Development of the Additional Professional Education Under Pandemic Conditions

Moroshkina M.V.1,2,* Murashkina L.V.1

1 Petrozavodsk State University Department of Economics and Law, 185011, Petrozavodsk
2 KarNC RAS Institute of Economics, 185030, Petrozavodsk
*Corresponding author. Email: maribel74@mail.ru

ABSTRACT
In this article the current issues concerning functioning and development of the additional professional education system as an element of continuing professional education in provision of the country’s breakthrough social and economic development under the contemporary conditions are considered. On the basis of the statistical data analysis, the priority areas of the additional professional education system are considered and the main probable consumers of this service sector and their age distribution are studied. The main problems and controversies, which bar the additional professional education system development under the conditions of constant modernization of the educational system and the substantial changes in the job market demand for competitive labor power, are analyzed and defined. The results, achieved under this research, can be used in preparation of strategic and programming documents and formulation of the measures, aimed at development of the educational system, namely, the additional professional education system.
Keywords: continuing education, additional professional education, educational system, competitiveness in the job market, adult student.

1. INTRODUCTION
Strategic tasks, aimed at provision of breakthrough research and technological, social and economic development of the Russian Federation, imply creation of the conditions and possibilities for self-fulfillment and displaying of a talent of each person. Implementation of the national project tasks in the field of education constitutes modernization of the professional education as a result of introduction of adaptable, practice-oriented and flexible educational programs. The significant task, set within the project, is forming of a system of continuing advanced training for the employed persons [1].
Demand for solution of the set problems brings up to date the role of the additional professional education as an integral part of a continuing education system. The additional professional education under the conditions of accelerated change of global factors of the environment, introduction of digital, collaborative economy, groundbreaking technologies and concepts of production and management serves as a real mechanism of adaptation to changes in the professional activity and private life of people. Efficiently functioning system of the additional professional education provides the conditions for permanent personal advancement and professional development, increase of the human capital assets, and also serves as a condition of sustainable economic growth of the country. Declining economy and rise in unemployment under the conditions of COVID-19 pandemic even to a greater extent highlights the demand for the efficient additional professional education.

2. METHODOLOGY
The educational system covers several levels: from preschool to professional. The assessment of involvement of the adults in the process of education is considered in various contexts and within different territorial entities. The scientists have found correlation between the economic development level and the rates of involvement of adults in formal and additional education [2].
In research of learning resources and their impact on the dynamics of economic development, special attention is paid to the financial matter. Assessment of impact of education on the financial well-being of the population is considered in the particular papers. There can be a substantial number of approaches to assessment of such impact. It can be exemplified by the paper, where Heckman’s generalized model is used for this issue [3].
The matter of employment and labor resources development during economic instability periods is quite up-to-date [5]. During the pandemic a part of the employable population was dismissed or made redundant. Coincidence of the containment measures with enactment of the law on gradual retirement-age increase substantially decreased employment of pensioners [6]. The additional professional education, which allows changing
professional competencies range, can be proposed as one of the mechanisms for stabilization of the situation.

The theoretical researches in this field have quite different objects: foreign and national experience of the additional professional education development is different, owing to the differences in education concepts [7], and those changes, which were particularly introduced in the additional professional education system by the education reform.

Russian educational system was subjected to the range of changes, which transformed the educational process and its components, including the additional professional education system [8]. Most of the contemporary researchers, such as E.V. Anisimov [9] and T.V. Altypova T [10], specify the importance of personnel qualification forming and enhancing as one of the matters, which form educational services quality.

In accordance with S.G. Vershlovsky, the additional programs, providing the professional education and development of personnel, are able to "provide the results, which are qualitatively different from the results of education, performed in accordance with the traditional or functional-role model." [11]

The additional professional education in its sense and meaning is aimed at permanent development of a person’s capabilities.

For the persons, who pass training under the programs of secondary vocational or higher education, the additional professional education serves as a tool, a possibility of personal growth and self-fulfillment and provides maximization of their competitive ability on the job market. For the persons, who have completed secondary vocational or higher education, the additional professional education is a lifeline, which helps to be in demand as a professional under the conditions of changing options and technologies, and get new competences, required by the job market at the moment and in the future.

Development of the additional professional education system shall be based on the competency building approach, in accordance with which the professional education shall be in correspondence with the requirements and demands of the job market [12].

However, the gap between offer and demand on the market of the additional professional education services is enormous, though there is a tendency towards its decrease. During the last decade the demand for the additional professional training in Russia was quite stable and amounted to about 16 million people. The actual coverage with the additional professional education services increased from a little over two million people in 2013 to a little over six million people in 2018 [16]. The gap between the offer and demand decreased, though in 2018 the demand for the additional professional education was satisfied only by 37%.

Herewith, the abovementioned demand for the additional professional education services in 2018 amounted to only 19% from the population of the employable age and only 7% of them got the additional professional education. If compared with the European Union countries, the part of the population of the employable age, which participated in training or education, averagely, amounted to about 45%.

The above issue allows defining the main vector of improvement of the additional professional education system.

3. THE RESULTS

The additional professional education in the educational system is defined by the mechanisms, which allow gainfully employed population to change the field of work and adapt themselves to the existing challenges. The aim of the performed research is analysis of functioning of the additional professional education system, consideration of the main possibilities of its development and functioning and also definition of the areas of concern and if they require settlement.

The object of the research is the additional professional education system of the Northwestern Federal District, particularly, the Republic of Karelia. The subject of the research is the process of functioning of the additional professional education system.

4. DISCUSSION OF RESULTS

In accordance with the Federal Law “On Education in the Russian Federation” as of 29.12.2012 No. 273-FZ, enacted as of December 29, 2012 (art. 76), the additional professional education is defined as a process, implemented as a result of the additional professional training programs (advanced training and occupational retraining programs) and is aimed at satisfaction of educational and professional needs, professional development of a person, provision of correspondence of its qualification with the changing conditions of professional activity and social environment [3]. In the Table 1 the statistical data, characterizing the amount and structure of the professional education institutions in the whole country, in the Northwestern Federal District and in the Republic of Karelia, is presented.

Qualitative assessment of the institutions, implementing educational activity under the additional professional education programs in the Republic of Karelia, the Russian Federation and the Northwestern Federal District, showed different tendencies. For example, in the Republic of Karelia the share of the additional professional education institutions is larger. There is another tendency in the Russian Federation in the whole and in the Northwestern Federal District. The share of the vocational education institutions is the upmost.

It shall be admitted that the age structure of the students is quite different (Table 2)
Table 1 Type of institution, amount – units, 2018

<table>
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<tr>
<th>Indicator name</th>
<th>The RF</th>
<th>%</th>
<th>The Northwestern Federal District</th>
<th>%</th>
<th>The Republic of Karelia</th>
<th>%</th>
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<tbody>
<tr>
<td>Additional professional education institutions</td>
<td>1,981</td>
<td>33.95</td>
<td>200</td>
<td>31.65</td>
<td>15</td>
<td>45.45</td>
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<tr>
<td>Vocational education institutions</td>
<td>2,044</td>
<td>35.03</td>
<td>210</td>
<td>33.23</td>
<td>12</td>
<td>36.36</td>
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<tr>
<td>Higher education institutions</td>
<td>1,121</td>
<td>19.21</td>
<td>132</td>
<td>20.88</td>
<td>6</td>
<td>18.19</td>
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<td>Scientific institutions</td>
<td>137</td>
<td>2.35</td>
<td>16</td>
<td>2.53</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other institutions</td>
<td>552</td>
<td>9.46</td>
<td>74</td>
<td>11.71</td>
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*source: data of the Federal State Statistics Service (Rosstat). Information on training in the institutions, implementing educational activity under the additional professional education programs, 2018.

Table 2 Age Distribution of the Students, %

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<tbody>
<tr>
<td>The Republic of Karelia</td>
<td>3.68</td>
<td>8.36</td>
<td>13.48</td>
<td>15.94</td>
<td>25.22</td>
<td>17.35</td>
<td>9.04</td>
<td>3.91</td>
<td>1.71</td>
</tr>
</tbody>
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*source: compiled by the authors.

The performed analysis defined the age group, for whom getting education is most important (Table 2). Average age group is more often interested in change of education. By changing skills, competencies and knowledge this group gets an opportunity to change its labor potential. This tendency is common to people, who have vocational education and non-demanded higher education.

In most cases the additional professional education makes a professional more demanded under the conditions of changing economic climate.

By no means unimportant is the educational program, under which a student gets new professional skills.

Figure 1 Age Distribution of the Additional Professional Education Consumers.

Figure 2. Distribution of students throughout the programs and age groups in the Russian Federation.

The assessment of distribution of the additional professional education students in the Russian Federation shows superior interest to the advanced training programs, and the group, which shows maximum demand, is the
group of middle-aged people from 35 to 44 years (Figure 2).

Figure 3. Distribution of students throughout the programs and age groups in the Northwestern Federal District.

The situation in the Northwestern Federal District is similar to the situation in the Russian Federation in the whole. Preference is also given to the advanced training programs, and the group, which shows maximum demand, is also the average age group.

The achieved results of the population age structure assessment showed that the average age group is mostly interested in advanced training programs (Figures 2-4). The achieved results allow saying that the advanced training programs are mostly demanded on the additional professional education market, contrary to the occupational retraining programs.

The main advantage of the additional professional education is the possibility to respond to the demand on the job market, taking into account special features of different economic segments and sectors. The Federal Law No. 273 as of 29.12.2012 “On Education in the Russian Federation” [14] defines professional education as a part of educational activity, aimed at getting knowledge, skills, experience and forming of the competences, required in the professional activity [14].

Currently the additional professional education performs functions of development and improvement of the professional skills and also forming of the competencies, required for settlement of problem situations.

Figure 5. Distribution of the students throughout the programs and educational level.

The achieved results regarding distribution of the students throughout the programs also showed that the preference is given to the advanced training programs. This fact allows saying that this kind of educational services is highly demanded. The exception is provided by the persons, who have been discharged from military service. In this case the preference is given to occupational retraining programs. It occurs owning to availability of the occupational retraining program on the basis of the effective legislation.

5. CONCLUSION

The performed research and the situation in the global community have defined the ways and possibilities of continuing education development. While on the subject of the additional professional education problems, along with the problems, which have been already specified, we shall emphasize the controversy between the variety of demands for additional education of different social groups of adults and lack of educational services offer, taking into account the special features of each group.

Continuing education as a tool of professional competitive ability and increase of the human capital assets brings up to date research and practical interest to studying distinctive patterns of gaining knowledge and skills by an adult subject of learning activity [15].

All the teachers, working in the system of the additional professional education, know that this group substantially differs from the students, who study under higher education programs. These are adult people with the steady professional preferences, their own professional experience and particular social status, but different learning capabilities. The existing stereotype regarding the decrease of capability to learn with aging is convincingly denied by the researches, who have proved that mental performance and psychophysiological potential of a
human reaches the maximum level in the middle age and that it does not decrease substantially in the following years. 
International experience of involvement of elderly people of preretirement and retirement age in active working life testifies that upon passing a training or retraining these people show no less productive labor than younger students [16]. 
However, physiological and psychological features of adult students imply specific forms and methods of teaching. 
Special features of adult students: 
- more conscious attitude to the value and the process of education; 
- rejection of strict control, need for independence; 
- purpose-oriented practical focus of education, need for studying new methods and approaches, but not for teaching, need for systematization of the existing knowledge; 
- professional and life experience as an important factor of educative process; 
- high variability and differentiation in requests for education, defined by the factors of time, profession, social factors and many others. 
These particular features promote efficiency of interactive adult training methods: seminars and business trainings, business and role games, design modeling, discussions in small teams with use of the whole spectrum of digital technologies. Active teaching methods are always oriented at solution of a contemporary practical problem under real-life conditions and imply acceptable result from the perspective of efficiency.
The adults, who study, do not need knowledge and skills for future use. They need education, which can be immediately applied. The higher is the educational level and practical experience of a student, the more the student strives for its improvement. Development of creativity and professional potential for provision of competitive ability during the whole life is the point, that determines the value and importance of continuing education. 
The abovementioned special features of teaching adults require higher level of professional qualification and mega competence from the teachers. Preparation and attraction of highly-qualified personnel (not only teachers, but also the executive staff) to the additional professional education system is the most important condition and a complex problem in provision of modernization and development. To sum it up, the additional professional education system as an element of the continuing education system, should and can become a factor of economic growth acceleration. The practical tasks, which define the vector of modernization of the additional professional education, are the following: 
- performance of qualification and competency-based preparation of the labor power in accordance with the contemporary economic demands, taking into account its structural changes; 
- provision of training and retraining of the professionals, who promote development of the top-priority sectors of economics; 
- support of introduction of new technologies, providing breakthrough competitive advantages; 
- increase of the cost of human capital assets, labor power and the whole society.
Renewal and modernization of the additional professional education system is one of the most important education development trends and also serves as the tool and the engine, providing economic growth acceleration at the present stage.

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REFERENCES

[1] Decree of the President of the RF No. 207 as of 07.05.2018 “On the National Goals and Strategic Tasks of the Development of the Russian Federation for the Period up to 2024”. The official web-site of the President of the RF. (In Russian)


