Reforming the system of higher education in the post-Soviet state: features and problems

Abstract—The priority task of reforming the system of higher education of post-Soviet countries is integration into the world educational space by bringing the management of Kazakhstan's system of higher education in accordance with generally recognized international norms and standards. This led to significant changes in organizational and structural plans. Updating the content of education and improving the quality of training in accordance with the current socio-economic and political conditions of the Republic and the progressive experience of highly developed countries. Over the past decade, the system of higher education in Kazakhstan and Russia has undergone significant structural transformations: universities have received a greater degree of autonomy in the management of their activities, greater freedom in determining educational policy, changed the direction of specialization of universities, created a competitive environment. However, the increasing requirements of society to quality higher education, the deepening of imbalances between the supply of educational services and the needs of the labour market, an inefficient use of society’s resources directed to the system of higher education arising out of lack of mechanisms of coordination of the purposes and performance of higher education institutions with the needs of the state and society, radical renewal of educational technologies, changes in the organizational and economic mechanisms of management of educational institutions, increased competition in the market of educational services, create the need to search for new strategic approaches in the management of higher education. Currently, there is an objective need to form a model of public administration of higher education. The article presents the results of sociological research, on the basis of which the analysis of the management of the system of higher education in the region is carried out and measures for its improvement are developed. The authors conclude that the higher education system today is the area of interaction interests of the state and society in the face of their institutions and citizens, which involves the mandatory participation of subjects of educational relations in management and the ability to influence the functioning and development of higher education system and also responsible for creating the conditions necessary for the performance of higher education system of their social and educational functions. In this regard, there is a need to redefine the role and functions of the state in providing activities of educational institutions, involving the solution of educational problems of various social institutions and redefine the role of educational institutions and the students themselves in the process of education.

Keywords—world educational space, globalization, higher education system, reformation

I. INTRODUCTION

Globalization, radical changes in the world have a great impact not only on the development of material-technical and scientific-theoretical foundations of social progress, but also on the socio-political and ideological processes, the formation of a free and progressive social consciousness [1-5]. Over the past decade in the former Soviet Union have been...
significant changes in the organization of education governance: the regulatory framework, to overcome the departmental approach to the management of educational institutions is the establishment of cooperation between state and public forms of education management, the role of associations of educational institutions. The society has formed a new approach to the understanding of modern education, based on its quality and the introduction of the latest innovative pedagogical technologies [6]. Education was among the main priorities of the government of many countries that seek to create a flexible mobile system of higher education that meet the new requirements in the conditions of global competition [4, 7].

One of the main tasks of reforming the system of higher education of the Republic of Kazakhstan is the integration into the world educational space. At the same time, the most important condition for the integration of the educational process is the interaction of state authorities with institutions of social regulation in the management of the higher education system.

At the same time, the analysis suggests that the interaction of the individual, society and the state in the designated process is in its infancy (table 1).

**TABLE I. INTERACTION OF SUBJECTS IN THE MANAGEMENT OF THE HIGHER EDUCATION SYSTEM OF THE REPUBLIC OF KAZAKHSTAN AND RUSSIAN FEDERATION**

| Functions/actors                                           | Planning | Personality | Society | Government |
|-------------------------------------------------------------|----------|-------------|---------|------------|
| defining labour market needs                                | not to participate | not to participate | participate | |
| formation of the classifier of specialties                  | not to participate | not to participate | participate | |
| formation of the state order                                | not to participate | not to participate | participate | |
| development of state compulsory education standards         | partially involved | not to participate | participate | |
| development of standard programs                            | partially involved | not to participate | participate | |
| Organizations                                               |           |             |         |            |
| creation of legislative and other regulatory legal framework for the functioning of education | not to participate | not to participate | participate | |
| updating of educational, methodical support and material and technical base | partially involved | not to participate | participate | |
| Control and analysis                                        |           |             |         |            |
| licensing                                                   | not to participate | not to participate | participate | |
| state certification                                         | partially involved | not to participate | participate | |
| accreditation                                               | partially involved | partially involved | participate | |

II. MATERIALS AND METHODS

In order to identify the interaction of the individual, society and the state in the management of the higher education system, sociological studies were conducted.

At the first stage, a questionnaire survey of students of Taraz state University, Shakarim State University of Semey, Bashkirt State University RUDN University was conducted. The survey involved 412 students, of which 42.3 percent are enrolled in Taraz state pedagogical University, 24% of Shakarim State University of Semey, 33.7% - Bashkirt State University, RUDN University. Among the respondents 58.1% were girls and 41.9% were boys. At the same time, 33.6% of respondents study in technical specialties, 66.4% - in Education and Humanities. Of those surveyed, 24.9% are 1st year students, 37.4% are second year students and 37.7% are third year students.

A total of 396 teachers were interviewed. Of those surveyed, 58.5% were women and 41.5% were men. Among the teachers, 24.3% have a degree; 41.4% train specialists in technical specialties, 58.6% - in education and Humanities.

At the third stage, employers of Semey region, employees of the Department of education of Bashkortstan, secondary schools, preschool institutions and enterprises of the city were interviewed. All were interviewed 402 of the employer, of which 198 people - educators, 204 heads of various structural units of industrial enterprises, 8.4% have experience of 1-5 years, with 34.4% from 5-10 years and 57.2% for more than 10 years. The majority (94.1 percent) have higher education, 1.3 percent higher, at 4.6% is a degree. Of those polled 38.2% of working heads of organizations, 34.1 per cent, Methodists, the heads of departments, and 27.7% - teachers, the master stations.

III. RESULTS

On the way of development of international relations in the field of higher education there are a number of obstacles caused by political, economic, socio-cultural differences of countries. Strained political relations between countries affect not only the nature of economic cooperation, but also a decrease or increase in the number of student and teacher exchanges sponsored and supported by government sources.

Changes in legislation for universities stimulate or inhibit the development of new educational services. Legislative gaps and obstacles in the field of customs regulation of trade between foreign and domestic universities do not contribute to mutually beneficial inter-University contacts.

The data obtained during the research showed that more than half of the surveyed students (59.9%), teachers (72.7%) and employers (76.1%) are informed about the processes of integration of the higher education system of the Republic of Kazakhstan and the Russian Federation into the world educational space, while 9.2% of students, 12.8% of teachers and
6.5% of employers do not know or are not fully informed (Fig. 1).

Fig. 1. Awareness of respondents about the processes of integration of higher education in the world educational space, in % of the total number of respondents: 1 - students, 2 - teacher, 3 - employer; blue - the answer "Yes", red - the answer "no", yellow - the answer "difficult to answer, I do not know."

To the question "How do You feel about the ongoing changes in the system of higher education?", every second teacher (53.8%) said that the reforms are successful, however, 21.8% of teachers hold the opposite opinion. Three quarters of employers (62.2%) believe that the reform of higher education is partially underway, and 9.0% noted a negative reform process. At the same time, it should be noted that among students of Kazakh and Russian universities, almost every second Respondent (49.4%) gave a positive assessment of the changes and a quarter of the surveyed students (25.2%) expressed a negative attitude (Fig. 2).

The dominant goal in the management of the higher school system is the quality of education. In this regard, the respondents were asked the question "Is the modernization of the management of the higher education system able to improve the quality of education?". Critically assessing various aspects of the existing system of higher education in the region, about half of the respondents among students (59.1%), teachers (61.1%) and employers (43.9%) believe that an effective modernization of the management of higher education can improve the quality of training. At the same time, we note that among students (12.8%), teachers (18.4%) and employers (43.9%) believe that reforming the management of the higher education system will partially improve the quality of training of graduates. At the same time, about a quarter of students, teachers and employers (28.1%, 20.5%, 31.8% accordingly) expressed that the modernization of the management of the higher education system does not improve quality (Fig. 3).

Fig. 2. The ratio of respondents to the ongoing changes in the system of higher education, in % to the total number of respondents: 1 - students, 2 - teachers, 3 - employers; blue - successfully, red - no, yellow - partially.

Fig. 3. Respondents' opinions on improving (reducing) the quality of students' training in the context of modernization of management of the higher education system, in % of the total number of respondents; 1 - students, 2 - teachers, 3 - employers; blue - successfully, red - no, yellow - partially.

Based on the fact that the most important factors influencing the quality of education, quality of education, medium education and educational technologies, the level of capacity of the teaching staff, the effectiveness of the system of monitoring progress, providing feedback on the results of the educational process, the success of socialization, consistency needs of the individual, society and state in the level and quality of education appropriate to consider the question of satisfaction of the respondents the education they receive.

Fig. 4. Satisfaction of students of different courses with education, in % to the total number of respondents: 1 - Yes, 2 - no, 3 - partially, 4 - I find it difficult to answer; blue - 1 course, red - 2 course, yellow - 3 course.
Despite the measures applied in recent years in the Republic of Kazakhstan to improve the management of the higher education system, the satisfaction with the education received by the students themselves looks rather pessimistic (Fig. 4). So, to the question "are you Satisfied with your education?", the majority of first-year students (89.6%) answered in the affirmative, among third-year students satisfaction with education expressed only a third of respondents (32.3%). Thus, every fourth third-year student (25.5%) is not satisfied or partially satisfied (28.1%) with the education received at the University (Fig. 5).

From the data presented in Fig. 5, it is seen that the senior courses and reduced student satisfaction with the volume of knowledge and level of training. This is due to the fact that senior students have already passed professional practices and lack both theoretical and practical training. Teachers have a slightly different idea of the amount of knowledge students receive (Fig. 6).

| Year | Satisfied | Partially Satisfied | Dissatisfied |
|------|-----------|--------------------|-------------|
| 1    | 62.1%     | 58.3%              | 5%          |
| 2    | 46.2%     | 52.4%              | 11.1%       |
| 3    | 35.5%     | 42.3%              | 22.2%       |

Less than half of teachers (42.3%) believe that the amount of knowledge students receive meets modern requirements. At the same time, every third teacher (31.6%) believes that the amount of knowledge obtained partially meets modern requirements, and every fifth (20.9%) - does not agree with this. The results of the survey show that most of the teachers are not fully satisfied with the level of knowledge of students. More than half of the students are not fully satisfied with the quality of the educational process. At the same time, 30.4% of students are partially satisfied with it, and 18.4% hold the opposite opinion. Note that the assessment of teachers is slightly different from that of students: more than a third of respondents (33.8%) are partially satisfied and 12.4% are not satisfied with the quality of the educational process.

By senior courses, students’ satisfaction with the quality of teaching increases. However, it can be stated that 40.6%; 25.6%; 17.0% of students of the relevant courses are not satisfied or partially satisfied with the quality of teaching.

One of the reasons for students’ dissatisfaction with the quality of teaching is the level of professionalism of the staff. The majority of students note compliance with the level of professionalism of the teaching staff (49.6%). Teachers assess the professionalism of the staff of the University slightly higher than students (61.2%).

Reforming the management of the higher education system involves changes in the nature of education, focusing it on "free human development", on creative initiative, independence of students, which involves the formation of individual educational trajectory by students. Thus, it can be stated that in the management of the higher education system is dominated by subject-object relations, where the student remains the object of management.

The predominant forms of classes are, according to students and teachers classroom: 68.8% and 63.7%, respectively, which are carried out under the direct control of the teacher. At the same time, such forms of classes focused on subject-object relations do not aim at the development of creativity and initiative of students and do not consider them as subjects of management.

Of the total number of employers, the theoretical training of University graduates was rated "good" by 11.1% of respondents, more than half (85.7%) - "satisfactory", 3.2% - as "bad". Students and teachers rated the training "good" 54.8% and 42.5% respectively; "satisfactory" (41.4% and 52.3%). A negative rating was given by 3.8% of students and 5.2% of teachers. Analysis of respondents’ answers about practical training of students showed that 63.2% of employers rated "satisfactory", 13.6% - "bad" and 23.3% - "good". Another opinion was expressed by students and teachers. 39.8% of students and 57.3% of teachers gave a good assessment of practical training, respectively. About half of the students (43.2%) rated practical training "satisfactory", a third of the teachers (35.5%) agree with them. At the same time, 17% of students and 7.3% of teachers respectively - "bad". Employers’ responses to the question of their participation in the management of higher education indicate that they are not involved in the management. A small part of the respondents taking part in the
management are members of the state attestation commissions.

**TABLE II. EMPLOYERS’ OPINION ON THEIR PARTICIPATION IN THE MANAGEMENT OF THE EDUCATION SYSTEM, IN % OF THE TOTAL NUMBER OF RESPONDENTS.**

| Control function | State | Regional | Higher school |
|------------------|-------|----------|---------------|
|                  | yes   | no       | yes           | no   | yes | no   |
| Participation in planning of higher education system management | 1.2 | 98,8 | 10 | 0 | 10 | 0 |
| Participation in the organization of higher education system management | 2.2 | 97,8 | 10 | 0 | 10 | 0 |
| Participation in control and analysis of higher education system management | - | 10 | 0 | 2.7 | 97,3 |

The transition to a personality-oriented model of education and technology of developing learning is provided by an officially legalized network of educational institutions of a new type.

**IV. DISCUSSION**

At the same time as the governments of the post-Soviet world carry out reforms aimed at improving the educational system, there is a growing awareness in these countries of the need for civil society institutions, the important role in these transformations.

In today’s world there are dynamic changes that have a significant impact on the sphere of higher education. Each country faces the challenge of transforming higher education in order to bring it into line with new realities. Several measures for its modernization are being implemented in the Russian and Kazakh educational space. But, as it seems to us, much is done spontaneously, unproductively, without involvement of participants of educational process.

Returning to the question of the importance of standardization for the higher education system of post-Soviet countries, it should be pointed out that since the existing “traditions” have shown their failure in the neoliberal economy, there is no alternative to standardization. At the same time, standardization, and this is probably the main thing, was to help in the successful adaptation of foreign University models [8].

In the post-Soviet period, the Russian and Kazakh higher education has become party to all the major areas of international cooperation, which involved hundreds of Russian universities [9, 10].

Despite the work, the studied problem is rather poorly lit, still has not received a comprehensive study such issues as features of academic mobility in the European Union, the Russian Federation and the Asia-Pacific region (CMAR), the legal framework for international cooperation of the Russian higher education in post-Soviet times, the effectiveness of international educational programs and projects with participation of Russian higher education, the place of Russia in the dynamics of international academic mobility, etc. all this shows that the problem, and its actual side, is far from exhausted. In this regard, an important area of research is a comprehensive study of the priority areas of integration processes that took place in Europe, the Russian Federation, the Asia-Pacific region in the field of higher education in the years under study.

International educational cooperation of the national higher school has an established historiographical tradition. The Soviet Union, whose successor is the Russian Federation, initiated a broad system of bilateral and multilateral state relations in the educational sphere, which by the 1970s had the character of a recognized sustainable system of training and retraining of personnel with higher education, postgraduate education, as well as scientific and pedagogical exchange [11].

However, be that as it may, this system of international educational cooperation, established in the last third of the XX century, covered 2/3 of the countries of the world community, i.e. the UN member States [12]. UNESCO and COMECON were the international coordinators of the USSR cooperation in the field of education. The flagship among Universities in such international educational cooperation are recognized, first of all, the Russian University of friendship of peoples, as well as Moscow state University named after M. V. Lomonosov, and Eurasian National University named after Lev Gumilev, Kazakh National University named after al-Farabi, Belarusian state University and many others [13-15].

The Russian education system has opened new channels of international cooperation with all developed countries and international organizations against the background of the preservation of former international relations with the countries of Asia, Africa and Latin America. For 1991-2019 years of educational cooperation has evolved according to the forms, content and extent of which depended, first and foremost, from the socio-economic situation of the country and its ability adequately to Finance their own education system, as well as the current status of political relations with partner countries [16].
Currently, the optimization of management of higher education institutions, improvement of material and technical base of universities, improving the quality of teaching and improving the competitiveness of graduates of domestic universities remain urgent problems, which continue to work on the solution of domestic teachers, scientists and statesmen. And this is not the last role played by the international activities of universities, affecting both the system of higher education, and depending on a few factors that affect the dynamics and trends of this activity.

V. CONCLUSION

The results of the survey showed that the training of specialists in universities is focused mainly on obtaining knowledge, while the effective management of the higher education system should ensure the formation of a professionally competent person who is able to independently and creatively solve professional problems, to realize the personal and social significance of professional activity.

The results also showed the lack of opportunities for students to fully implement the idea of individual educational trajectory, correlating the needs of the individual in choosing the content of training approved by the Ministry of education and science standard of vocational training. And as a result, teachers are not able to meet the requirements of students to the content of training. This once again proves that in the management of the higher education system there is no personal component in determining the content of education.

The main reasons for this are the following:
- lack of experience of teachers in the workplace, which leads to greater academic education;
- insufficient connection of universities with organizations where students could practice, learn to solve practically significant problems;
- orientation of higher education on the theorized approach in education;
- lack of interaction in meeting the requirements of each of the subjects of management of the higher education system.

To solve these problems, it is necessary to practice various forms of obtaining additional qualifications by students, mastering related fields of knowledge, certifying them as specialists in various technologies; to involve enterprises in the management of the higher education system.

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