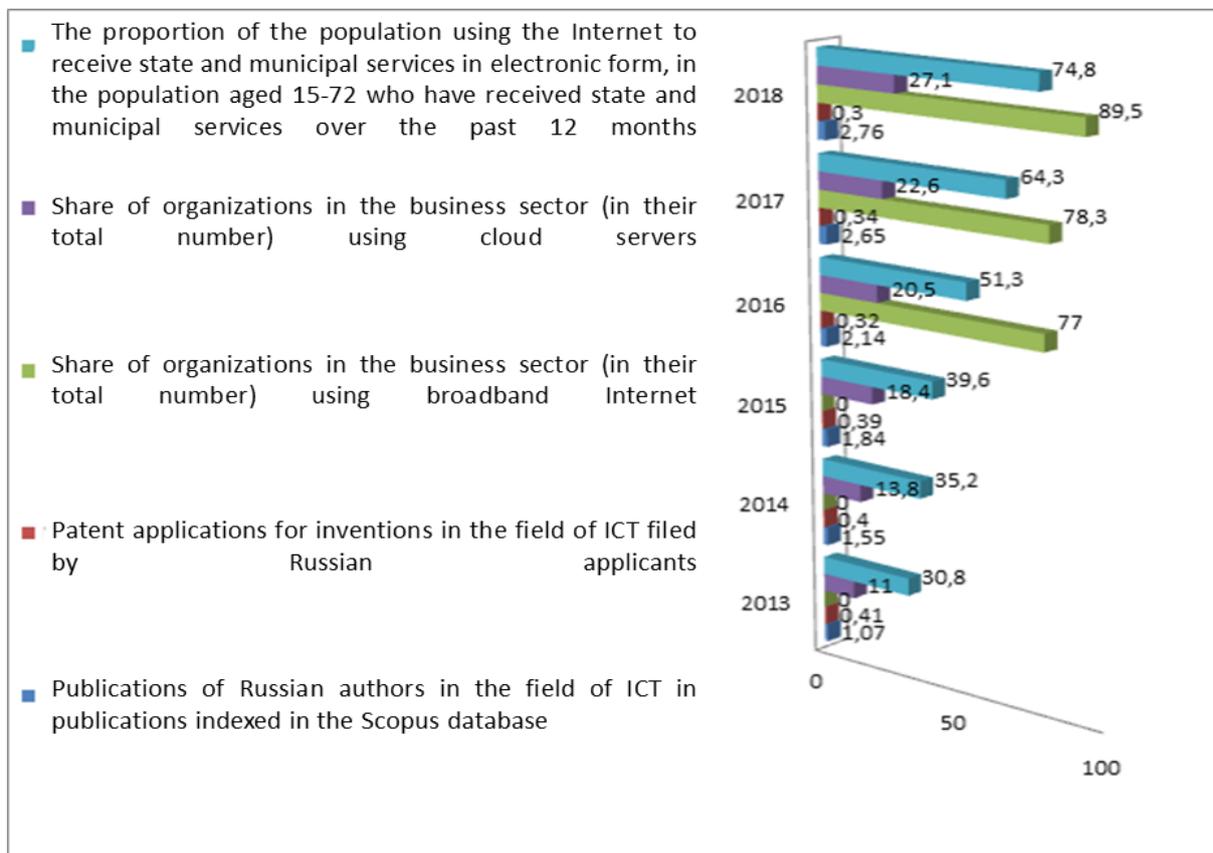
In this regard, even at the stage of theoretical development of ICT, the state does not support scientists. This does not allow stimulating the innovative process of creating ICT at the earliest stage – the formation of an idea or hypothesis, let alone a specific theoretical or practical study of the innovation. This is confirmed by the reduction in the number of patents from 2,209 to 2,033 per year. They have to pay for a patent, and the burden of payment very often falls on the researcher, which is also a problem.

Due to the acquired imported equipment and technologies, and the development of various interactive services, the share of business sector organizations using the wide-field Internet increased from 80.8% to 89.5% over the past 6 years (Figure 3).

Cloud services are used by 27.1% of business sector organizations and 33.8% of financial sector organizations. The low value of this indicator is due to the lack of security and security of data storage on these services.

In March 2011, the analytical firm IDC conducted a study that showed that many companies primarily associate big security problems with “cloud” services. And the independent research organization Portio Research only confirmed this, indicating specific figures: 68 % of the surveyed heads of European IT companies refuse to use “cloud”

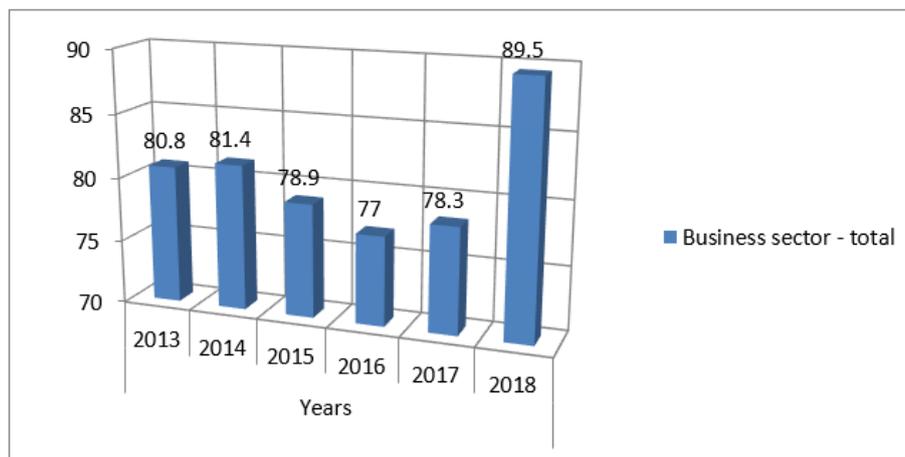
technologies for security purposes. Also, the head of G Data Security Labs and security expert Ralph Benzmueller did not recommend using “cloud” services due to the fact that the data may become public.



**Figure 3.** Indicators that characterize the qualitative development of the digital economy in Russia, %.

The introduction of the system of public services, as well as the training of the population in the basics of using the Internet, contributed to an increase in the proportion of the population using the Internet to receive state and municipal services in electronic form from 30.8% in 2013 to 74.8% in 2018.

The presence of personal computers and Internet access in the organization can be considered as the starting conditions for the development of e-business. The use of broadband Internet, characterizes its quality. Among the business sector organizations, access to broadband internet increased from 80.8% to 89.5% over the past 6 years, which is a high indicator (Figure 4).



**Figure 4.** Use of broadband [2] Internet in business sector organizations, %.

However, due to the fact that the indicator has not been stable in recent years, it is not necessary to talk about the saturation of the business sector with broadband Internet. The highest share of broadband Internet use is in manufacturing - 92.8%, wholesale and retail trade, repair of motor vehicles, motorcycles, household goods and personal items - 93.4%, communications - 91.4% (Table 3). The most common use of the Internet in business sector organizations is for e-mail – 86.4% of organizations (Figure 5). Manufacturing 90.3% and trade 91.1% use this service more actively than other industries (Table 4). The search for information is on the second place – 85.6% of organizations. The most commonly search engines are used in the manufacturing industry 90.2% of organizations and telecommunications 90.7% of organizations. The implementation of banking and other financial transactions is on the third place – 66.7% of organizations in the business sector. This service is actively used in the manufacturing industry – 77.2% and trade – 68.3%. Professional training of personnel is on the fourth place in terms of frequency of use. The leaders in the use of this service are the telecommunications industry – 63.0% and wholesale and retail trade. The remaining areas of Internet use in the business sector are used by no more than 40%. Of course, the share of enterprises using services is determined by many factors, such as industry and financial capabilities, the need for use, the availability of qualified personnel in this area, etc.

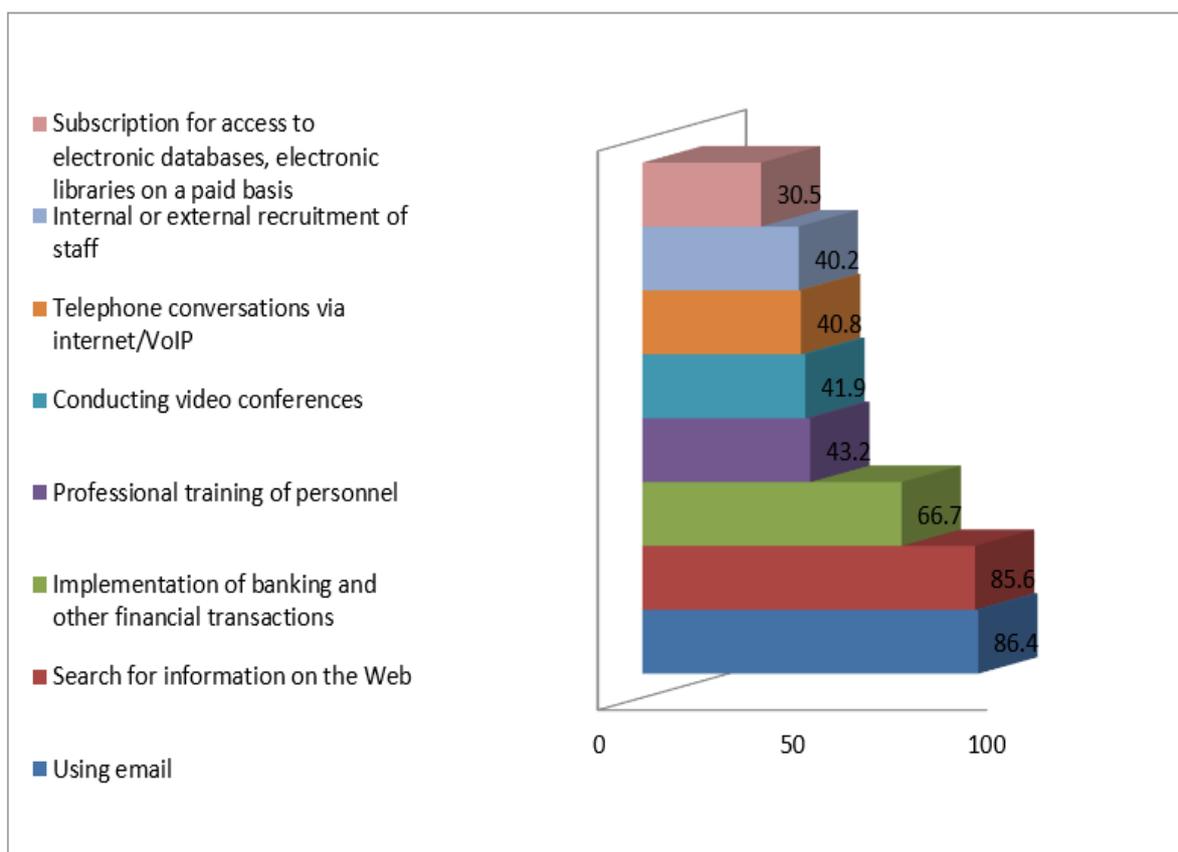
**Table 3** Broadband Internet usage in organizations by type of economic activity (as a percentage of the total number of organizations in the business sector).

Indicators	Years					
	2013	2014	2015	2016	2017	2018
Business sector – total	80.8	81.4	78.9	77.0	78.3	89.5
Mining	87.6	88.7	86.6	84.7	80.8	86.0
Manufacturing industries	89.7	90.9	90.2	86.8	86.4	92.8
Production and distribution of electricity, gas and water	75.5	78.8	77.6	76.4	79.5	89.1
Construction	85.1	85.3	84.3	80.1	75.3	83.6
Wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal items	86.6	88.3	87.6	88.2	84.9	93.4
Hotels and restaurants	74.7	78.3	77.7	71.3	72.9	84.7
Transport	74.6	75.8	73.8	69.6	77.2	83.5
Communication	92.3	92.1	89.9	87.6	89.0	91.4

Real estate transactions, rent and provision of services	73.9	73.3	68.7	66.6	51.5	83.4
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The level of broadband Internet distribution in Russia is by 15-20 percentage points lower than in countries with a developed ICT infrastructure. In most EU countries, the share of broadband users exceeded 95%, including in Slovenia, Denmark, Finland, the Netherlands, and Lithuania – it reached 99-100%. Among the leaders, in addition to the European community – the Republic of Korea (99%), New Zealand (96%). Mexico (80%), Romania and Greece (85% each) can be noted among the closest neighbors of Russia in the rating according to this indicator.

In recent years, IT services implemented on a cloud platform have become increasingly popular in the business environment. The almost unlimited expansion of the information resource without creating one’s own IT infrastructure is among the advantages of these technologies.



**Figure 5.** Directions of Internet use in organizations of the business sector of the economy, %.

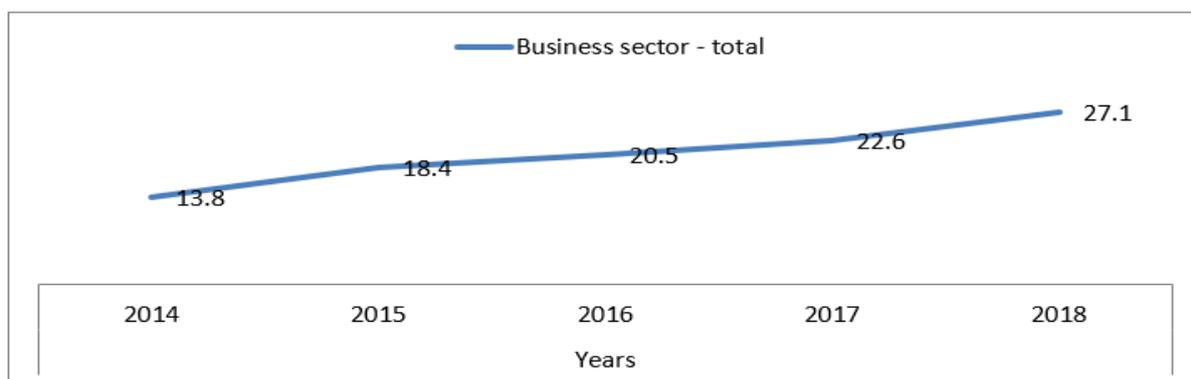
Such services include cloud technologies (or cloud computing), which are technologies for distributed digital data processing, with the help of which computer resources are provided to the Internet user as an online service. The programs run and display the results in a web browser window on a local personal computer (PC). At the same time, all the necessary applications and their data are located on a remote Internet server and are temporarily cached on the client side: on PCs, game consoles, laptops, smartphones. The advantage of the technology is that the user has access to their own data, but does not have to worry about the infrastructure, operating system and software with which they work. The word “cloud” is a

metaphor that represents a complex infrastructure that hides all the technical details behind it. Cloud computing technologies are aimed at solving the following tasks:

1. Easily work with files on multiple gadgets: edit and process them without transferring from one device to another, without having to worry about software compatibility.
2. Solution to the problem of limited computer hard disk space or flash card.
3. The issue of licensed software.
4. The ability to work on a single document to several people simultaneously.

Competent use of cloud services will allow saving not only time, but also the resources needed to create their own resources for storing and processing information. However, as it was noted above, one of the constraints for more active use of cloud services is their lack of security.

The share of business sector organizations using cloud services increased from 13.8% to 27.1% from 2013 to 2018 (Figure 6).



**Figure 6.** Use of "Cloud services" in business sector organizations, %.

Cloud services are most frequently used in communications – 36.4%, wholesale and retail trade – 36.2%, hotels and restaurants – 32.3% (Table 5). Cloud services are least used in the production and distribution of electricity – 17.4%, mining – 17.8%, transport – 19.9%. Organizations in the business sector will increase the use of this technology, as the share of organizations using this service increases every year. It is obvious that expanding the capabilities of cloud services and strengthening the security of working with them will help to increase the share of business sector organizations using such innovative technologies.

**Table 5** Use of "Cloud services" in organizations by type of economic activity (as a percentage of the total number of organizations)

Indicators	Years				
	2014	2015	2016	2017	2018
Business sector – total	13.8	18.4	20.5	22.6	27.1
Mining	11.3	16.4	17.7	17.4	17.8
Manufacturing industries	13.4	20.0	23.2	25.7	26.2
Production and distribution of electricity, gas and water	9.6	14.6	16.2	16.3	17.4
Construction	14.8	19.9	21.6	22.0	21.1

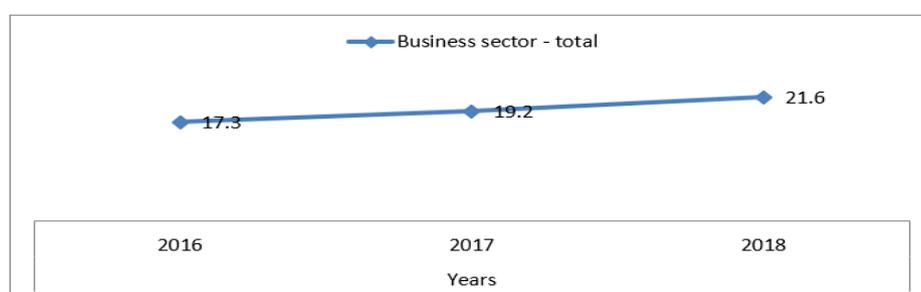
Wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal items	19.2	22.5	25.7	27.0	36.2
Hotels and restaurants	19.0	25.8	27.5	23.0	32.3
Transport	12.0	15.8	16.5	19.5	19.9
Communication	23.5	31.3	31.2	38.7	36.4
Real estate transactions, rent and provision of services	11.3	15.5	16.9	15.4	21.1

ERP-systems, which are a specific software package that implements the ERP strategy, are also most common in organizations of the business sector of the economy. ERP (Enterprise Resource Planning) is an organizational strategy for the integration of production and operations, human resource management, financial management and asset management, focused on the continuous balancing and optimization of enterprise resources through a specialized integrated application software package that provides a common data and process model for all areas of activity [3].

This type of digital technology is aimed solely at reducing the complexity of information processing processes, systematizing work, and improving the efficiency of using available resources. The main purpose of using this resource is to improve manageability, reduce the cost of information processing, and as a result, increase the efficiency of management activities and profitability of production. The objective of ERP is to help the company avoid delays, downtime, and defects. And they arise if design and production are not linked. Complexes on a common platform allow meeting the deadlines for delivery contracts. The warehouse does not accumulate an excess of products “just in case”, there is no shortage of it due to the inconsistency of the work of departments [1].

When it comes to “smart enterprise”, first of all, we mean the use of ERP systems in all departments of the organization. It is obvious that this technology should be most in demand in the field of production, as it will save resources and reduce production costs. However, in practice, it is much in demand in the field of circulation.

ERP systems are used by 21.6% of organizations in the business sector of the economy. This system is most often used in communications – 41.4%, wholesale and retail trade – 34.5%, production and distribution of electricity, gas and water – 27.6% (Figure 7).



**Figure 7.** Use of ERP systems in business sector organizations, %.

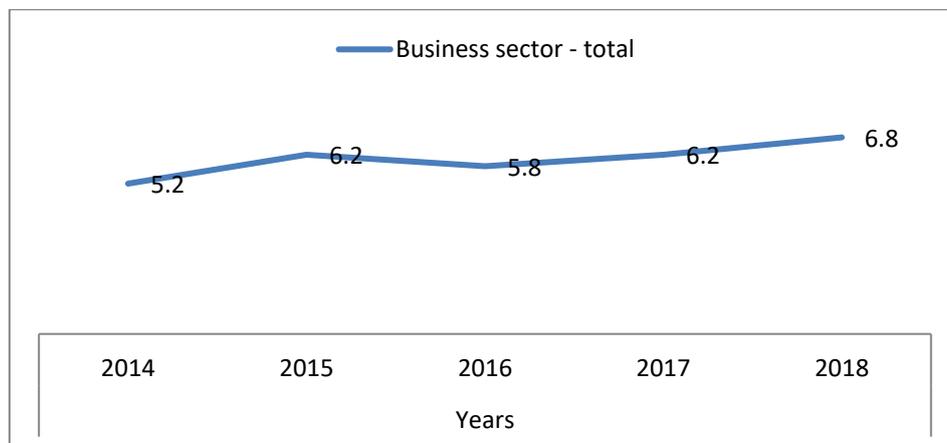
The most common use of ERP technology is in communications – 41.4%, wholesale and retail trade – 34.5%, manufacturing – 27.6% , and mining (Table 6). In other sectors of the business sector, this technology has not found widespread use for a number of reasons yet. The most common of which are: lack of understanding of the advantages of the system for

management and distrust of the information security of its use.

**Table 6** Use of ERP systems in organizations by type of economic activity(as a percentage of the total number of organizations).

Indicators	Years		
	2016	2017	2018
Business sector – total	17.3	19.2	21.6
Mining	24.5	25.6	23.0
Manufacturing industries	22.1	27.1	27.6
Production and distribution of electricity, gas and water	13.3	17.9	19.8
Construction	12.3	9.2	10.1
Wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal items	32.6	33.6	34.5
Hotels and restaurants	12.2	17.1	17.4
Transport	14.4	18.5	18.5
Communication	33.6	45.9	41.4
Real estate transactions, rent and provision of services	7.3	2.9	7.1

The next most frequently used digital technology is RFID technology. It is used by 6.8% of organizations in the business sector of the economy (Figure 8).



**Figure 8.** Use of RFID technologies in business sector organizations, %.

RFID (Radio Frequency Identification) is a method of automatic identification of objects, in which data stored in so-called transponders, or RFID tags, are read or written by means of radio signals. Any RFID system consists of a reader (reader, or interrogator) and a transponder (also known as an RFID tag) [3].

It is obvious that in the future this technology will be actively used in trade, as RFID tags, especially for certain groups of products, are better than barcodes, especially if the product is packaged. With this technology, Rottweilers can solve the problem of cheaper labeling.

In practice, wholesale and retail trade is not included in the top five organizations of the business sector that use this type of digital technology most often. Obviously, this can be considered one of the factors that indicate the backwardness of this sector of the economy from the global trends in this area. The main users of this technology are communications – 12.5%,

manufacturing – 11.4%, mining – 10.9% (Table 7).

The use of ICT by organizations in the business sector of the economy can also be judged by the use of software tools. The most popular software product is the electronic document management system. 66.0% of business sector organizations use this software for document management, 57.7% for financial calculations, 57.3% for solving organizational, managerial and economic tasks, 54.8% - electronic reference and legal systems (Figure 9). This is largely due to the need to organize the movement of not only accounting documents, which must be properly executed and taken into account, but also all kinds of instructions, responses to letters and all kinds of circulars, which create a significant burden on the management apparatus of any economic entity.

The leaders in the use of this software are the electricity supply sector – 74.3%, transportation and storage – 69.4%, wholesale and retail trade – 67.8% (Table 8). Software for making financial calculations in electronic form, which is natural for the modern economy, is on second place in terms of demand for software products. 57.7% of business sector organizations use this software product.

The remaining part of the organizations do not use this product because there is no need for accounting, or do not have the resources to organize financial calculations in electronic form. These are usually small businesses and individual entrepreneurs. The leading positions in the use of software for financial calculations in electronic form are occupied by the manufacturing industry – 66.6%, wholesale and retail trade – 61.6%, energy supply – 60.6%.

**Table 7** Use of RFID technologies in organizations by type of economic activity (as a percentage of the total number of organizations).

Indicators	Years				
	2014	2015	2016	2017	2018
Business sector – total	5.2	6.2	5.8	6.2	6.8
Mining	7.9	9.6	10.3	10.5	10.9
Manufacturing industries	7.0	8.6	8.7	9.2	11.4
Production and distribution of electricity, gas and water	4.0	5.2	4.4	6.8	7.6
Construction	5.3	6.2	5.6	5.8	5.9
Wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal items	6.4	8.3	7.8	7.5	6.8
Hotels and restaurants	5.2	6.8	7.5	8.2	8.7
Transport	6.8	6.7	6.2	6.8	7.6
Communication	10.1	9.0	8.9	10.4	12.5
Real estate transactions, rent and provision of services	3.0	3.5	3.2	3.1	3.2

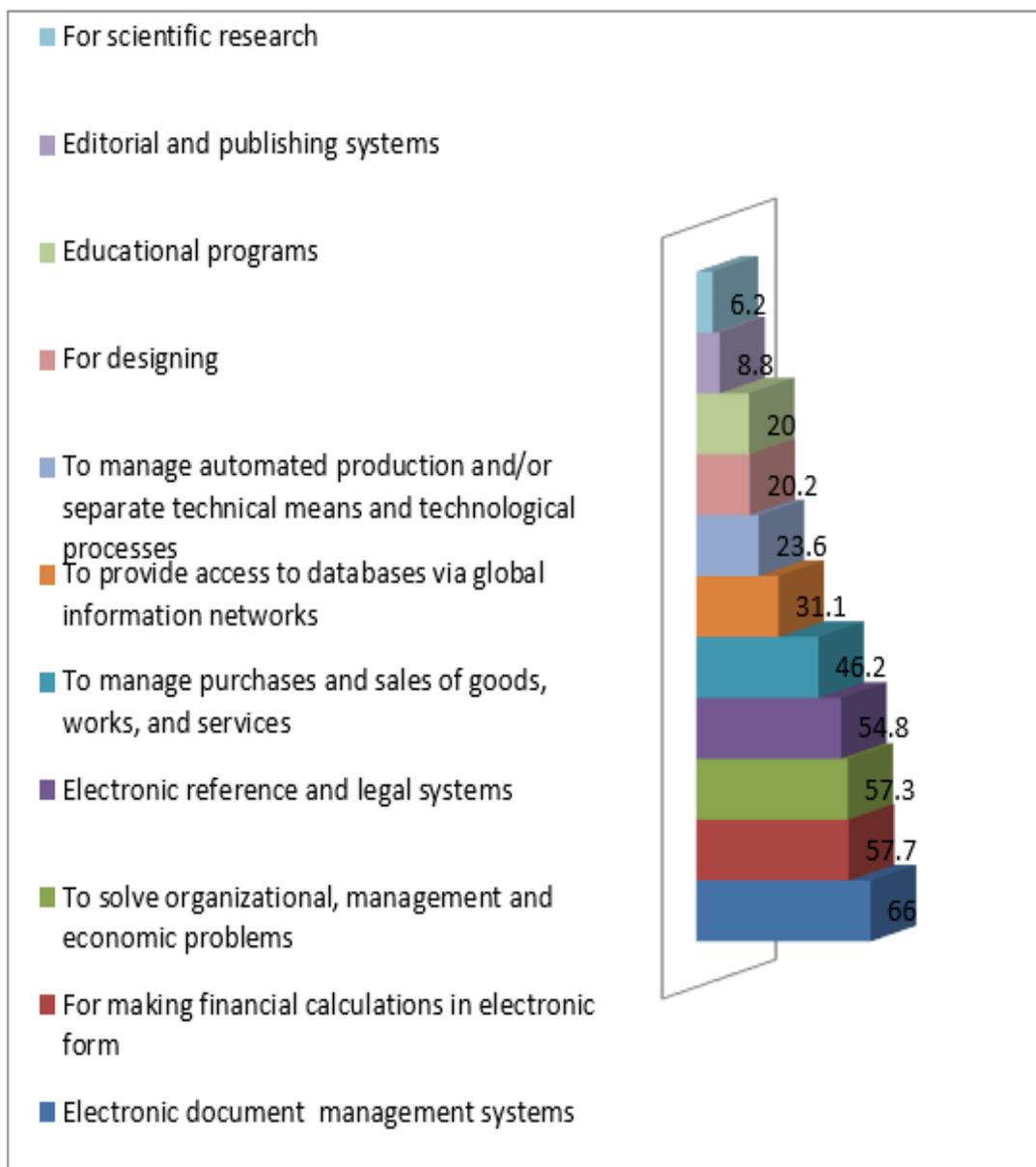


Figure 9. Use of software tools in organizations of the business sector of the economy, %.

Software products used for solving organizational, managerial and economic tasks are on the third place in terms of demand for software. 57.3% of organizations in the business sector of the economies use this software. The leaders in the use of this group of software products are manufacturing industry – 64.0%, wholesale and retail trade – 63.5%, energy supply – 61.8%.

Electronic reference and legal systems are on the fourth place in terms of the frequency of software use. 54.8% of organizations in the business sector of the economy use this kind of software. To a large extent, the frequency of using such software is associated with an increase in the share of legal issues that have a significant impact on the economic activities of any economic entity. The leaders in the use of reference legal systems are manufacturing industry – 65.7%, energy supply industry – 64.0%, mining – 58.3%.

**Table 8** Use of software tools in business sector organizations by type of economic activity: 2018 (as a percentage of the total number of organizations).

	Electronic document management systems	For making financial calculations in electronic form	To solve organizational, managerial and economic problems	Electronic reference and legal systems	To manage purchases and sales of goods, works, and services	To provide access to databases via global information systems	For the management of automated production and / or individual technical means and technological processes	For designing	Educational programs	Editorial and publishing systems	For scientific research
Business sector – total	66.0	57.7	57.3	54.8	46.2	31.1	23.6	20.2	20.0	8.8	6.2
Mining	60.6	53.1	55.3	58.3	32.8	22.5	35.6	28.5	27.6	5.2	4.2
Manufacturing industry	67.4	66.6	64.0	65.7	49.9	27.7	42.5	33.4	16.3	6.7	6.3
Energy supply	74.3	60.6	61.8	64.0	44.6	30.4	28.2	27.4	25.0	3.7	1.5
Water supply, sanitation, waste disposal	62.5	53.3	45.9	40.8	35.7	26.4	14.3	11.1	8.5	3.3	2.2
Construction	58.2	53.7	49.9	51.3	26.3	22.4	15.7	31.4	9.8	4.2	2.7
Wholesale and retail trade	67.8	61.4	63.5	56.7	68.1	41.6	25.8	21.9	29.8	14.7	11.2
Transportation and storage	69.4	54.0	60.7	57.7	38.1	25.9	32.2	15.1	28.0	4.6	1.4
Hotels and public catering	58.8	55.6	50.0	46.0	46.9	31.8	16.5	8.2	13.7	4.4	1.4
Telecommunications	58.8	55.6	50.0	46.0	46.9	31.8	48.4	33.6	37.3	13.1	4.2
Real estate transactions	60.1	51.8	46.0	42.9	27.0	22.2	9.8	10.7	6.8	2.7	1.2

Unfortunately, it is rare to use programs for managing purchases and sales in the business sector – 46.2%. Meanwhile, it is this software that, when used on a large scale, contributes to the establishment of cost-effective relationships, more profitable sales of finished products and more profitable acquisition of material and technical resources.

The frequency of use of other types of software is quite low and is rather due to the specific features of the industry. The leading industries in terms of the frequency of use of software products are the manufacturing industry (8 positions out of 11), wholesale and retail trade (8 positions out of 11), telecommunications (7 positions out of 11).

A significant part of the software the organizations of the business sector of the economy acquire from foreign developers. The leading industries in terms of the share of purchased national software are the production and distribution of electricity, gas and water – 63.56% in 2017 and 61.29% in 2018, construction – 43.71% in 2017, hotels and restaurants – 40.39% in 2018 (Table 9). The rest of the business sector is on average 80% dependent on the supply of imported software. On the one hand, this indicates the dependence of the development of the digital economy of Russia on imported software and information

processing technologies, which in turn requires the development of a comprehensive document regulating the provision of digital security in Russia from imported technologies, equipment and software.

**Table 9** Costs of organizations in the business sector for the purchase of software by type of economic activity.

	Years							
	2017				2018			
	Total, billion rubles	including on national	Structure sectoral	Structure localizations	Total, billion rubles	including on national	Structure sectoral	Structure localizations
Business sector – total	185641	40495	100.00	21.81	196171	45289	100.00	23.09
Mining	5716	1127	2.79	19.72	7222	1933	4.27	26.77
Manufacturing industries	23921	8473	20.93	35.42	31507	10692	23.61	33.94
Production and distribution of electricity, gas and water	14844	9434	23.30	63.56	15982	9794	21.63	61.29
Construction	3178	1389	3.43	43.71	2877	747	1.65	25.97
Wholesale and retail trade; repair of motor vehicles, motorcycles, household goods and personal items	13823	2996	7.40	21.68	16824	4287	9.47	25.49
Hotels and restaurants	419	96	0.24	22.92	723	292	0.65	40.39
Transport	16046	3397	8.39	21.17	18285	3933	8.69	21.51
Communication	48675	2889	7.14	5.94	60593	2884	6.37	4.76
Real estate transactions, rent and provision of services	20840	609	1.51	2.93	2039	844	1.75	41.40

On the other hand, this is a serious systemic problem caused by the low efficiency of the innovative process of developing national software products and information processing technologies. This, in turn, requires the development and adoption of comprehensive measures to activate innovation processes.

## Conclusion

The current state of use of digital technologies by the business sector of the economy depends on several factors: the level of national spending on research and development in the field of ICT, the high share of used imported ICTs, distrust of ICTs due to the lack of their

economic and information security.

The low level of financing of national research and development costs determines the risks associated with the creation of an insufficient number of ICTs, including foreign analogues, not to mention the creation of world-class technologies. In addition, this problem encourages the import of foreign ICT to Russia, making the used technologies, firstly, dependent on foreign suppliers, secondly, it may not provide a sufficient level of information security, and thirdly, it contributes, in fact, to the sponsorship of foreign ICT production.

In connection with the above, the starting point for increasing the use of digital technologies in the business sector of the economy should be an increase in national spending on research and development of ICTs, as well as the development and implementation of measures to stimulate the use of national ICTs in the business sector of the Russian economy.

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