Perspectives of Development of the Educational Services Market in Regions of Russia in the Conditions of the Knowledge Economy Formation

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Abstract. The purpose of the article is to study the perspectives of development of the educational services market in regions of Russia in the conditions of the knowledge economy formation. The methodological basis of the research consists of the method of structural analysis, which is used for studying the Russia's position in the ranking of the countries on development of knowledge economy, and the method of horizontal analysis, which is used for studying the dynamics of formation and development of knowledge economy in modern Russia. The information and analytical basis of the article includes the materials of the Federal State Statistics Service of the RF and the index of knowledge economy according to the World Bank. The authors also study the process of formation of knowledge economy in Russia and determine that it has been continuing for the last 25 years and will last for 8 more years in case of preservation of the current tendency. The state's efforts on management of this process are peculiar for low effectiveness. This is due to insufficient consideration of regional peculiarities and needs during development of the educational services markets in Russia's regions. A serious problem of knowledge economy development in Russia is weak connection between development of regional markets of educational services and the national course at formation of knowledge economy. For solving these problems, the authors offer practical recommendations and develop a perspective model of development of the educational services market in Russia's regions in the conditions of the knowledge economy formation.

Keywords: Educational service market · Regions of Russia
Knowledge economy

1 Introduction

Economic system's setting on the path of development of economy is a serious challenge for all other spheres of national economy, as the entrepreneurial structures that work in them have to change their business processes in the direction of increase of knowledge intensity, shift of emphasis of human resources, as compared to other types of resources, and orientation at innovational development. The educational services

market is subject to most serious transformations, as it bears the main load for development of knowledge economy.

In the conditions of the knowledge economy formation, educational services market is not just an environment for preparation of necessary human resources but a source of knowledge – the newest technologies of production, organization, and management, innovational products (goods and services), etc. In the countries with large territory and high level of differentiation in the level of socio-economic development of economic systems, which are parts of the national economy, the conditions, intensity, and directions of development of regional educational services markets differ, and the level of diversity could be rather high.

On the one hand, this hinders their unification and formation of a non-structural national educational services market, which is easily predictable and manageable, and which structural elements are in close interconnection. On the other hand, development of educational services markets according to the peculiarities of the regions of their location allows accelerating the process of knowledge economy formation due to creation of knowledge and human resources that are necessary for each specific region, this leveling disproportions in development of the national economic system.

That's why regional models of development of educational services markets should take into account the peculiarities of regional economic systems. This explains the topicality of research of the regional aspect of development of the educational services market in the context of the knowledge economy development. The authors focus on the modern Russian economy and seek the goal of studying the perspectives of development of the educational services market in regions of Russia in the conditions of the knowledge economy formation.

2   Materials and Method

Peculiarities of functioning and development of regional economies in the national economic systems are viewed in the studies (Fleischmann et al. 2017; Otoiu et al. 2017; Ge and Zhao 2017; Guliak 2017; Anukoonwattaka 2016). The conceptual and applied issues of development of regional educational services markets of the countries of the world are reflected in the publications (Popkova et al. 2016; Ragulina et al. 2015; Bogoviz et al. 2017; Bogdanova et al. 2016; Popova et al. 2016). The essence of the process of the knowledge economy formation is studied in the works (Fathollahi et al. 2017; Amavilah et al. 2017; Kuleshov et al. 2017).

The performed content analysis of the scientific works on the set problem determined insufficient scientific elaboration of the influence of the processes, related to creation of knowledge economy, on development of regional educational services markets, which leads to the necessity for further research of this issue.

The methodological basis of the research consists of the methods of structural analysis, which is used by the authors to study the Russia's position in the ranking of the countries on creation of knowledge economy, and the method of horizontal analysis, which is used for studying the dynamics of formation and development of knowledge economy in modern Russia.

The information and analytical basis of the research includes the materials of the Federal State Statistics Service and the index of knowledge economy according to the World Bank, which is the basis for annual rankings of 140 countries of the world.

3   Results

The value of the knowledge economy index in Russia constituted 5.78 in 2016. It is ranked 55th, near Ukraine, Belarus, and Qatar. The key reason for such low position of Russia in the ranking of the countries is ineffective regional educational services market, the result of functioning of which is low innovative activity and low level of development of technologies (World Bank 2016).

The innovational system, which consists of companies, R&D centers, universities, consultation agencies, and other organizations, has not been formed in Russia yet. There's no connection between the sphere of science and education and the production sector of economy. As a result, the created innovations do not reach targeted consumers and remain at the level of dissertation studies.

Another important reason of insufficiently high level of development of science and innovations is the ineffective system of patenting the right for scientific inventions and innovational technologies. Complexity of the procedure of patenting of new knowledge is a serious barrier for the Russian scholars. The system of commercialization of innovations is not developed sufficiently.

Another reason is the lack of financial resources due to absence of assets with the state and due to low investment attractiveness of innovational projects for private investors. Scholars cannot perform research with their private assets, as the research requires a lot of money.

Thus, the studies are not performed at all, or are performed to a limited extent – which does not allow obtaining the desired results and compiling the results. Due to these reasons, the process of the knowledge economy formation in Russia is not yet completed and continues until now. The structure of this process is reflected in Fig. 1.

As is seen from Fig. 1, the process of the knowledge economy formation in Russia took place in three stages. The beginning of the first stage was the Russia's transition to the market path of development in 1991. After this, in 1992–2002, the share of expenditures for innovations in the structure of GDP was growing from 0.03% to 0.60%. The growth was very quick and constituted more than 250% per year. In this period, the volume of innovational goods, works, and services increased, constituting RUB 430 billion, and the share of the companies that implement innovations reached 11%.

During the second stage (2002–2013), the share of expenditures for innovations in the structure of GDP continued to grow, but slower – 13% per year, from 0.61% in 2000 to 0.83% in 2010. The volume of innovational goods, works, and services grew, consisting RUB 230–700 billion. The share of the companies that implement innovations grew insubstantially, constituting 11%–12%.

At the third stage, which began in 2014 and lasted until 2016, the shareo of expenditures for innovations in the structure of GDP grew very quickly – the growth
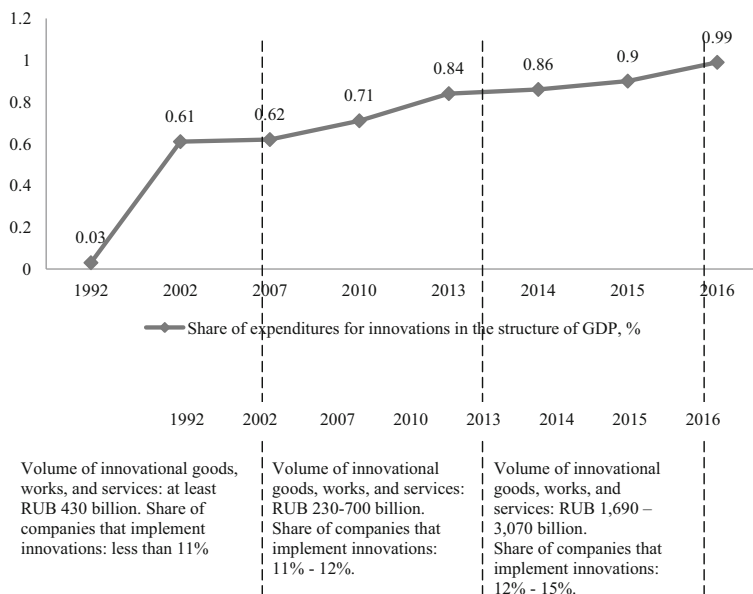
Fig. 1. The process of the knowledge economy formation in Russia. Source: compiled by the author with the use of the materials (Rosstat 2016).

constituted around 30% per year – from 0.84% in 2011 to 0.99% in 2014. The volume of innovational goods, works, and services grew more, constituting RUB 1,690–3,070. The share of the companies that implement innovations also grew, constituting 12%–15%.

At present, it is possible to suppose that the next stage of this process will begin in 2017 and will continue until full formation of the knowledge economy in Russia. In view of the modern state policy's orientation at formation of innovational economy and announcement of the strategy of innovational development of Russia until 2020, it is possible to suppose that this stage covers the period from 2017 to 2025.

At this stage, it is necessary to expect the increase of the share of expenditures for innovations in the structure of GDP up to 3%. The volume of innovational goods, works, and services might increase to RUB 5,000 billion. The share of the companies that implement innovations might constitute 35–40%. This will take Russia to the level of developed countries and will allow forming knowledge economy.

The most serious problems of the regional educational services market in Russia are low quality of education and weak connection between the educational market and the labor market. In order to created conditions for successful knowledge economy formation in modern Russia, it is necessary to solve these problems, which supposes increase of the quality of education and establishment of strong connection between the labor market and the educational services market. For this, we offer the following recommendations.

Firstly, it is necessary to raise the level of education. In addition to increase of the number of students, it is necessary to focus on improvement of quality and topicality of development of education and increase of qualification, in order to solve the problem of

the lack of useful and necessary skills with the graduates of the higher educational establishments.

Secondly, it is necessary to raise the diversity of authorities of the educational establishments and the prestige of technical and professional education. At present, Russia has a critical necessity for diversification of the system of education for the purpose of reduction of the excessive emphasis on theoretical knowledge and for supplementing the educational programs with a range of applied studies that reflect the factual state of the sphere of national economy at present.

Thirdly, it is important to ensure flexibility and responsiveness of the system of education to the requirements of the regional labor market. The key attribute of the educational system's development is provision of the necessary qualification and competence for the specialists, necessary at the labor market. For that, educational establishments require more flexibility and adaptability, for adaptation to the quickly changing global economic environment and development of the required talents and skills.

Fourthly, it is important to ensure correspondence of the Russian educational establishments to the global standards. Higher educational establishments of the global standard and leading models of R&D centers and university centers are necessary for ensuring the development of talents in top-priority sectors of economy. Such models could be built from scratch – by modernizing the existing institutes due to partnership with the world-class universities.

Fifthly, it is necessary to create centers of leading experience in the sphere of scientific research. For this, it is necessary to invest large resources into educational and R&D centers. This will ensure conduct of original and potentially innovational research and creation of the society of scholars, technologists, and specialists in various spheres of national economy.

Sixthly, it is necessary to implement the information and communication technologies into the sphere of education. At present, it is clear that there will be a transition to the next generation of solutions in the sphere of the information and communication technologies in education. Recently, such technologies as platforms of online education, tools for joint virtual work, Internet resources, digital access to libraries, video courses, and creation of virtual training programs have been approbated in the Russian educational establishments with different levels of effectiveness.

Seventhly, it is necessary to stimulate implementation of the information and communication technologies as the main – not additional – means of teaching. The information and communication technologies in education will probably become the most powerful tool for raising the quality of education. The people who grew in the age of digital technologies – so called "digital natives" – perceive the surrounding environment differently, as compared to the past generations. That's why there's a necessity for new approaches to education for successful teaching of new generation.

Based on the above recommendations, we developed a perspective model of development of the educational services market in regions of Russia in the conditions of the knowledge economy formation, which is shown in Fig. 2.
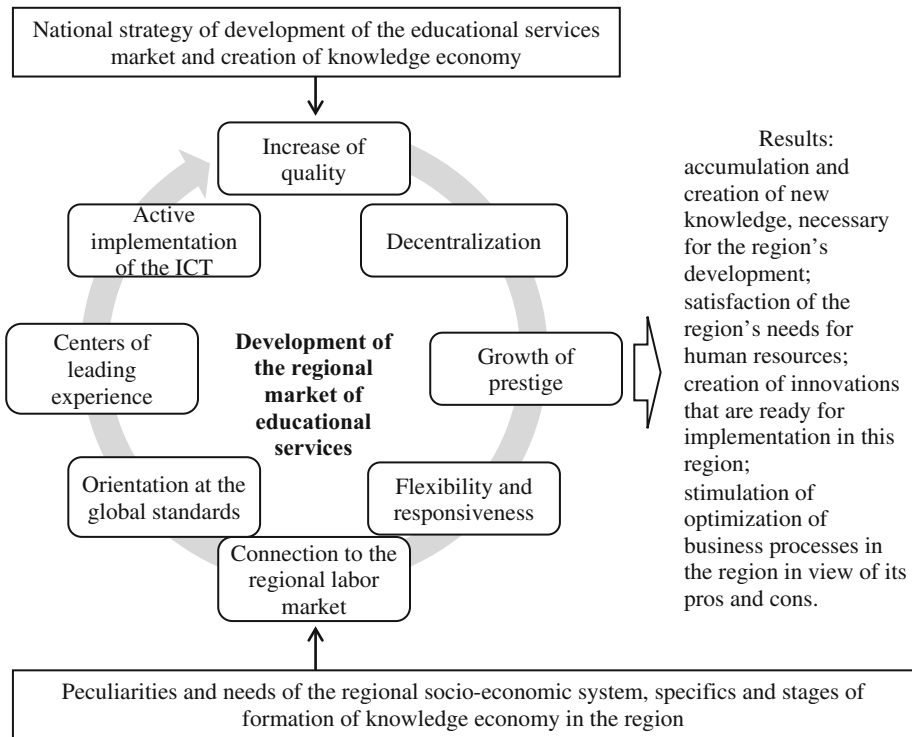
Fig. 2. A perspective model of development of the educational services market in regions of Russia in the conditions of the knowledge economy formation. Source: compiled by the authors.

As is seen from Fig. 2, according to the offered model, the development of the educational services market in a region takes place in connection to the national strategy of development of the educational services market and creation of knowledge economy and in view of the peculiarities and needs of the regional socio-economic system, as well as specifics and stage of the knowledge economy formation in a region. This allows achieving such results as accumulation and creation of new knowledge, necessary for development of the region, satisfaction of the region's needs for human resources, creation of innovations that are ready for implementation in this region, and stimulation of optimization of business processes in the region in view of its pros and cons.

4   Conclusions

Thus, modern Russia is in the process of the knowledge economy formation, which has been continuing for the last 25 years; with preservation of the current tendency it will last for at least 8 more years. The state's efforts on management of this process are peculiar for low effectiveness. According to the analysis performed in the research, the probable reason for this is insufficient consideration of regional peculiarities and needs during development of educational services markets in regions of Russia.

A serious problem of creation of knowledge economy in Russia is weak connection between development of regional educational services markets and the national course at formation of knowledge economy. The authors' recommendations and the offered perspective model of development of the educational services market in regions of Russia in the conditions of the knowledge economy formation allow solving the determined problems, increasing the effectiveness of management, and accelerating the process of the knowledge economy formation in modern Russia.

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