

“DEVELOPMENT OF THE HIGHER EDUCATION SYSTEM AND IMPROVEMENT OF UNIVERSITY ACTIVITIES (THE CASE OF THE NATIONAL UNIVERSITY OF UZBEKISTAN)”

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Annotation: This article analyzes the work carried out by the National University of Uzbekistan to develop the higher education system and improve the activities of universities, as well as to correctly define the place, objectives, and development strategy of universities in the field of education with the goal of achieving high results in the education market and inclusion in higher education rankings.

Keywords: higher education, ranking, educational services market, universities, international ranking organizations.

Annotatsiya: Ushbu maqolada oliy ta’lim tizimini rivojlantirishga va universitetlar faoliyatini takomillashtirishda, ta’lim bozorida yuqori natijalarga erishish uchun universitetlar ta’limdagi o’rni, vazifasini va rivojlanish strategiyasini to’g’ri tanlashida O‘zbekiston Milliy Universitetida oliy ta’lim reytinglariga kirish uchun olib borilgan ishlar tahlil etiladi.

Kalit so‘zlar: oliy ta’lim, reyting, ta’lim xizmatlari bozori, universitetlar, xalqaro reyting tashkilotlari

Аннотация: В данной статье анализируется работа, проводимая Национальным университетом Узбекистана по развитию системы высшего образования и совершенствованию деятельности университетов, по правильному определению места, задач и стратегии развития университетов в сфере образования с целью достижения высоких результатов на рынке образования и попадания в рейтинги высшего образования.

Ключевые слова: высшее образование, рейтинг, рынок образовательных услуг, университеты, международные рейтинговые организации.

Introduction

The parties directly interested in the development of university activities are consumers who want to get an education. This group of consumers includes applicants, students of additional education programs, and employers. Consumers' requirements for the quality of university education are constantly changing. On the one hand, there is a high demand for higher education institutions with a high quality of education and a transparent, classical education system. Thus, the interest in educational programs developed for the study of certain disciplines at various universities, distance and shortened programs, including programs designed for a second specialization, adapted to the growing professional readiness of various segments of the population of continuing education, is growing.

The formation of new universities is considered a response of higher education to the needs of society. Under the influence of this educational services market, the differentiation of the type and quality of university education is a natural process, and in order to achieve high results in the higher education services market, universities must correctly choose their place, mission and development strategy in education. Therefore, it is necessary to analyze data on the positions of local higher education institutions in national and international rating indicators.

As the subject of the ongoing research work is aimed at increasing the position of local higher education institutions in international rating indicators, the results achieved by local higher education institutions in this area were analyzed below.

Analysis of relevant literature

The scientific, theoretical and methodological foundations of improving the quality of higher education services, ensuring the inclusion of higher education institutions among prestigious universities in international rankings, and strengthening their academic independence are the work of foreign scholars T. Schultz, G. Becker, F. Mizikasi, E. Hustad, D. Hopkins, B.J. Colin, M. Tanaka¹ and others have studied it.

Methodology

The study employed systematic analysis, historicity and logical reasoning, induction and deduction, analysis and synthesis, selective and comparative research, comparative evaluation, monographic analysis, and grouping methods.

Analysis and Results

In accordance with the Concept for the Development of the Higher Education System of the Republic of Uzbekistan until 2030, at least 10 higher education institutions in the country are planned to be included in the list of the top 1,000 universities of internationally recognized organizations (Quacquarelli Symonds World University Rankings, Times Higher Education, or Academic Ranking of World Universities). This includes listing the National University of Uzbekistan and Samarkand State University among the top 500 higher education institutions² the task has been set, and in recent years, the National University of Uzbekistan has been prioritizing measures aimed at increasing its position in the “QS – World University Rankings” rating system. As a result, according to the results of the 2023 rating assessment, “Uzbek National University of Uzbekistan took a place among the TOP-500 higher education institutions in 4 subjects (modern languages, mathematics, physics and astronomy, environment). In particular, according to the results of the 2022 rating assessment, Uzbek National University of Uzbekistan took 451-500 places in the field of mathematics, and in 2023, the university’s performance in this area increased by 100 places.”³

Below we will consider the participation of the National University of Uzbekistan in international rankings, the experience gained by the university in this regard, and the methodology it has developed. In addition to the THE and QS international rankings, the

¹Schultz T.W. Investment in Education: Equity-Efficiency Quandary. –Chicago: University of Chicago Press, 1972. –P. 304; Backer G. The Human Capital.Chicago. 1964. –P. 285.; Mizikaci, F., 2006. A systems approach to program evaluation model for quality in higher education. Quality Assurance in Education, 14(1), pp.37-53; Hustad, E. and Arntzen, A.A.B., 2013. Facilitating teaching and learning capabilities in social learning management systems: Challenges, issues, and implications for design. Journal of Integrated Design and Process Science, 17(1), pp.17-35.; Hopkins D. Improving the Quality of Education for AllA Handbook of Staff Development Activities. 1st Edition. Published July 26, 2002 by Routledge. 144 P.; Colin B.J., Charles H. Improving Quality in Education. 1st Edition. Published December 2, 1999 by Routledge, 172 P; Tanaka M. Student Engagement and Quality Assurance in Higher Education; International Collaborations for the Enhancement of Learning. Published January 18, 2019 by Routledge, 192 P

² Ўзбекистон Республикаси Президентининг “Ўзбекистон Республикаси Олий таълим тизимини 2030 йилгача ривожлантириш концепциясини тасдиқлаш тўғрисида”ги ПФ-5847-сон фармони, 08.10.2019 й. <https://lex.uz/docs/4545884>

³ Ўзбекистондаги 2 та университет дунёнинг ТОП-500 талик ОТМлари рейтингига киритилди. <https://daryo.uz/k/2023/03/23/ozbekistondagi-2-ta-universitet-dunyoning-top-500-talik-otmlari-reytingiga-kiritildi>

university participated in a number of international rankings, such as the GreenMetric World University Ranking (354+) (Global Ranking of Green Universities), WURI Ranking (50+), i.e. the World University Ranking for "Best Innovative Projects", Round University Ranking, and Multi Ranking, and showed good results.

Participation in international rankings is not a simple process, but is based on many years of results, indicators and criteria. The biggest challenge for participating universities is to thoroughly study the methodology of rating agencies, analyze the results after they are announced, and implement a systematic and purposeful strategic program to improve indicators. Because the participation of universities in international rankings depends not only on the academic potential of the institution, but also on the economic situation of the country in the region. It should be noted that, although participation in world rankings does not pose any difficulties for European countries, it is inevitable that some disadvantages will be noticeable for Central Asia and the former Soviet Union countries. First of all, the fact that the language of competition for world scientists is English is clearly visible in the scientific reputation indicator. In the countries of the former Soviet Union, most scientific publications are in Russian, and the requirements for them are completely different from the requirements for journals indexed in the Scopus database. The establishment of a department for participation in international rankings at the National University has had a positive effect in achieving better results in this area than other universities. Because this department regularly organizes seminars and trainings on topics such as analyzing the publication rate of university professors and teachers and their publications in quality journals, publishing articles for young teachers and doctoral students, selecting journals and submitting articles to journals. Initially, seminars and trainings were organized with the participation of graduates of the National University of Uzbekistan with high scientific potential and experience in this field working abroad, and later, in collaboration with Elsevier, Workshops and "Journal Clubs" were organized, and the experience of publishing articles aimed at solving problems of intersection between disciplines and directions was taught.

The work carried out in the departments in such areas as the involvement of foreign professors and teachers in the educational process, increasing the number of foreign students at the faculties, and writing joint scientific projects together was monitored every three months, and measures were taken to improve and increase the results. As a result of this work, the number of foreign specialists involved in the university in 2019 was 77, this figure increased to 105 in 2020, and to 303 in 2022 (online-offline). It was also observed that the admission of foreign students to study increased threefold in 2023 compared to previous years.

While the university initially focused on the number of articles published, in recent years attention has been paid to their quality - publishing articles in high-factor, that is, Q1 and Q2 journals. To this end, the university administration initially allocated 2 million for each article from extrabudgetary funds based on the number of articles. If authors were encouraged by sums, in recent years, awards have been introduced depending on the quartile of the journals. That is, authors were encouraged by 5 million sums for publications in Q1, 4 million sums for articles in Q2 journals, 3 million sums for publications in Q3 journals, and 2 million sums for professors and teachers for publications in Q4 and conference proceedings. As a result of this incentive, the number of publications in Q1 and Q2 journals increased by 2 times in 2020, as can be seen in Table 4.5 below. Therefore, when analyzing the results of universities that led the publication of articles in the Republic of Uzbekistan in 2019-2021, better results were clearly seen at the National University of Uzbekistan than at other universities.

Table 1

Number of articles in journals of local higher education institutions included in the Scopus database (2019-2021)⁴

	Q1	Q2	$\Sigma(Q1, Q2)$	Q3	Q4	Total
National University of Uzbekistan	149	137	286	213	222	721
National Research University "TIQHMMI"	15	34	49	70	226	345
Tashkent State Transport University	4	5	9	132	84	225
Tashkent State Technical University	60	62	122	326	347	795
Tashkent State Agrarian University	3	8	11	133	90	234
Samarkand State University	17	34	44	70	61	175
Tashkent University of Information Technologies	15	34	49	70	226	345

In order to assist young researchers and doctoral students in choosing scientific journals and international scientific publications, the National University of Uzbekistan regularly holds training seminars and journal clubs with Elsevier.

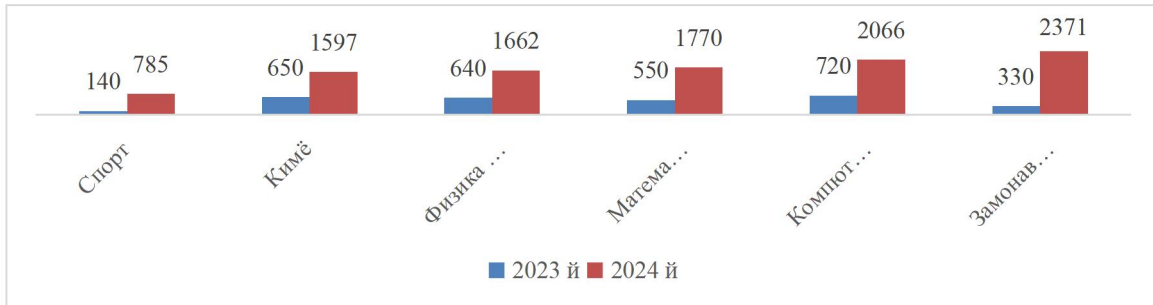


Figure 1. Number of HEIs participating in the assessment of the academic reputation of higher education institutions in the "QS – World University Rankings" rating system ⁵

As a result of the measures taken to include the National University of Uzbekistan in international rating indicators, its position in the "QS – World University Rankings" rating system is improving from year to year. In particular, in the practice of international rating assessment, the "academic reputation" indicator is used to determine the world position of a higher education institution in the field of science. According to the analysis, in recent years, the number of organizations participating in assessing the academic reputation of higher education institutions has increased sharply, increasing to 2,041 in the field of modern languages, 1,346 in the field of computer science, 1,220 in the field of mathematics, 1,022 in the field of physics and

⁴ Ўзбекистон Республикаси Олий таълим, фан ва инновациялар вазирлиги маълумотлари асосида тузилган

⁵ Мирзо Улуғбек номидаги Ўзбекистон Миллий университети маълумотлари асосида тузилган

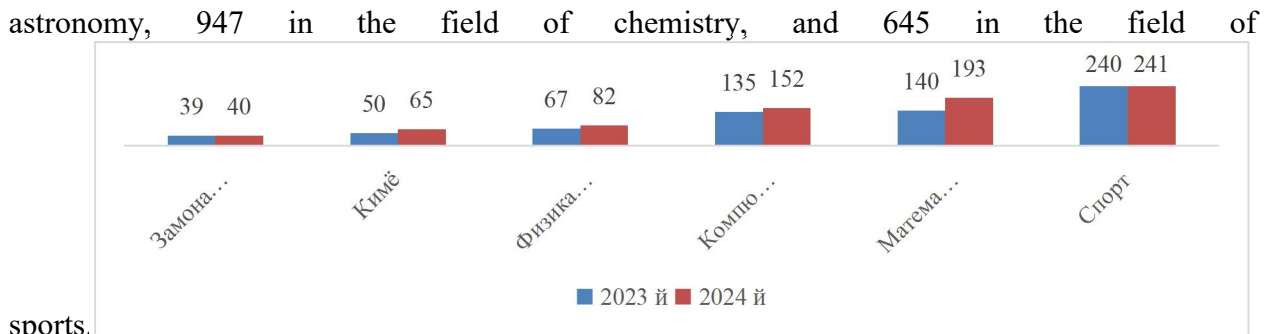


Figure 2. Number of votes received by the National University of Uzbekistan in the “QS – World University Rankings” rating system for academic reputation ⁶

According to the data, the number of votes collected by the National University of Uzbekistan in the “QS – World University Rankings” rating system for academic reputation is characterized by its higher number of votes in the fields of sports, mathematics, and computer science compared to other disciplines. At the same time, the number of votes collected by the National University of Uzbekistan in the “QS – World University Rankings” rating system published in 2024 increased to 53 in the field of mathematics, 15 in the fields of chemistry, physics, and astronomy, 7 in the field of computer science, and 1 in the field of sports and modern languages (see Figure 4.2). This indicates that the university is increasingly entering the ranks of TOP universities among the world's higher education institutions in the field of science.

At the same time, in the rating system of the National University of Uzbekistan "QS - World University Rankings" in terms of the number of votes received by employers for the reputation of the University of Uzbekistan, the indicators of sports, computer science, and mathematics are significantly higher than those of other disciplines. According to the analysis, in 2023-2024, the number of votes given by employers to the university in the field of mathematics increased by 18, in the field of computer science by 13, in the field of physics and astronomy by 10, in the field of chemistry by 8, in the field of modern languages by 6, and in the field of sports by 5.

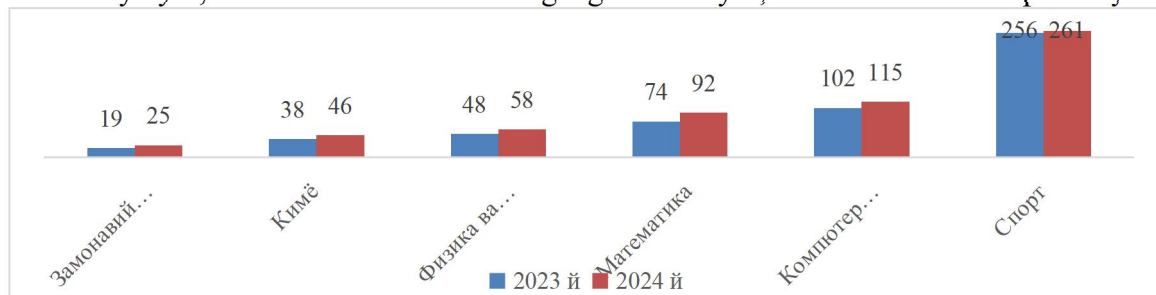


Figure 3. Number of votes received by the National University of Uzbekistan in the “QS – World University Rankings” rating system for employer reputation ⁷

It is worth noting that the National University of Uzbekistan, being one of the largest higher education institutions in the country, currently trains personnel in 93 bachelor's areas of study, 81 master's specialties and 98 doctoral specialties in 85 departments of the institution in 17 faculties, and scientific research is being carried out. According to the analysis of the indicators on the composition of the university's professors and teachers, 1.1% of the total of about 1,300 professors and teachers are academicians, 19.6% are doctors of sciences (DSc), 37.6% are

⁶ Мирзо Улуғбек номидаги Ўзбекистон Миллий университети маълумотлари асосида тузилган

⁷ Мирзо Улуғбек номидаги Ўзбекистон Миллий университети маълумотлари асосида тузилган

candidates of sciences (PhD), their scientific potential is 58.3%, and the average age of professors and teachers is 44 years. This indicates that the university has high potential.

In particular, according to an analysis of the university's academic and employer reputation indicators in the international "QS - World University Rankings" rating system, in 2021-2024, the university's faculties increased their international reputation in the field of science, and the total number of votes they received in academic reputation increased from 115 to 2,099, while the number of votes for employer reputation increased from 22 to 1,586.



Figure 4. Cumulative indicators of the National University of Uzbekistan in terms of academic and employer reputation in the international rating system “QS – World University Rankings”⁸

In this regard, it is appropriate to pay attention to the structural indicators of the scores of the National University of Uzbekistan in the international rating system “QS – World University Rankings-2024” (see Figure 4.5). This will allow us to identify problems in the formation of integrated relations between science and production at the university that meet international requirements.

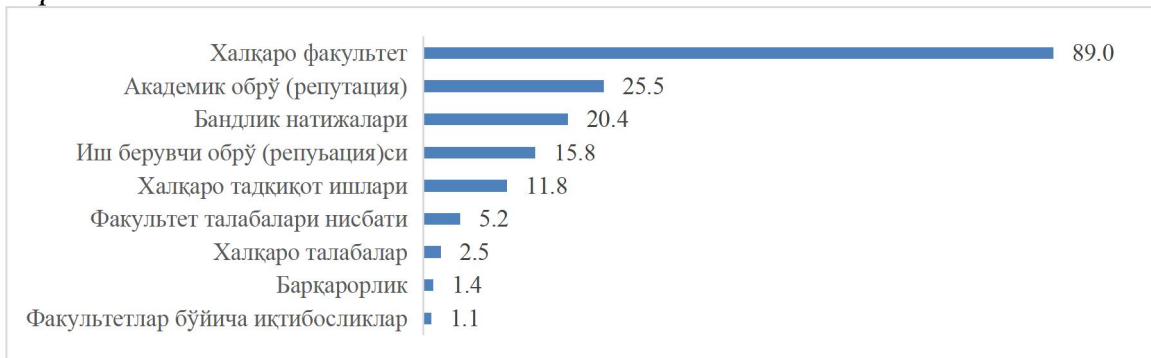


Figure 5. Structural indicators of the National University of Uzbekistan's cumulative scores in the international rating system "QS - World University Rankings-2024"⁹

Conclusion

According to the analysis, today the following problems have been identified in the development of integrated relations between science and production that meet international requirements at the National University of Uzbekistan:

- the lack of effective cooperation between local employers and university faculties. This requires the conclusion of cooperation agreements and the introduction of a monitoring system for the implementation of the conditions set forth in them. Based on the results of monitoring, it is necessary to search for directions for the development of cooperation relations that are

⁸ Мирзо Улуғбек номидаги Ўзбекистон Миллий университети маълумотлари асосида тузилган

⁹ Мирзо Улуғбек номидаги Ўзбекистон Миллий университети маълумотлари асосида тузилган

considered ineffective within the framework of cooperation agreements concluded with employers or to terminate them;

- insufficient development of international scientific cooperation. In this regard, the university leadership is required to establish international scientific cooperation of professors and teachers in the development of science, assist them in establishing scientific cooperation relations with foreign professors and teachers, and create sufficient conditions;
- lack of support for the international mobility of university professors and teachers. It is advisable to introduce the practice of sending university professors and teachers for internships at the expense of university funds to leading foreign higher educational institutions. Within the framework of international cooperation memorandums concluded by the university management, it is necessary to ensure that young and talented professors and teachers under the age of 35 are sent to foreign higher educational institutions for advanced training at the expense of the university funds;
- the number of students per professor and teacher currently at the National University of Uzbekistan is 19/1. In leading higher educational institutions of the world, this indicator is 10/1;
- the ineffectiveness of the system for encouraging the activities of professors and teachers. In some cases, it is necessary to limit the unjustified reduction of bonuses in the payment of bonuses and to switch to the practice of determining bonuses based on a differentiated assessment system for doctors of sciences, candidates of sciences, senior teachers and teachers when assessing the effectiveness of the activities of professors and teachers;
- Expanding the participation of professors and teachers in scientific research, including fundamental and applied grant competitions at the international and local levels. This will require allocating separate hours for scientific activities in the annual workload of professors and teachers.

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