

Regional system of professional education in the information society

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Abstract – The article is devoted to the study of "regional system of professional education" concept, the identification and characteristics of its constituent components. The classification of factors influencing the regional system of professional education functioning and development in terms of new industrialization is presented. The factors related to the process of information society emergence are performed as a separate group. The thesis of new information era accompanied by the digital economy development is proved. The regional system of professional education concept being transformed in terms of information society is argued: while maintaining the traditional elements, further innovative ones are still being introduced; it would obviously lead to a new role of professional education system in both the national and regional economy.

Keywords – regional system of professional education, digital economy, factors.

I. INTRODUCTION

The changes in the politics and economy of Russian society that began at the end of the last century required the development of a new paradigm. Education is considered to be one of the most important factors of social development in terms of new economy: it is a basis for human capital accumulation and development as well as competitiveness of territories, regions and countries. The educational sphere is in the process of strategic reform whereby the regional system of professional education is transformed. The regions have "individual" distinctive features: cultural, historical, social and economic, natural, etc.

The regional system of professional education as shown by the analysis of scientific works and researches in this direction is one of the subsystems in the complex social and economic system of the region. As a subsystem, it itself is a complex and interrelated social and economic structure, it forms the basis for further social and economic development of the region, and furthermore, it is well-managed, and acts as a factor for its controllability increasing.

The regional features are projected on the system of professional education. The essence of regional differences led to changes in the components of professional education regional system. It is necessary to study the concept of the regional system of professional education in order to

understand its essence, identify and characterize its components. It should be noted that with the emergence of new information era, accompanied by digital economy development, the content of professional education regional system is being transformed: along with the maintaining of traditional elements, further innovative ones are still being introduced. "The digital economy is one of the newest intensively developing directions of economic science" [12, p. 18].

The process of professional education regional system development and functioning is influenced by many different factors at different levels: local, regional, and national. The external environment is the basis for the regional system of professional education development; the internal environment gives it an identity, particularly in regional features. The groups of factors to develop professional education regional system (PERS) are illustrated in figure 1.

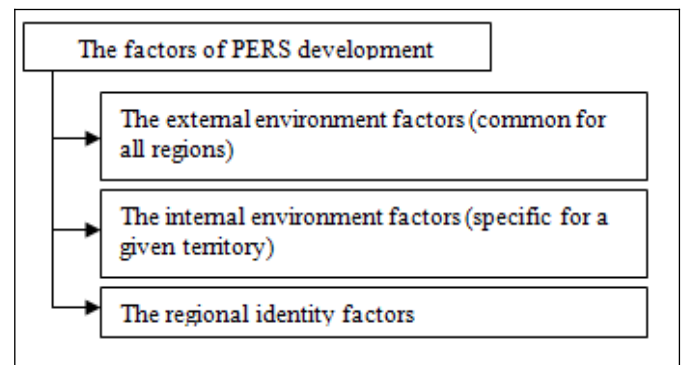


Fig. 1. The groups of factors develop the professional education regional system

The identified general groups of factors have a direct and / or indirect impact on the functioning and development of the professional education regional system, its transformation and formation of a certain development strategy in terms of new information era accompanied by the digital economy emergence. For example, E.G. Animica and Ya.P. Silin mark the role and importance of higher education for digital economy development considering it (digital economy) the basis of a qualitatively new model of economic life changing

the format of education and other spheres of society. Digital economy and education become a matter of national security [12].

II. LITERATURE REVIEW

The issues of functioning and development of regional social and economic systems has recently attracted great interest among Russian and foreign researchers among whom there is E.G. Animica and V.A. Suhii (2007) [2], V.A. Suhii (2007) [13], M.A. Shabanova (2006) [15], A. Ehtcioni (2002) [16], E.B. Dvoryadkina and O.A. Belikova (2014) [5] A.R. Tonzherakova (2014) [14], G.K. Lapushinskaya (2014) [7] and many others.

The social and economic systems of the region are closely linked to the functioning and development of professional education regional systems. The analysis of factors influencing their development in terms of the new economy is provided by R.T. Adarina and A.A. Tonzherakova (2013) [1], G.N. Lishchina(2013) [8], N.A. Dmitriev and L.A. Konstantinova (2014) [4]; the possess of digitalization in the system of education is studied by E.G. Animica, Ya.P. Silin (2017) [12] and others.

Many authors consider the regional system of professional education as a set of various interacting agents (educational institutions), among which G.N. Lyschina (2013) [8], V.V. Zemlyanskiy (2011) [6], D. G. Shatalov (2007) [11], G.V. Mukhametzyanova and A.R. Shaidullina (2008) [10], and V.V. Miroshnichenko (2013) [9].

III. DATA AND METHODS

A comprehensive theoretical approach has been applied to study the regional system of professional education; the clauses of system approach and theories of spatial development as well as the theory of socio-economics are the basis of it [2, 13, 15, 16].

This method of research, in our opinion, allows us to substantiate the conceptual position of the need to ensure the functioning and development of the professional education regional system in space, to identify (classify) the factors that affect the transformation of the system in terms of new industrialization process, and to determine its role in the regional and national economy. With the emergence of new information era accompanied by the formation and development of the digital economy this method identifies how the content of professional education regional system is transformed.

IV. RESULTS AND DISCUSSION

Let us just take a look at different approaches to the concept of “regional system of professional education”. It should be noted that the article pays greater attention to the modern approaches of this concept taking into account the ongoing process of new industrialization in the space that characterizes the features of professional education system at the regional level. Thus, A.A. Tonzherakova studies the system under consideration as social and economic subsystem of the regional economy that is responsible for the increase of

human capital efficiency in the region [14]. This approach determines the process of social and economic development of the region as well as modernization (transformation) of the regional system of professional education in modern conditions that occur simultaneously.

V.V. Zemlyanskiy shares the position by G.N. Lyschina in understanding the concept of professional education system of the region as “a set of interrelated and interconnected subjects of education, components providing professional training, re-training, and staff development at different levels of the social demand: Federal Public Contract, Regional Contract, and employers as the subject of the contract” [8, p. 102].

A similar interpretation of this concept is provided by D.G. Setalov who views this system as “... a functionally interconnected set of subjects involved in production, distribution, and consumption of higher professional education services in the region” [11, p.10].

According to E.N. Gusarskaya, the educational market, possessing individual characteristics, is formed in the region, it has become an integral part of the regional market as a whole and has formed a complex social and economic subsystem [3, p. 194].

G.V. Mukhametzyanova and A.R. Shaidullina prove the individual “regional educational space to be formed in every region, the former to function as an educational cluster. They view the professional education system of the region development in this direction. The authors mentioned interpret the concept of educational cluster as a set of “manufacturing companies associations, research and *educational institutions, equipment and services suppliers* that are geographically located in close proximity to each other and working to obtain competitive advantages and create knowledge-intensive and high-tech products “[10, p.10].

N.A. Dmitriev and L.A. Konstantinova follow the authors above; they stress the necessity to form a unified educational policy in the context of the region and mark the importance of establishing and effective functioning of the regional educational space [10, p. 65].

V.V. Miroshnichenko defines the concept of professional education system of the region as “a set interconnected educational institutions, innovative process (occurring both inside and outside of them) and activity to manage them” [9]. We share this view of professional education system of the region to be “the most important formation and development factor of the country economic potential” [9] as well as each the region one. In that regard, the researchers pay great attention to solve the current development and functioning problems of professional education systems of the region, the solution to which, as we see, might be in case of its transformation where the partial transmitting traditional elements is working with relevant innovative changes demanded by the new economic conditions.

Summarizing the concepts of professional education system of the region analyzed above, the author's definition of it is as follows: the regional system of professional education

is a set of educational institutions implementing the programs of basic, additional professional training and professional education operating in the social and economic space of the region and located territorially in municipalities whose activities are aimed at the development of the regional economy labor potential.

Figure 1 shows the selected functioning and development factors of the professional education system of the region, where there is a separate group of factors connected with the process of information society emergence. With the advent of a new information era accompanied by the formation of the digital economy, the reform (transformation) of the educational system becomes the most important and strategic priority for modern Russia.

A separate group illustrates the factors connected with the process of information society emergence shown in figure 2.

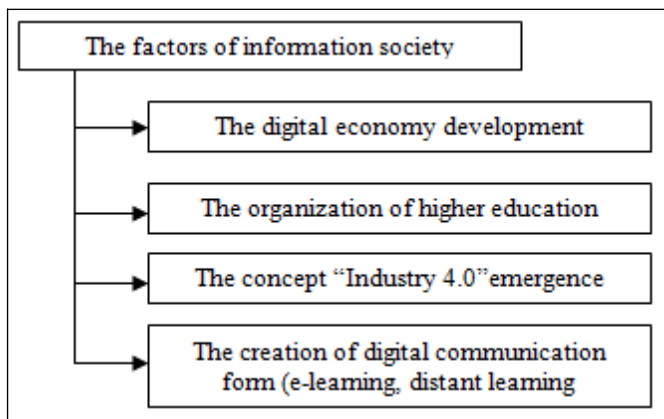


Fig. 2. The Group of Innovative Society Factors

According to the experts we follow, “the digitalization of the economy is directly connected to the educational environment development” [12, p. 22]. A single digital environment allows everyone to have equal access to education, building his/her own educational trajectory that indicates the main task of universities of the country – “the creation of fruitful educational and research environment ...” [12, p.22].

The following digital development indicators of professional education system of the region in the space are grouped in this study: information openness of educational institutions, the use of special software in the educational programs implementation, and the use of e-learning and distance learning technologies. In terms of the developing information era other indicators will emerge along with former ones.

V. CONCLUSION

The education system as well as the regional system of professional education in particular occupies one of the leading places in the development of modern society. As a result of its transformation the role and importance of this system in the formation of the digital economy as the newest rapidly developing direction in the world increases.

The main components of the regional system of professional education are as follows: educational institutions implementing the programs of basic, additional professional training and professional education operating in the social and economic space of the region and located territorially in municipalities whose activities are aimed at the development of the regional economy labor potential.

Every region is characterized by “individuality” expressed in the culture, history, specificity, development of professional education system of the region, the importance of which is clearly defined in the formation of a new information society, the process of economy digitalization, and new industrialization.

The regional system of professional education should reflect the trends of digital development in the space. The digital development indicators of the professional education system are actively developing that, of course, leads to a new role of the professional education system both in national and in regional economy.

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