

THE SOCIAL EFFICIENCY OF THE PUBLIC ADMINISTRATION OF THE HIGHER EDUCATION SYSTEM IN THE REPUBLIC OF KAZAKHSTAN

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Abstract. *This article considers the role and importance of public administration in the higher education system in the Republic of Kazakhstan as the main factor in socio-economic progress necessary to support a competitive research base on a global scale and to disseminate knowledge for the benefit of society. Education and science play an increasingly important role in the development of modern Kazakhstan. The number of years people spend on education is growing steadily, and this phenomenon is associated with the development of a knowledge-based economy. This article discusses development indicators and satisfaction with the public administration system of higher education based on sociological diagnostics. In many aspects, a paradoxical situation has developed regarding the attitudes of Kazakhstani society towards the state of the education system, which is reflected in the desire to provide children (or grandchildren) with a high level of education combined with the very low level of assessment of this education. In this paper, the measurement of indicators of the development of science and education is conducted based on the level of satisfaction, which is considered as an indicator of social quality based on sociological diagnostics. As a result of sociological diagnostics, problematic issues of the development of the higher education system in Kazakhstan are identified.*

Keywords: *education system, sociological diagnostics, public administration, state program.*

Reikšminiai žodžiai: *švietimo sistema, sociologinė diagnostika, viešasis administravimas, valstybinė programa.*

Introduction

The evolution of the higher education system over the past several decades has been characterized by a particular focus on the topic of “efficiency,” defined as the ability to provide the maximum amount of educational services for a given budget. This discourse is gaining momentum at a time when government budgets are increasingly shrinking and, consequently, public investment in areas such as higher education is suffering from a sharp decline in the public resources allocated to it. At the same time, the expectations of citizens regarding the activities of higher education institutions are even higher than in the past (Hazelkorn 2015, 31–32). Societies believe that higher education institutions must educate their students to be great citizens of tomorrow’s world, a world characterized by the need for more sophisticated skills, the interaction between research and socioeconomic development, and a continuous cycle of innovation and transfer of knowledge from academia to external stakeholders. From this point of view, “doing more with less” is now an imperative that characterizes all public sector activities, including funding for higher education institutions. The implementation of one of the first experiments in complex sociological research and social diagnostics in the system of modern public administration of higher education made it possible to: (a) demonstrate the multidimensional nature of social technologies as a field of applied sociological knowledge, a way of implementing state management activities based on their rationalization and operationalization, and a method of state management of higher education institutions at the macro, meso and micro levels; (b) identify general and specific elements in the design and implementation of social technologies; and (c) substantiate the possibilities of the socio-technological approach in combining methods and developing tactics and strategies for transforming social objects in institutional, organizational and group parameters. These aspects contribute to the emergence of new positions in the understanding of theoretical, methodological and praxeological issues of social and technological support for the modern public administration of higher education.

Materials and Methods

There is an extensive array of literature on measuring the performance of educational institutions, including various types of higher education. For detailed reviews, see De Witte and López-Torres (2017, 28–29), Johnes (2004) and Worthington (2001, 6–8). Despite the differences in the methods used for this purpose (i.e., parametric and non-parametric) and in the details of models’ specifications, all existing studies share common approaches to viewing higher education activities as using key resources (human and financial resources, facilities) for the “production” of important outputs such as education (graduates), research (publications) and knowledge transfer (patents, additional businesses, community events, etc.). Many studies have focused on the determinants of effectiveness – that is, looking at those factors which are statistically correlated with measured levels. However, the social effectiveness of this area remains unattended. In this regard, this study is aimed at determining the social effectiveness of the public administration of the higher education system.

The purpose of the study is to substantiate the importance of quantitative and qualitative methods of sociological diagnostics as tools for assessing the effectiveness of public administration

in the higher education system of the Republic of Kazakhstan

Results

The sociological effectiveness of the public administration of higher education in the Republic of Kazakhstan is determined by contradictions between the requirements of modern society that are implemented by state policy in the field of modernization of higher education, the need for the formation and implementation of education quality management systems, and the objective of forming the managerial competence of university leaders focusing on existing sciences. Research and the activities of higher education institutions in the solution of this problem indicate the presence in such activities of a number of the above-mentioned problems caused by the lack of effectiveness of public administration. The aim of this research is to substantiate the importance of quantitative and qualitative methods of sociological diagnostics as tools for assessing the effectiveness of public administration in the higher education system in the Republic of Kazakhstan.

In the course of the study, methods of social diagnostics were carried out to study the opinions and suggested improvements of leaders and specialists in the field of the public administration of the higher education system. To ensure the effective public administration of higher education in the context of the formation of a knowledge economy, it is important to canvass opinion on a number of issues for a comprehensive assessment of the current state of management and the development of specific proposals for its improvement. To determine the volume of selection required to assess the mathematical forecast of the main population of the sociological survey, it is necessary to conduct a sample study and multiply the value of the deviation of the reliability level. In addition, more information is needed regarding the standardized deviation volume. It is necessary to derive a formula that will help to calculate the volume of selection, i.e. (1):

$$(1) \bar{X} \pm Z \frac{\sigma}{\sqrt{n}}$$

where the mean value of selection Z is the value of a standardized, normally distributed random variable corresponding to the integral probability equal to $1 - \alpha / 2$; σ is the standard deviation of the main population; and n is the volume of selection.

The values included according to this formula are equal to half of the interval. This determines the size of the estimation error, determined by the symbol e and the following formula, which arises on the basis of sampling errors:

$$(2) e = Z \frac{\sigma}{\sqrt{n}}$$

Thus, the selection of this questionnaire of social diagnostics consisted of 100 people, selected from among the teaching staff and heads of higher educational institutions in the region. The sample was composed of 43 men and 57 women. To conduct an audit examination of the social diagnostics of the 100 interviewed people, the author created an interval of mathematical expectation of the main set, the reliability level of which was 95%. In consultation with experts and sociologists, the author found a deviation of admissible errors in selection research equal to ± 5 ("deviation" $\pm\%$), and the level of confidence was 95%. As a result of further research, the standard deviation of the main population is around 25. Thus, $e = 5$, $\sigma = 25$ and $Z = 1.96$ (the confidence level is 95%). According to the form of calculating the volume of selection:

$$n = \left(\frac{1,96*25}{5}\right)^2 = 96$$

Accordingly, $n = 96$. Thus, a selection volume equal to 100 was successfully selected and fully met the requirements of mathematical validity.

As a result of a questionnaire survey, it was revealed that the most important life goals, values and ideals of respondents determine their uneven approach to building life plans and affect their future choice of activities. For 29% of respondents, it was important to receive a high salary, taking into account labor and qualifications; for 16%, to achieve a good education and to temporarily work abroad; for 14%, to earn a PhD; for 10%, to achieve a good education and move to a permanent place of residence abroad (currently, there is a predominant trend of youth leakage from Kazakhstan abroad, which is mainly due to the demographic situation, innovative activity, and the “quality” of science and high-tech industries, and furthermore acts as a catalyst for negative trends in these areas); for 9%, to have good health; for 8%, to have the honor and respect of colleagues and others; and for 7%, to achieve a good level of higher education and live in abundance. There was a significant gender imbalance in the answers to the questions regarding important life goals. In percentage terms, the goal of receiving a high salary, taking into account labor and qualifications, was chosen by 15% of men, and having good health was chosen by a majority of women (10.5%). This suggests that life goals between men and women are significantly different

The level of assessment of the state of the higher education system was measured by a questionnaire regarding the satisfaction of respondents with the state of the higher education administration system: 30% of respondents said they were dissatisfied with the state of administration in higher education, 34% found it difficult to answer, only 13% were partially satisfied, and 23% were satisfied.

The dominant goal in the public administration of the higher education system is the quality of education. In this regard, the respondents were asked a number of questions regarding “causes of dissatisfaction or partial satisfaction with the state of administration of the higher education system”, critically evaluating various aspects of the state of administration of the higher education system. Of the total number: 22% of respondents said that the administration of the higher education system had an ill-conceived, unsystematic state policy; 20% said that frequent changes to regulatory acts were introduced in the higher education system; 13% said that there was no close relationship or partnerships of senior management bodies with universities; 12% had experienced unstable and random decision-making; 11% had experienced the adoption of new programmatic planning documents without careful analysis, identification and elimination of the reasons for the failure of previous documents; 10% lamented the over-regulation of financial and economic activities, limiting universities’ autonomy in financial and other matters; 7% were critical of outdated legislation; and 5% highlighted the manifestation of corruption in the state administrative bodies and educational institutions. Despite the measures taken in recent years in the Republic of Kazakhstan to improve the public administration of the higher education system, the outlook for the management of the higher education system looks rather pessimistic. This suggests that, in the public administration of the higher education system, there are a number of problems requiring the improvement of policies and decision-making and the adoption of new programs, plans and regulatory legal acts for the development of the education system, taking into account new global trends in the development of education. This would enable higher education institutions to inde-

pendently regulate financial and business activities, granting them the freedom to resolve financial and other issues.

It transpired that more than half of the respondents (54%) did not feel the support of the state in obtaining higher education, 28% found it difficult to answer, and only 18% answered that the state supported them.

The above data allow us to conclude that the main points of integration into the world of Kazakhstani education involve, first of all, attracting the attention of all students to this process, for which it is necessary to carry out explanatory work regarding ongoing innovations in universities. In addition, it is necessary to constantly carry out work to support students – including via scholarships, allowances, and benefits – since only competent and far-sighted social policy will help to ensure that young people are well-off and able to develop and live with dignity in the present and future. It is necessary for government bodies and non-state structures and foundations working in the field of education and youth policy to ensure regular sociological research, thereby taking into account the views of students. Along with this, the opinions of respondents regarding state support in finding a job were rather pessimistic, with 49% of respondents noting that they did not encounter state support in finding a job in their specialty after graduation (Figure 1).

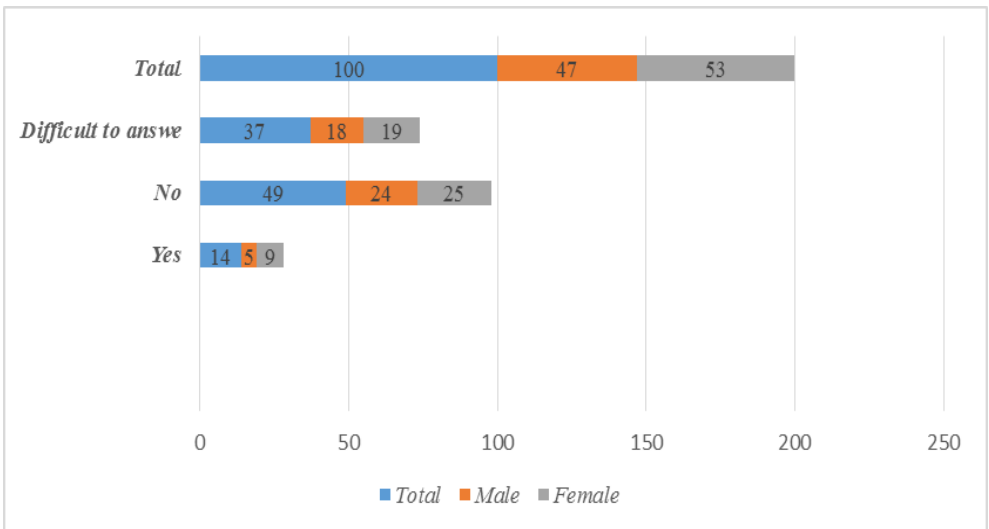


Figure 1. Responses to the question of state support in finding employment in one’s specialty after graduation, %

Source: Compiled by the authors

According to this survey, suggestions are needed in order to solve the problems of graduate employment.

1. Universities should establish close cooperation with business structures, namely by agreeing on internships for their students within these organizations. The theoretical basis provided by a higher educational institution that is then backed up by an abundance of practice is key to the

successful preparation of a competent young specialist.

2. Universities need to develop practices through which the student's place of internship can become their place of work after graduation. For this, it is worthwhile, first of all, to encourage students with good academic performance and those who have proven themselves during internships in particular organizations.

3. To increase the activity of business structures in hiring young specialists, preferential taxation, state grants and support should be introduced.

4. It is necessary to adopt a law on quotas for jobs for those who are first looking for work within their specialty.

5. It would be advisable to encourage the scientific development of students in various Kazakhstani universities and their implementation in production. For example, if the students of a particular university put forward a certain development that improves the work of a certain method of production, then those organizations, enterprises or companies that undertake to implement this idea and achieve positive results should also be provided with certain preferential conditions in the tax sphere. Moreover, students who have developed one or more ideas of this nature should be provided with work – either at the enterprise where their innovation is operating or at the company that was involved in the financial support of this project. This proposal should also be consolidated at the legislative level by adopting an appropriate regulatory act. Therefore, nothing can be fully realized without the active participation of universities, on the one hand, and government bodies and business structures on the other. At the same time, 44% of respondents supported requirements for working in higher education institutions or scientific organizations for at least three years after the completion of training, 30% found this difficult to answer, and 26% did not support these requirements for working. Respondents were asked whether they supported this measure and its expansion to include state bodies and national companies (Figure 2).

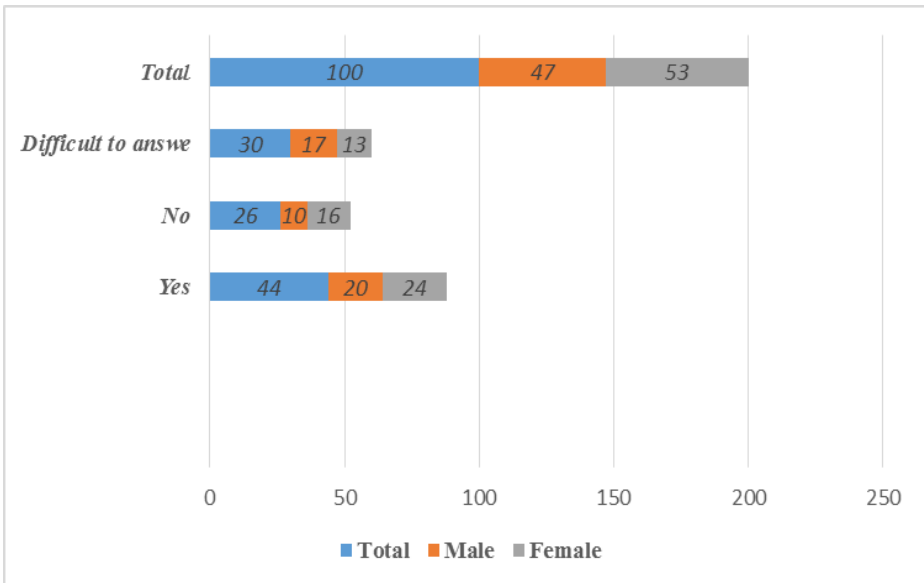


Figure 2. Support for the requirement for citizens studying on the basis of the state educational order to work at least 3 years, %
 Source: Compiled by the authors

The answers to the question posed to the respondents regarding state support in solving the problem of housing for young specialists after graduation are shown in Figure 3.

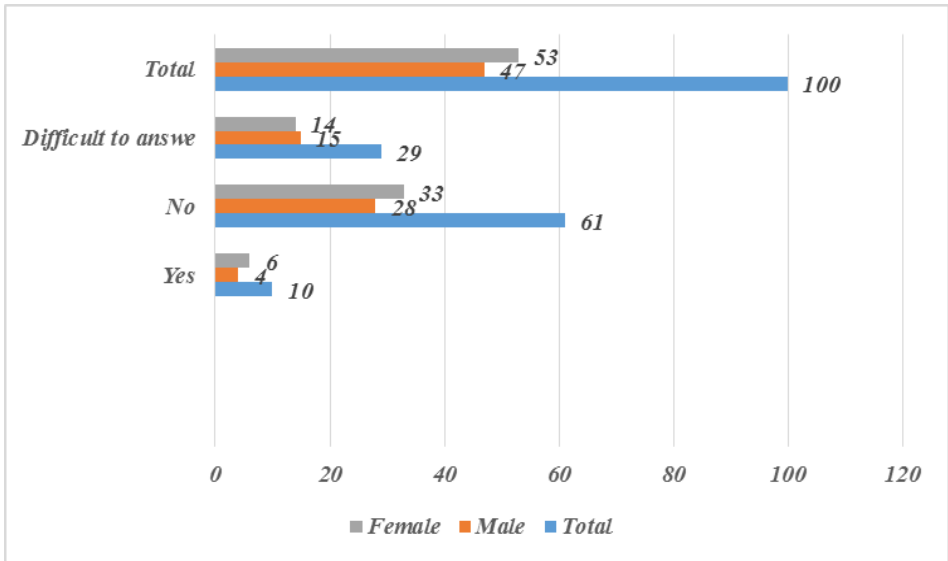


Figure 3. Opinions regarding state support in solving the housing problem of young professionals after graduation, %
 Source: Compiled by the authors

The analysis of respondents' answers regarding support for the reforms carried out by the state in the field of higher education showed that 44% of respondents partially supported them, 27% found it difficult to answer, 19% did not support ongoing reforms, and only 10% supported the reforms carried out in the higher education system. Based on this survey, the author suggests that the reforms carried out by the state in the field of higher education are overall negative in character (Figure 4).

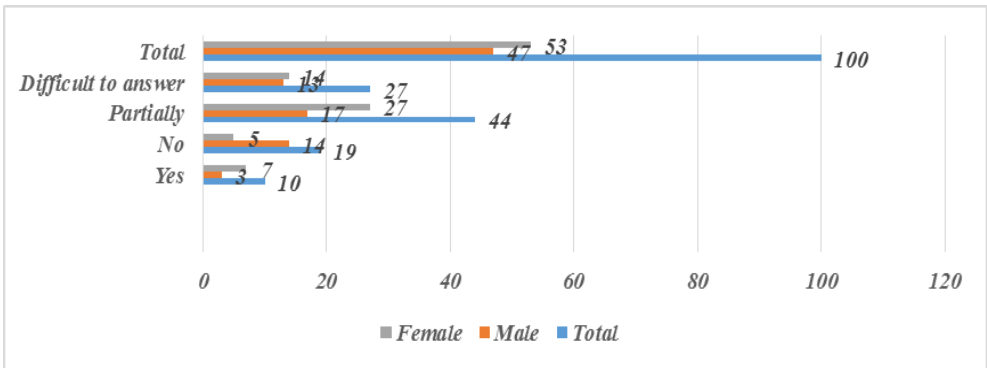


Figure 4. Respondents' support for reforms carried out by the state in higher education, %
Source: Compiled by the authors

Education, as a social sphere in which a significant part of the population is included, is most exposed to corruption risks. According to Transparency International's Global Corruption Barometer (Corruption Perception Index), 55% of respondents said that Kazakhstan is most corrupt in the law enforcement (66%) and legal/judicial (63%) systems. The results of national monitoring carried out by the Agency of the Republic of Kazakhstan for Civil Service Affairs and Anti-Corruption also put education in the top 3 areas most susceptible to corruption. Among 167 complaints about higher education received by the Ministry, 15% contained information about the manifestation of corruption in universities. Kazinform (2015, 1) and the Ministry of Education and Science of the Republic of Kazakhstan point out that corruption in universities is manifested mainly upon admission (Kazinform, 2015, 2)

As can be seen from the data under analysis, 37% of respondents rated the effectiveness of the public administration of the higher education system as insufficiently effective, 25% found it difficult to answer, 24% considered it ineffective, and only 14% replied that the existing public administration system of higher education was effective. It should be noted that when conducting scientific research evaluating the effectiveness of public administration, one of the research methods is sociological surveys, which, in contrast to statistical studies, provide transparent data. Analyzing the responses assessing the effectiveness of the public administration of the higher education system, 61% of respondents supplied a negative answer. During the questionnaire, the respondents were also asked a number of questions that would help to reveal the measures that need to be taken in this field.

In addition, the questionnaire included a number of questions on the implementation of academic mobility and the places of the universities of the Republic of Kazakhstan in international and national rankings. When asked about the degree to which academic mobility was implemented in their university, the majority of respondents rated it satisfactory (31%), 56% rated it positively, and 17% rated it unsatisfactory.

Higher education is becoming a separate economic sector with its own potential. GRON for 2016–2019 aims to increase the share of international students in higher education to 4%. Over the past year alone, the number of international students in Kazakhstani universities has increased by a factor of 1.6. In 2018, their number amounted to 21,727, or 4% of the total amount,

which indicates the achievement of the GRNR indicator for 2016–2019 (Fig. 2.1.59). The share of international students in Kazakhstan is comparable with that of OECD countries such as Lithuania (4.1%), Israel (4%) and Norway (3.9%), and is ahead of Poland (3.4%), Slovenia (3.3%), Spain (2.7%), South Korea (1.9%), Turkey (1.3%), Chile (0.4%) and Mexico (0.3%). In general, universities and educational consortia around the world are struggling to attract international students. The appearance in the early 2000s of international university rankings made it possible to compare universities from different countries, which marked the beginning of an era of global competition. Over the past two decades, the number of international students at universities around the world has more than doubled – from 2 million in 1998 to 5 million in 2016 (Kennedy 2018; OECD, n.d.).

More than half of international students in Kazakhstan come from CIS countries. The distribution of international students by country of arrival demonstrates the popularity of Kazakhstani universities among citizens of Uzbekistan (9,500), India (3,717), Turkmenistan (2,615), Russia (1,273) and China (1,240). According to the forecasts of the Center for International Programs, by 2025 the number of international students in Kazakhstan will increase to 50,000 (Bnews.kz 2018; UNESCO Institute for Statistics, CC MNE RK).

Kazakhstan is among the top 10 countries in the export of students after China, India, Germany, South Korea and France. Countries leading in student exports are not in a position to attract an equal number of international students. Only two countries manage to attract more international students – France (+154,600) and Germany (+125,500) (Table 2.1.18). This result is a consequence of the presence in these countries of a unified state approach to the development of higher education. Thus, the French government in November 2018 announced the strategic goal of attracting 500,000 international students by 2027, while Germany has already exceeded its long-term goal of attracting 350,000 international students by 2020, three years ahead of schedule (Inc. 2.1.12) (Baker 2016). Based on the experience of countries with attractive higher education systems, Kazakhstan also needs to develop its own vision/strategy in the field of internationalization of higher education. As to the question of whether they tracked the places of universities in Kazakhstan in national and international ratings, 93% of respondents answered yes. Of these, 22% did so constantly, 33% sometimes and 38% not regularly.

Based on the foregoing, the question of which key indicators most interested respondents was asked. Per the survey, 36% of respondents were interested in the scientific reputation of the university, which plays an important role in the formation of the knowledge economy. In other indicators, the leading position was taken by the reputation of the university among employers (27%), followed by the ratio of teachers to students (16%), the share of foreign teachers (13%), scientific citation (6%), and the share of international students (2%).

Countries use world university ranking systems as tools for assessing the global competitiveness of universities. Most governments use university ratings to make strategic decisions at the national level. For example, when launching the national scholarship program Science Without Borders, the goal of which was to send 100,000 students and researchers in the STEM specialties to the world's best universities, Brazil determined the leading universities in the world based on their ranking positions in QS World University Rankings (QS WUR) and Times Higher Education Rankings. In addition, world university rankings affect the internationalization of education, as international students take into account positions in ranking systems when choosing a potential university (Luxbacher 2013, 2–4; Byrne 2013).

For the first time, the number of Kazakhstani universities listed in the QS WUR ranking has increased to 10. Among the Kazakhstani universities listed for the first time in the top 220 best

universities in the world, Al-Farabi Kazakh National University rapidly broke through to 220th place, an increase of 16 positions. Significant growth was also demonstrated by M. Auezov South Kazakhstan State University, which rose from the position of 501–550 to 480. For the first time, the Kazakh National Agrarian University (rank 651–700) and the Karaganda State Technical University (rank 751–800) were also included in the ranking.

The QS Emerging Europe and Central Asia (QS EECA) University Rankings rating is a projection of the QS WUR on universities from developing countries in Europe and Central Asia. In other words, the ranking ranks universities exclusively in this region (QS Top Universities 2018a). In the 2018 ranking, universities from 24 countries are represented. The purpose of the ranking is to track the performance of universities in the developing countries of Europe and Central Asia.

The evaluation of universities in the QS EECA University Rankings is carried out on the basis of 9 indicators. The highest weight is given to the academic reputation of the university (30%) and its reputation among employers (20%). The ratio of students to teaching staff, the number of publications per teacher and international networking in research are estimated at 10% for each indicator. Internet positioning, the percentage of teaching staff with a PhD degree and the number of citations compose 5% of the weighting, while the presence of international teaching staff and students accounts for 2.5%.

In total, the QS EECA ranking includes 301 universities, and Kazakhstan is represented by 20 institutions (Russia 87, Turkey 45, Ukraine 18, Belarus 4, Estonia 3, and Kyrgyzstan 1). In 2018, the number of Kazakhstani universities decreased by two units compared to 2017 (22 universities in 2017, 18 in 2016, 14 in 2015). The two universities that left the rating were the Innovative University of Eurasia and the Zhangir Khan West Kazakhstan Agrarian and Technical University.

In 2018, the British rating agency QS ranked the higher education systems of countries for the second time in the QS Higher Education System Strength Rankings. This rating includes 50 higher education systems. The rating methodology includes indicators such as: (1) the strength of the higher education system; (2) access to higher education; (3) the position of the country's leading university; and (4) the economic context (See: QS Top Universities 2018b).

Kazakhstan entered the top 40 countries with the best systems of higher education, taking 37th place. This was an increase of three positions compared to the results of the 2016 rating. The country scored its highest number of points, 51.6, in indicator 3: "Positioning of the country's leading university." According to indicators 1, 2 and 4, Kazakhstan was assigned 37.6, 35 and 45.7 points, respectively. The higher education system of Kazakhstan, according to the British agency QS, is ahead of countries such as the Czech Republic, Turkey, Poland and Estonia (QS Top Universities 2018b).

The achievements of national universities were the results of systematic work in educational, scientific, international and industrial activities. For example, at the Al-Farabi Kazakh National University, training seminars were held to study the experience of leading world universities in the Times Higher Education ranking and on the problems of entering Kazakhstani universities with the participation of Phil Baty, the rating's editor.

In Kazakhstan, the topic of dual education, which involves the direct participation of enterprises in vocational education, has recently become relevant. In the course of the questionnaire, the question was asked regarding the measures necessary to implement dual education in universities. In response: 39% of respondents said that it is necessary to develop modern programs and methods of dual education, which requires the development of an educational program taking into account labor market requirements; 31% identified the strengthening of the relationship between

the state, universities and business in the implementation of dual training; 14% suggested creating an appropriate regulatory framework, because problem points arose during the implementation of the dual form of training in practice in organizations that concluded agreements with educational institutions, and these problem points were not sufficiently regulated by the norms of the current legislation of the Republic of Kazakhstan; finally, 10% of the respondents chose the option of improving the qualifications of scientific and pedagogical personnel, which is important for the implementation of dual training. These results are shown in Figure 5.

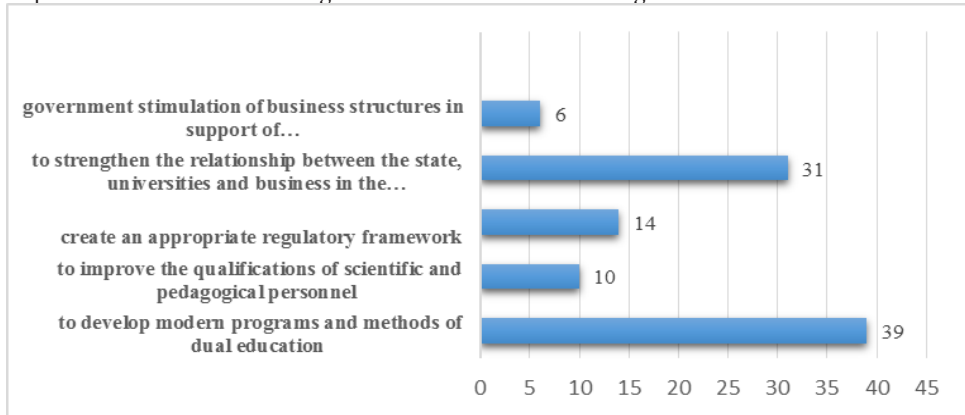


Figure 5. Respondents' views on the measures necessary to implement dual education in universities, %

Source: Compiled by the authors

Dual training has an established regulatory framework with an emphasis on financing the activities of universities in the organization of industrial training and professional practice. In previous years, the concepts and competencies of stakeholders of dual training (including “dual training,” “industrial training,” and “mentor”) were clarified in the Law of the Republic of Kazakhstan “On Education.” These standards were supported by the relevant provisions of the GOSO, the Rules for the organization of dual training, and the model contract for dual training. In the framework of the credit-per-capita standard, the costs of industrial and professional practice, in particular the remuneration of tutors, were taken into account. In the near future, it is planned to improve the wage formula for mentors by providing several options for reimbursing their labor to take into account the characteristics of the activities of educational institutions.

Based on the data of the information-analytical center, a picture is formed of the results of a general assessment of the autonomy of state higher education institutions in Kazakhstan. According to this, it can be said that Kazakhstan is lagging behind the international trend of replacing centralized state control and regulating forms of governance that emphasize the importance of politics, setting national goals, decentralized institutional management and the use of financial policies (e.g., financing productivity) in order to guarantee the timely response of the institutions to the priorities of state policy (Ministry of Education and Science of the Republic of Kazakhstan 2018, 11–12).

Obviously, academic and financial autonomy covers those areas in which Kazakhstan faces

the greatest challenges. The rationale for providing greater autonomy to educational institutions is to improve the responses of higher education institutions to meeting the needs of the country and society. This should lead to the development of more innovative potential and increased efficiency. Continuing its transition from control to management strategy, the state can also stimulate the development of a culture of productivity.

Based on the foregoing, respondents were asked to select the most problematic areas for achieving autonomy. According to the respondents: 45% chose the budget/financial area, which suggests that Kazakhstani universities are not yet ready for financial autonomy; while 36% of respondents said that one of the problem areas in achieving autonomy was the regulatory framework. Currently, there is a process underway of granting autonomy to higher education institutions of the Republic of Kazakhstan, but specific changes and additions to the normative legal acts have not yet been made. This suggests that, in the course of achieving autonomy, Kazakhstani universities have faced the problem of the improvement of regulatory legal acts.

Updating the content of higher education is characterized by a fundamental restructuring of approaches to quality management in universities. The main directions for updating this sphere are enshrined in the State Program for the Development of Education and Science for 2016–2019. Among these directions are: expanding the academic, managerial and financial independence of universities to effectively respond to market demands and increase competitiveness domestically and internationally; the institutional, programmatic and personnel internationalization of universities in order to maintain the demand for the national higher education system and to turn it into an educational hub in Central Asia; training for priority sectors of the state program of industrial and innovative development; phased transition to English language instruction; improving the content and infrastructure of online university education; and the introduction of student startups. In place of conservative norms, universities have received long-awaited autonomy.

Discussion

In general, we can talk about efficiency or inefficiency, the optimality or suboptimality of public the administration system of higher education; or, rather, the process of management in general and the process of making a management decision. Therefore, management that combines methodological certainty and compliance with the management system and mechanism will be successful. The rationality of the management process is facilitated by the principles of the purposeful instruction of interactions, the timeliness of management decisions, and the saving of time. The principles of continuity, technology and rhythmicity are also connected with these principles.

In early 2020, most countries in the world experienced the shock of the COVID-19 pandemic. Lockdown affected all spheres of the economy, turned the usual way of life upside down, and taught everyone, without exception, to live in a new way. Surprisingly, many spheres of personal, social and professional life have not only been able to resist the new reality, but also to adapt to it. In this way, “collective consciousness” and the efficiency of decision-making became highly important.

The field of higher education can be viewed as one of those in which the pandemic had the greatest impact on a global scale. Certain problems have arisen here, and these issues will be discussed further as a result of this survey.

All of the measures and activities that have been undertaken by the global community (national governments, international organizations and associations, universities themselves) to sup-

port the higher education system will obviously have an effect, which remains to be evaluated. Today, we can analyze what was done, how, and by whom, so that the world of higher education does not become radically different and can strengthen itself in the context of a global crisis.

At the international level in the higher education sector, the COVID-19 pandemic has in general affected the internationalization of education, research, legislation, the organization of training, and funding. All of these trends do not have positive effects on the development of higher educational programs. Due to the high sensitivity of the sphere of higher education to the changes that have occurred at the international, national and institutional levels, an appropriate response has begun to form, the specifics of which must be considered in more detail in order to provide the necessary information to overcome the negative consequences in the future.

To attract international students, universities organize a large number of online events and webinars/fairs for applicants. Universities emphasize the importance of using online formats for communication with applicants. For example, a decrease in academic mobility especially affects master's programs, and the statistics from news portals and Study-In portals in the UK, Germany, and Estonia indicate that the largest number of international students enroll in master's programs in English. Obviously, in the future universities together with national ministries of education will need to revise internationalization strategies and take into account the experience that they have already gained when developing such strategies in the event of their current absence.

The sphere of virtual mobility and the development of new platforms for cooperation with partner universities during the pandemic turned out to be in a better position in relation to internationalization. Many universities have moved their partnerships to the online format, and some have begun to search for new forms of interaction in the digital environment to maintain constant communication, solve joint problems and issues, and find optimal solutions for all parties.

According to the results of this survey, the measures necessary for the government to overcome the crisis in the higher education system during the COVID-19 pandemic also involve providing assistance to students from socially unprotected segments of the population (help with the internet, providing laptops, etc.). These measures also include developing a mechanism for a phased transition to the traditional training format, improving the mechanisms of distance cooperation between partner universities, and taking into account the shortcomings revealed during lockdowns.

During lockdowns, the activities of the Ministries of Education consisted of providing recommendations to universities for organizing online learning and developing relevant regulations. The StudyIn portal, which was developed with the support of national ministries of education and ministries of foreign affairs to attract international students, also announced changes in the admission procedure for international students. In connection with this survey, respondents highly appreciated the work of the Ministry of Education and Science of the Republic of Kazakhstan and universities in organizing the educational process during a pandemic.

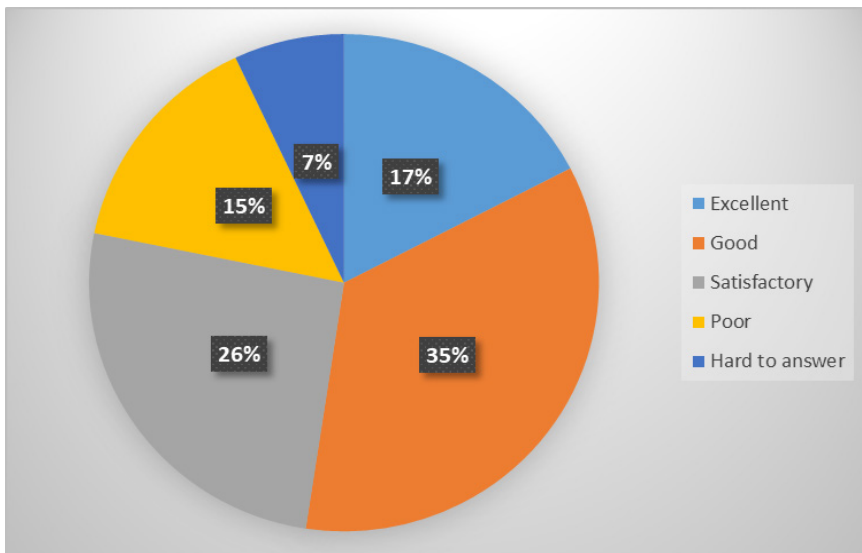


Figure 6. respondents' views on the work of the Republic of Kazakhstan's Ministry of Education and Science and universities on the organization of the educational process during the pandemic, %

Source: Compiled by the authors

However, among the uninformative portals that did not promptly update the information sits the Ministry of Education and Science of the Republic of Kazakhstan. The results of the survey in this study revealed: the majority of universities in the country switched to the online format of education, which influenced the organization of communication between students and teachers, but a small number of universities did not have adequate infrastructure for organizing this communication; universities expect a decrease in the number of students entering universities (both international and domestic), but the number of international students will decrease to a greater extent; most universities, when switching to the online format, consulted with the ministries of education and science, which provided information support, but most universities received no state financial support; the impact of the pandemic on the partnership of universities is ambiguous, as some partnerships have weakened but in some cases ties have strengthened, and universities were able to find new formats of interaction such as virtual mobility of students and teachers, exchange of materials for online teaching, etc.; and in the context of the pandemic, most universities completely transferred teaching online. At the same time, representatives of universities noted the following challenges of online education: insufficient infrastructure of universities and in students' homes to conduct fully-fledged online education; insufficient competence of teachers to conduct online learning; inability to conduct some classes online (for example, medicine, chemical technology, etc.); difficulties in the organization of online exams; and suspended academic exchanges, international scientific conferences, and scientific projects, both national and international, which could not be completed on time.

Conclusion

In general, the results of sociological efficiency showed a low subjective assessment of the state of the higher education system in the country. One of the most important results of our study is that the level of satisfaction with management is for the most part positively associated with the effective management of the education system. The level of education in the country has a special role to play in assessing the state of the education system. The growth of the supply of labor by highly educated workers and inflated expectations of a future career determine a person's perception of their social environment, which directly affects low subjective assessments of the state of the education system for those who have completed higher (tertiary) education.

Generally, a lack of satisfaction with management may be the best indicator of public discontent with the modern world. The low public assessment of the quality of the higher education system serves as a basis for justifying reforms in this area, so in the discourse of reform, improving the quality of education is associated with optimization.

From analyzing the results of sociological diagnostics of the public administration of the higher education system at the stage of formation of the knowledge economy, it is clear that it is necessary:

- to improve the organizational foundations of the public administration of the higher education system, as increasing the quality requirements for higher education necessitates improving the strategy of the public administration of educational processes;
- to develop a strategy for the internationalization of higher education in the Republic of Kazakhstan, as higher education needs to meet the new challenges of the rapidly changing global situation;
- to develop a brand book office for each university and in the higher education system of the Republic of Kazakhstan;
- to create a favorable visa environment for foreign citizens;
- to improve the position of Kazakh universities in the QS and Times Higher Education ratings by increasing their potential and supporting top managers and faculty staff;
- to optimize the administrative, regulatory and legal mechanisms, to expand the participation of society in the management of the higher education system, and to further develop the academic freedom and autonomy of universities with the preservation of state interaction and state support in various forms;
- to establish close cooperation between the state, business structures and higher educational institutions. It is necessary to directly attract the competencies and investments of business structures to create a qualitatively new environment in order to obtain professional higher education that meets modern requirements.

4. Increasing the competitiveness of the country's universities both domestically and internationally becomes especially relevant in the context of the formation of a knowledge economy. Thus, the state will receive a competitive market for educational services, businesses will be able to influence the quality of specialist training, and educational institutions will be able to attract additional funding and implement innovative educational programs of higher education. In order to achieve this, it is necessary to:

- make all possible efforts to ensure that every citizen has the right to receive higher education by organizing assistance to students from socially disadvantaged groups so that they can continue their studies in a distance-learning format with the provision of opportunities;

- produce an overview of higher education policies, taking into account the measures taken during the pandemic;
- develop a strategy of online exit and transfer to offline for universities, mechanisms for cooperation between national universities, and mechanisms for international cooperation;
- ensure that higher education institutions continue to develop effective methods of online learning to ensure quality and equity in education, including developing training for students and teachers on the use of digital learning tools;
- mandate universities to document all changes in the organization of the learning process that occurred during the pandemic in order to use their experience and mistakes in organizing online education and revise and update the system of training and teaching.

References

1. Baker, A. 2016. "Ireland sets €2bn goal for international education industry by 2020." *The Pie News*, October 10, 2016. Available at <http://thepienews.com/news/ireland-sets-e2bn-goal-for-international-education-industry-by-2020/>
2. Birchall, C. 2015. "Data-gov-in-a-box: Delimiting transparency." *European Journal of Social Theory* 18(2): 185–202. <https://doi.org/10.1177/1368431014555259>
3. Brezis, E. S., and Hellier, J. 2018. "Social mobility at the top and the higher education system." *European Journal of Political Economy* 52:36–54. <https://doi.org/10.1016/j.ejpoleco.2017.04.005>
4. Bryman, A. 2012. *Social research methods*. 4th ed. Oxford, UK: Oxford University Press.
5. Byrne, D. 2013. "QS University Rankings: An Explainer." *The Guardian*, September 10, 2013. Available at <https://www.theguardian.com/higher-education-network/blog/2013/sep/10/qs-university-rankings-methodology-criteria>
- De Witte, K., & López-Torres, L. 2017. "Efficiency in education: A review of literature and a way forward." *Journal of the Operational Research Society* 68:339–363. <https://doi.org/10.1057/jors.2015.92>
6. DiMaggio, P., and Powell, W. 2003. "The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields (1983)." In *The sociology of organizations: Classic, contemporary and critical readings*, edited by M. Handel, 243–253. Thousand Oaks, CA: SAGE.
7. Johnes, J. 2004. "16 efficiency measurement." In *International Handbook on the Economics of Education*, edited by G. Johnes and J. Hohnes, 613–742. Cheltenham: Edward Elgar. <https://doi.org/10.4337/9781845421694.00021>
8. Galaktionov, V. 2004. "International practice of mutual recognition of documents on education and professional qualifications." *Higher Education in Russia*, No. 2, 35–41.
9. Grimmelikhuijsen, S., and Meijer, A. 2012. "Effects of transparency on the perceived trustworthiness of a government organization: Evidence from an online experiment." *Journal of Public Administration Research and Theory* 24: 137–157.
10. Handel, M. 2003. *The sociology of organizations: Classic, contemporary and critical readings*. Thousand Oaks, CA: SAGE.
11. Hazelkorn, E. 2015. *Rankings and the reshaping of higher education: The battle for world-class excellence*. 2nd ed. London: Palgrave Macmillan. <https://doi.org/10.1057/9780230306394>
12. Kennedy, K. 2018. "International tertiary numbers up 200% in two decades – OECD." *The Pie News*, September 18, 2018. Available at <https://thepienews.com/news/international-tertiary-student-numbers-up-200-since-1998-oecd/>

13. Law-Decree of the President of the Republic of Kazakhstan No. 874 “On approval of the State program of industrial and innovative development of the Republic of Kazakhstan for 2015–2019” (2014 August 1). Available at <http://adilet.zan.kz/rus/docs/U1400000874>
14. Luxbacker, G. 2013. “World university rankings: how much influence do they really have?” *The Guardian*, September 10, 2013. Available at <https://www.theguardian.com/higher-education-network/blog/2013/sep/10/university-rankings-influence-government-policy>
15. Thiel, M. 2020. “Governing indifference in social performance reporting: Implications for responsible management education.” *The International Journal of Management Education* 18(1): 100331. <https://doi.org/10.1016/j.ijme.2019.100331>
16. Ministry of Education and Science of the Republic of Kazakhstan. 2018. *National Report on the State and Development of the Education System of the Republic of Kazakhstan for the Year 2017*. Astana: IAC JSC. Available at https://iac.kz/wp-content/uploads/2022/02/nacjonalnyj-doklad-po-itogam-2017_eng.pdf
17. OECD. n.d. “Share of international students and all students by field.” OECD.Stat. Available at https://stats.oecd.org/Index.aspx?DataSetCode=EAG_ENRL_MOBILES_FIELDS
18. QS Top Universities. 2018a. “QS EECA University rankings 2019.” Available at <https://www.topuniversities.com/universityrankings/eeca-rankings/2019>
19. QS Top Universities. 2018b. “QS System Strength Rankings.” Available at <https://www.topuniversities.com/system-strength-rankings/2018>
20. Shattock, M. 2000. “Strategic management in European universities in an age of increasing institutional self-reliance.” *Tertiary Education & Management* 6:93–104. <https://doi.org/10.1023/A:1009665119955>
21. Shattock, M. 2010. *Managing successful universities*. Maidenhead: McGraw-Hill Education
22. <https://doi.org/10.1111/j.1468-2273.2012.00518.x>
23. UNDP. 2018. *Human Development Indicators and Indices: 2018 Statistical Update*. Available at <http://www.hdr.undp.org/en/2018update>
24. Worthington, A. C. 2001. “An empirical survey of frontier efficiency measurement techniques in education.” *Education Economics*, 9, 245–268. <http://dx.doi.org/10.1080/09645290110086126>
25. World Economic Forum. 2019. *Annual Meeting 2019: Overview*. Available at http://www3.weforum.org/docs/WEF_AM19_Meeting_Overview.pdf

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SOCIALINIS KAZACHSTANO RESPUBLIKOS VALSTYBINĖS AUKŠTOJO MOKSLO SISTEMOS EFEKTYVUMAS

Anotacija. Straipsnyje analizuojama Kazachstano Respublikos valstybinės aukštojo mokslo sistemos vaidmuo ir svarba. Aukštasis mokslas yra pagrindinis socialinės ir ekonominės pažangos veiksnys, kurį būtina palaikyti pasauliniu mastu – tobulinti konkurencingą mokslinių tyrimų bazę ir skleisti žinias visuomenės pažangos labui. Švietimas ir mokslas yra vis reikšmingesnis šiuolaikinio Kazachstano raidoje. Žmonės švietimo sistemoje praleidžia daug metų ir tų metų skaičius nuolat auga. Nuolatinio mokymosi reiškinys siejamas su žiniomis grįstos ekonomikos plėtra. Straipsnyje aptariami sociologine diagnostika grįsti aukštojo mokslo raidos rodikliai ir pasitenkinimas valstybine aukštojo mokslo sistema. Kazachstano visuomenėje susidarė paradoksali situacija: visuomenės požiūris į švietimo sistemos būklę atsispindi atotrūkyje tarp labai žemo išsilavinimo vertinimo lygio ir noro suteikti savo vaikams (ar anūkams) aukštesnio lygio išsilavinimą. Tyrime, remiantis sociologine

diagnostika, buvo taikomi mokslo ir švietimo raidos rodikliai, pagrįsti pasitenkinimo lygiu, laikomu pagrindiniu socialinės kokybės rodikliu. Pasitelkus sociologinės diagnostikos metodą buvo nustatytos probleminės Kazachstano aukštojo mokslo sistemos plėtos problemos.

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