IBIMA Publishing
Communications of International Proceedings
https://ibimapublishing.com/p-articles/38DigECO/2021/38127021/
Vol. 2021 (37), Article ID 38127021

Digitalization of the service sector in Russia: Specific Features and Prospects

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* Presented at the 38th IBIMA International Conference, 23-24 November 2021, Seville, Spain

Abstract

The rampant development of the society and the needs of the population makes it necessary to expand the range and improve the quality of services provided. In order to ensure the competitiveness of service organizations, the innovations and digitalization processes that penetrate into all sectors become essential. The issues of the digital economy in Russia at the state level were raised at the end of 2016, when the President noted in his message the urgent need to form a new Internet economy in order to increase the efficiency of its industries due to the use of information and communication technologies. In 2017, the Government developed and approved the Digital Economy program in July. The article considers the processes of digital transformation of the service sector in Russia, the features and prospects of digitalization of this sector. It is proved that during digitalization of service activities, the new opportunities arise for consumers of services, the time for servicing customers is reduced, which as a result increases the availability and quality of services.

Keywords: digital economy, digitalization, information and communication technologies, service sector

Introduction

The modern economy is characterized by an increase in the role and an increase in the volume of activity and the number of people employed in service organizations and other non-production sectors. UN data show that the employment in these sectors in the world on average increased from 42.1% in 2005 to 51.7% in 2018. In some countries, for example, the USA, Germany, the UK and France, this figure reaches 70% [1]. The data analysis provided by Rosstat confirms a similar trend in Russia.

Cite this Article as: Lyudmila Mikhailovna KORNILOVA and Anna Sergeevna KORNILOVA, Vol. 2021 (37) "Digitalization of the service sector in Russia: Specific Features and Prospects", Communications of International Proceedings, Vol. 2021 (37), ISBN: 978-0-9998551-7-1, ISSN: 2767-9640. Article ID 38127021

Table 1 - Structure indicators of the population employed in the service sector and other non-production sectors of the Russian economy for 2005-2020 [6]

Economic activities	Years									2019 - 2005
	2005	2009	2011	2013	2015	2016	2017	2019	2020	
1. Hotels and catering facilities	1.9	2.1	2.1	2.3	2.5	2.5	2.5	2.6	2.4	0.5
2. Information and communication organizations	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	0.2
3. Financial and insurance organizations	1.4	1.8	2.0	2.2	2.2	2.2	2.2	2.3	2.2	0.8
4. Educational organizations	9.2	9.4	9.2	9.2	9.2	9.4	9.5	9.5	9.5	0.3
5. Health care and social service organizations	6.8	7.7	7.7	7.7	7.7	7.8	7.9	7.9	7.8	1.0
6. Culture, sports, leisure and entertainment organizations	1.6	1.6	1.7	1.7	1.7	1.7	1.8	2.0	2.0	0.4
7. Provision of other services	1.6	2.1	2.1	2.2	2.4	2.4	2.5	2.4	2.5	0.9
Total	60.7	64.3	64.8	65.4	66.2	66.1	66.9	67.4	67.4	6.7

Thus, the population employment in the non-production sector, including the service industry in our country increased from 60.7% in 2005 to 67.4% in 2020. The growth is most noticeable in such sectors as: scientific and technical activities, health care and social services, financial and insurance activities, as well as activities of hotels and catering facilities (tabl. 1).

In addition, there is an increase in the volume of gross value added in the studied sector; at the end of 2020, the service sector and other non-production sectors of the Russian economy accounted for more than 55% [5]. This situation represents the leading role of the sector, as well as that the development and all-round introduction of information and communication technologies will contribute to maintaining positive changes. The digitalization processes can give additional stimuli to expand the range of services, ways to provide them, and, consequently, to create new business models in service activities and attract investments [2].

Materials and Methods

The study involved teachers and students. The study was carried out based on the data provided by Rosstat. The work uses widely tested reliable research methods - general scientific methods of dialectics, analysis, synthesis, induction, deduction, analogy. To solve analytical issues, the following special economic methods were used: comparisons, analytical groupings, time series analysis. The processing of statistical information was carried out in the Microsoft Excel software environment.

Results

The issues of the economy digitalization are of concern to scientists all over the world, therefore there are different approaches to the definition of concepts of "digital economy" and "digitalization of services". The second concept is rarer, its most complete definition was given by Kosheleva T.N. and Sorvina T.A., who suggest that the “digitalization of service” means the “mechanism of digital technologies and its derivatives penetration into all structural elements of the process of servicing real and potential consumers” [3]. The authors also highlight the “principles of digitalization of the service sector: sustainable generation of high-quality digital innovations in the service sector; stability of information interaction; sustainable information mobility of digital services in the service sector; generality of informational thinking of the society in the service sector” [3].

Currently, many different methods are used in order to determine the level of a country's readiness for digital changes. According to world rankings, our country noticeably pulls up the rear; it is only in the third or fourth ten rating places in the most important indices of the economy digitalization [1].

In order to understand whether service organizations are ready for development based on the information and communication technologies, it is necessary to assess whether they have the necessary computer equipment, access to the Internet, as well as the availability of websites. According to the data in Table 2 at the end of 2019, the leaders, i.e. the most actively using IT technologies are health care, education, financial and insurance organizations, as well as those providing the information and communication processes.

Table 2 - Indicators of the readiness of organizations in the service sector and other non-production sectors of the Russian economy for development based on the information and communication technologies for 2017-2019 [6].

Economic activities	Organizations that used						Organizations that had a website		
	global information networks			the Internet					
	2017	2018	2019	2017	2018	2019	2017	2018	2019
1. Wholesale and retail trade; repair of motor vehicles and motorbikes	93.5	94.3	93.0	92.6	93.4	92.1	52.9	59.3	54.5
2. Hotels and catering facilities	86.0	85.2	87.1	85.7	84.7	86.7	45.4	43.2	46.0
3. Information and communication organizations	95.7	95.3	95.7	94.9	94.6	95.0	61.5	60.1	63.2
4. Financial and insurance organizations	92.4	95.2	96.0	92.2	95.0	95.7	66.7	69.1	69.1
5. Educational organizations	97.1	95.5	94.7	97.1	95.5	94.7	87.9	83.0	84.8
6. Health care and social service organizations	95.0	95.5	96.1	94.9	95.4	96.0	72.5	75.0	80.9
7. Culture, sports, leisure and entertainment organizations	84.5	86.3	87.9	84.4	86.1	87.9	41.9	45.0	49.6
Total	89.7	92.0	92.0	88.9	91.1	91.2	47.4	50.9	51.9

Over the past three years, the number of organizations with websites has noticeably increased, which indicates an increase in the information transparency of the service sector of companies. Despite the growth in all indicators of digitalization, the analysis shows that up to date 54% of hotels and catering facilities, 50% of cultural, sports, leisure and entertainment organizations and 45% of trade organizations and locations that repair motor vehicles do not have web-sites, and, therefore, do not use this opportunity to expand the client base.

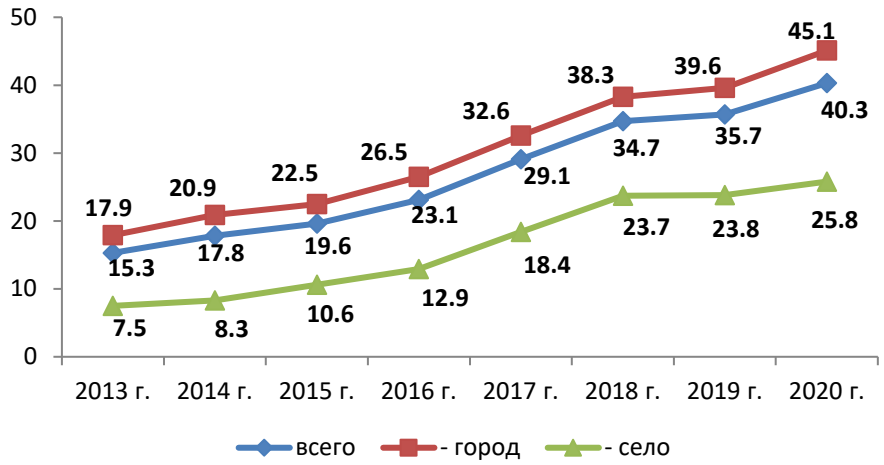
Households are the main consumers of the service sector; therefore it is very important to assess the level of their use of information and communication technologies and the Internet. According to the data provided by Rosstat, the level of digitalization of television broadcasting and the telephone network is growing from year to year. If in 1995 the level of digitalization of the local telephone network in the city was 13%, and in rural areas it was 0.7%, so at the end of 2020 it was 95.6% and 89.3%, respectively.

Table 3 - The level of digitalization of the local telephone network in Russia for 1995-2020, % [5].

	Years					
	1995	2000	2005	2010	2015	2020
- in urban areas	13.0	35.3	64.2	83.0	91.0	95.6
- in rural areas	0.7	7.9	35.8	63.9	78.1	89.3

At the end of 2020, the digital terrestrial television broadcasting services covered 99.3% of the urban population and 96.6% of the rural population. It positively characterizes the processes of digitalization and increase in the number of mobile phones, personal computers with access to the Internet for both urban and rural population. Thus, according to the Federal State Statistics Service for 2020, 76.2% of urban and 59.3% of rural households have personal computers, including 71% and 51% with Internet access, respectively. It should be noted that in 2010 the proportion of households with Internet access was only 48.4%, and at the end of 2020, it was 80%. [6].

The dynamic development of digital technologies has led to an increase in orders for goods and services via the Internet (Figure 1).



Всего	Total
Город	City
Село	Village

Figure 1 - The share of the population aged from 15 to 74 who have used the Internet to order goods and (or) services for 2013-2020, % [6]

Over the last 7 years, the share of the population ordering goods or services via the Internet has increased from 15 to 40%, and in urban areas this figure has reached 45%. The positive factor is that a quarter of village residents actively use the Internet in their daily life, order the goods they need, and select service organizations. Moreover, a gender-based analysis showed that women use the Internet more often and more actively, when ordering goods and services via the Internet the share of weaker sex is about 4-5% higher than the stronger one.

All of this gives evidence of the effectiveness of state policy aimed at digitalizing the economy, which is focused on the creation and development of IT infrastructure, the introduction of digital platforms in health care, education, transport and other industries. A special stimulus for the increase in the number of Internet users was the State Services portal, which saves time, minimizes visits to government agencies and unnecessary contacts with service providers. The share of the population who prefers the Internet to receive state and municipal services is growing rapidly from year to year: in 2013 it was only 10.7%, in 2016 - 28.8%, in 2018 more than half of the population received public services via the Internet, and at the end of 2020 - 58.7%.

It should be noted that the development of digital technologies creates both potential threats and new opportunities for the development of service organizations based on an innovation basis. It should be considered that the customers expect additional value from their interactions with a traditional service provider via the digital channels (e.g., time saving through online registration, service and expert selection, reservation and payment). In addition, along with the provision of many services in digital format, developments and services that can be provided to the client exclusively in digital format more actively appear [4]. In the course of digitalization, traditional services change their properties and characteristics. The use of digital technologies increases the share of material elements, because the most of information about the services sold and their providers is converted into machine-readable form and can be stored. The consumer receives information without contacting the service provider, regardless of distance, which expands his choice. A better choice of a supplier produces the effect of increasing service received satisfaction and customer loyalty. The main risk is the unconscientiousness of the subject who distributes information about the services, as well as financial fraudsters.

The penetration of digital technologies into all life spheres has a significant impact on both the nature and form of services provision and the business processes of service enterprises themselves. The digitalization of the service sector defines new challenges in terms of the competencies of employees of these organizations, specifies requirements for the availability of digital competencies in specialists, since in order to provide a high quality service, they need to confidently use information resources and technologies, work on information platforms, various digital platforms.

An important feature of the digitalization of service activities is that, along with the development of digital competencies among employees of service organizations, both the potential recipients of services and the standing customers of these organizations should have these competencies. The high rates of digitalization of the industry in recent years are explained by the change of generations, the appearance of new types of consumers. Young population prefers to find a service provider, receive it in electronic format if possible, and pay via digital services. Digital platforms that act as intermedia between the

customer and the service provider have significantly changed business processes, increasing the production effectiveness and efficiency of interaction.

Today we can easily conclude that the digitalization processes will expand and scale. Digital platforms are being replaced by digital ecosystems that are able to provide a variety of services and products, as well as all the necessary information to meet customer needs. Such authors as Morozov M.M. and Morozov M.A. give the following definition of a digital ecosystem - it is an interconnected and interdependent group of economic entities that share digital platforms to achieve mutually beneficial aims [5]. They emphasize that within the digital ecosystems, a unique product is being formed with increased consumer value for customers. The main advantage of digital ecosystems is that they allow a client to access all services and products within a given ecosystem from a single place. Today, 5-6 large ecosystems are already actively functioning on the market, but this is only the beginning, in the near future this niche will be expanded as much as possible, because the convenience of these services is undeniable.

Conclusion

Thus, the further development of the service industry is associated with the expansion of digital technologies and resources. The main task of digitalization of the service sector is to reduce consumption costs, as one of the factors for improving the quality of life of the population. The introduction of innovations and the transition to digital technologies not only significantly increase the operational effect and competitiveness of the service organizations themselves, but also improve the quality of life of the population - end consumers.

References

- Voskolovich Nina Aleksandrovna Measuring the impact of digital transformation of the service sector on the quality of life of the population // Public administration. Electronic bulletin. 2019. No.75. URL: https://cyberleninka.ru/article/n/izmerenie-vliyaniya-tsifrovoy-transformatsii-sfery-uslug-na-kachestvo-zhizni-naseleniya (date of application: 16.08.2021).
- N.I. Sutyagina, O.V. Sutyagina, A.S. Kornilova, E.R. Mikhailova, M.S. Abrosimova, E.A. Ivanov Methodological Approach to Assessing the Effectiveness of Cluster Interaction in the Field of Rural Services (2020) Proceedings of the 35rd International Business Information Management Association Conference, IBIMA 2020: Education Excellence and Innovation Management: A 2025 Vision to Sustain Economic Development during Global Challenges, pp. 14991-15002.
- Kosheleva Tatyana Nikolaevna, Sorvina Taisia Andreevna, Features of the strategic management of small and medium-sized service companies in the context of the digital economy formation // Petersburg Economics Journal. 2019. No.4. URL: https://cyberleninka.ru/article/n/osobennosti-strategicheskogo-upravleniya-malyh-i-srednih-servisnyh-kompaniy-v-usloviyah-stanovleniya-tsifrovoy-ekonomiki (date of application: 16.08.2021).
- Melenkin V.L., Chesheva K. K. A new dominant of the innovation activity of a service organization in the context of digitalization // Economics and ecology of territorial entities. 2020. No.3. URL: https://cyberleninka.ru/article/n/novaya-dominanta-innovatsionnoy-deyatelnosti-servisnoy-organizatsii-v-usloviyah-tsifrovizatsii (date of application: 18.08.2021).
- M.M. Morozov, M.A. Morozov DIGITAL ECOSYSTEMS AS A TOOL OF SERVICE ECONOMY TRANSFORMATION // The Bulletin of the Academy of Knowledge. 2021. No.4 (45). URL: https://cyberleninka.ru/article/n/tsifrovye-ekosistemy-kak-instrument-transformatsii-servisnoy-ekonomiki (date of application: 09.09.2021).
- Federal State Statistics Service [Electronic resource]. - Access mode: http://www.gks.ru. Date of application 15.08.2021