

## Directions of Development of Higher Education System in Uzbekistan

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### ABSTRACT

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The article analyzes the state, development and scientific potential of the higher education system in our country. In addition, the dynamics of the number of foreign students studying in higher education institutions were analyzed. Existing problems in the development of the higher education system were identified and scientific and practical proposals were developed to eliminate them.

The higher education system in Uzbekistan has undergone significant transformations in recent years as part of the country's broader socio-economic reforms. This abstract outlines the key directions of development for the higher education sector in Uzbekistan. Major reforms focus on expanding academic autonomy, improving the quality of education, integrating international standards, and fostering innovation and research activities. Special attention is given to the introduction of modern teaching methodologies, the establishment of international university branches, and the enhancement of digital infrastructure within higher educational institutions. Moreover, Uzbekistan is actively working to strengthen cooperation with foreign universities, diversify educational programs, and create favorable conditions for talented youth. These developments aim to build a competitive, flexible, and modern higher education system that meets the needs of the national economy and global educational trends.

**Keywords:** education, higher education, educational services, educational institutions, scientific potential, financing of higher education, export of educational services.

### INTRODUCTION

In our country, specific and targeted work is being carried out aimed at the development of the higher education system, increasing the level of inclusion of young people with higher education and increasing the ranking of higher education institutions in the world. Because of the strengthening of the social functions of the state, in the last fifty years in the world, because of the creation of higher education opportunities for the majority of the population, higher education has become popular and education has become a global trend.

In developed countries, great attention is paid to investing in the full cycle of education, that is, investing in the education of a child from the age of 3 to 22. Because this investment brings 15-17 times profit to the society. In our case, this indicator is only 4 times. Therefore, we must increase our attention to human capital and mobilize all opportunities for this [1].

According to the Organisation for Economic Co-operation and Development (OECD), "the percentage of people with higher education among the population aged 25-34 is 69.6% in the Republic of Korea, 61.8% in Canada, 60.7% in Japan, 56.2% in Ireland, 55.6% in Lithuania, 51% in Switzerland, 50.8 percent in Great Britain, 49.4 percent in the USA, 46.9 percent in France" [2]. The market of educational services, which is considered an important factor in increasing the intellectual level and labor productivity of workers, allows to involve the population in the educational process and strengthen the position of a person in the relevant segment of the labor market in the future. The labor market, in turn, affects the education market and forms a social order regarding the quality and quantity of educational services.

In the developed G20 countries of the world, the share of the population with higher education has approached the level of 40%, and in some countries, for example, the share of higher education among the population aged 25-64 is Canada 57%, the Russian Federation 56%, Japan 50%, Israel 49%, the United Kingdom and the United States 46%, in Finland, it is 43% [3].

The emergence of integration processes and actions such as "European Breadth of Higher Education" about the urgent importance of training highly qualified personnel in the developed countries of the world shows that higher education cannot develop within one country [4].

As can be seen from the above, the increase in the number of people with higher education in our country has a direct impact on the economic development of the country. From this point of view, the development of the higher education system in our country, conducting scientific researches on improving the quality of higher education is one of the urgent scientific problems.

### **LITERATURE REVIEW**

Some aspects of the development of the higher education system and higher education services are widely studied by economists in the context of the globalization of the economy, by foreign and domestic economists.

Foreign economists O.I. In the scientific works of Fomina [5], the state of higher education in the USA and directions for its innovative improvement, D. Brown, A. Wagner, B. "Higher education financing models" [14] were studied by Salters.

The theoretical and practical aspects of the development of the higher education system, the quality of education and its development in the regions were studied in the research works of Ochilov A.O., Rakhmonov N.R., Iskhakova S.A. [6, 7, 8]. Also, the scenarios and problems of distance education organization in the higher education system were discussed by O.D. It was analyzed in Rakhimov's research [9].

In the theoretician of the new industrial society, J Galbraith at the time became a decisive factor in the production of trained and retrained personnel in the conditions of the industrial system, and it was considered dependent on a highly developed educational system [10].

### **ANALYSIS AND RESULT**

In recent years, the higher education system in Uzbekistan has been actively evolving in response to global educational trends and the country's socio-economic development goals. The analysis of current reforms indicates several theoretical perspectives that underpin these changes.

Firstly, the concept of academic autonomy has become a central principle in modernizing higher education institutions. Theoretical studies suggest that academic freedom and institutional independence are key factors in fostering creativity, innovation, and research productivity. In Uzbekistan, universities are gradually gaining more control over their curricula, financial management, and admission policies, which aligns with international models of higher education governance.

Secondly, the theory of human capital development plays a significant role in shaping the direction of higher education reforms. According to this theory, investment in education enhances the skills and competencies of individuals, contributing to economic growth and social progress. Uzbekistan's educational policies are increasingly focused on producing highly qualified specialists who can meet the demands of a dynamic labor market.

Another important theoretical approach is the internationalization of higher education, which emphasizes the integration of global academic standards and cross-border collaboration. Uzbekistan has established partnerships with foreign universities and opened international university branches to provide students with access to diverse educational programs and global learning environments. This trend is supported by theories suggesting that international academic cooperation enhances knowledge transfer and cultural exchange.

Additionally, the implementation of modern educational technologies and digital infrastructure is grounded in the theory of technological determinism, which posits that technological advancements drive societal changes, including in the education sector. The adoption of online learning platforms, digital libraries, and virtual classrooms in Uzbekistan has expanded educational access and improved the quality of teaching and learning processes.

The results of these reforms are already visible in the increasing number of higher education institutions, the diversification of academic programs, the improvement of teaching standards, and the growing participation of Uzbek universities in international rankings. These achievements demonstrate the effectiveness of the current development directions and confirm the relevance of the applied theoretical frameworks.

In the system of higher education in our country, training of highly qualified specialists necessary for economic sectors in sufficient quantity, if the quality level of trained specialists is low, it will have a negative effect on economic development. Accordingly, we consider the trends in the development of higher education in Uzbekistan in Table 1.

**Table 1**  
**Development trends of higher education in Uzbekistan [11]**

Indicators	2000/ 2001	2005/ 2006	2010 / 2011	2015 / 2016	2020 / 2021	2021 / 2022	2022/ 2023
<b>Number of higher educational organizations, unit</b>	<b>61</b>	<b>63</b>	<b>65</b>	<b>69</b>	<b>127</b>	<b>154</b>	<b>191</b>
including branches of foreign higher educational institutions	-	2	6	7	18	25	26
in them students, thousand people	183,5	278,7	274,5	264,3	571,5	808,4	1042,1
daytime	141,9	204,8	268,7	263,9	441,9	553,9	622,6
evening study	-	-	-	-	11,5	26,5	37,7
extramural	41,6	73,9	5,8	0,4	118,1	228,0	381,8
For 10 000 population there are students of higher educational institutions	74	106	94	84	165	229	289
Admitted students to higher educational institutions, thousand people	44,7	59,6	64,1	63,0	174,9	235,9	282,4
The specialists were issued by higher educational institutions, thousand people	31,6	57,8	76,4	66,3	83,9	103,9	102,4

As can be seen from the data of Table 1, the number of higher education institutions by the beginning of the 2022-2023 academic year has increased more than 3 times compared to the 2000-2001 academic year to 191, including 26 foreign higher education organizations. The number of students studying in these institutions of higher education increased by more than 5 times to 10,243.1 thousand people, the number of students of higher education institutions per 10,000 thousand population increased by 4 times to 289, the number of accepted students increased by 7 times to

282,4 thousand people, graduated specialists number increased by 3.0 times to 102,4 thousand people. “The coverage level of Uzbek youth with higher education it increased by 3 times (9 percent in 2016, 28 percent in 2021). The participation of representatives of foreign and non-state educational services in the educational services market has increased. Number of higher education institutions 2.2 times (64 in 2016 - 141 in 2021), the number of non-state universities increased 7.2 times (4 in 2016 - 29 in 2021)” [12].

In the 2018/2019 academic year, only one non-governmental higher education organization operated in the country, and in the 2022/2023 academic year, there were 42. The number of students studying in them increased from 1.3 thousand to 37.9 thousand [11].

Table 2

**Trends in the development of indicators related to the activity of higher education institutions in Uzbekistan [14]**

No	Academic year	Number of foreign students, pcs	Number of students studying	Share of foreign students, in %
1	2016-2017	603	279674	0,2
2	2017-2018	1320	314467	0,4
3	2018-2019	2685	344790	0,8
4	2019-2020	3593	46839	0,7
5	2020-2021	4219	590077	0,7
6	2021-2022	5140	729200	0,7
7	<b>An increase over last year</b>	<b>121,8</b>	<b>123,5</b>	

As can be seen from the given table 2, the development of higher education services in the country, the rise in international rankings. As a result, the share of foreign students is increasing year by year. In the 2016-2017 academic year, the share of foreign students was 0.2 percent, and in the 2021-2022 academic year, it was 0.7 percent or increased by 0.5 points. Foreign students increased by 21.8 percent compared to the previous academic year.

According to our research, the scientific potential of higher educational institutions in our country in 2020 compared to 2016 was 23.1% or 29,998 people, including the number of professors and teachers with the scientific degree of doctor of science - 63.4% or 2,312 people, professors and teachers with the scientific degree of candidate of science number was 42.5 percent or 9050 people. Between 2016 and 2020, the number of academicians in higher education institutions increased from 31.9 to 38.0, or 19% (Table 3).

In our opinion, although the above situation certainly has a positive trend, it is not enough to bring the higher education system in the country to world standards, to compete at the international level, to train highly qualified specialists and to ensure the quality of education.

Table 3

**Indicators of scientific potential of higher educational institutions of Uzbekistan [11]**

The name of Indicators/years	2016	2017	2018	2019	2020	Change in %
Number of professor teachers including,	24 368	25 418	26 297	26 837	29 998	123,1
The number of doctors of science	1 415	1 666	2 023	2 201	2 312	163,4
The number of candidates of science	6 351	6 649	7 050	7 769	9 050	142,5
<b>Scientific potential, in percent</b>	<b>31,9</b>	<b>32,7</b>	<b>34,5</b>	<b>37,2</b>	<b>38,0</b>	<b>1,19</b>

According to our research, in 2016-2020, priority is being given to practical work on improving the quality of education in higher education institutions in our country, organizing educational processes by highly qualified professors with high scientific potential. In particular, the number of academic councils awarding scientific degrees in higher education institutions in these cities increased from 32 to 106, the number of doctoral students in post-higher education institutions increased from 602 to 2672, and the total number of dissertations defended in 2016-2020 increased from 168 to 1252, or in relation to the number of doctoral students It was 46.9 percent. Also, in 2017-2020, the number of professors and teachers recruited from foreign countries to higher education institutions in our country increased from

495 to 1038 or 109.7%, and the number of professors and teachers sent for internships increased from 476 to 803 or 68.7%.

According to our research, the following factors affect the development and competitiveness of the higher education system in our country, and increase the quality of education:

- that the increase in the level of scientific potential in higher education institutions is not proportional to the increase in the level of inclusion of young people with higher education in the higher education system;
- the number of subjects in the teaching load of professors and teachers in non-specialized higher education institutions, the number of class hours;
- lack of material and technical support of higher education institutions;
- the difference between the methodology of determining the rating of higher education institutions and the methodology of determining the national rating, etc.

### CONCLUSION AND RECOMMENDATION

Based on the results of our research, it is necessary to strengthen the focus on the following in order to further increase the competitiveness of the higher education system in our country and the quality of education:

- increasing the time necessary for academic activities of professors-teachers in non-specialized higher education institutions by reducing classroom hours (up to 250-350 hours);
- further acceleration of ensuring academic independence of higher education institutions;
- implementation of modern models of the public-private partnership system between higher education and the state;
- further acceleration of ensuring academic independence of higher education institutions;
- development of targeted programs for the gradual introduction of the "University-4.0" concept, which provides for the interdependence of commercialization of the results of education, science and scientific research in higher education institutions;
- increasing the number of modern training-laboratory rooms, etc., on the basis of establishing cooperation relations with economic entities that provide production and services in higher education institutions.

In conclusion, the development of the higher education system in Uzbekistan is progressing towards greater alignment with international educational standards and national socio-economic needs. The conducted analysis shows that reforms focusing on academic autonomy, digitalization, internationalization, and the integration of education with scientific research and industry are essential for building a modern, competitive higher education sector.

The theoretical foundations of these reforms are grounded in several key educational theories. **Human capital theory** emphasizes the role of education in fostering economic growth through the development of skilled and competent professionals. **Governance theory in higher education** highlights the importance of academic autonomy in promoting institutional innovation, responsiveness, and accountability. Moreover, the concept of the **entrepreneurial university**, as outlined in **innovation diffusion theory**, suggests that higher education institutions should actively engage in knowledge commercialization and collaborative research with industry to enhance national competitiveness.

Based on the research findings and theoretical perspectives, the following recommendations are proposed to further enhance the quality and competitiveness of higher education in Uzbekistan:

- Strengthen academic independence by granting higher education institutions full control over curriculum design, research priorities, and financial management, enabling them to respond effectively to local and global challenges.
- Develop and implement public-private partnership (PPP) models in higher education, following the **stakeholder theory**, to foster collaborative initiatives between universities, industries, and government agencies for mutual benefit.
- Invest in the expansion of digital infrastructure and open educational resources (OER) to support flexible, inclusive, and technology-driven learning environments in line with **connectivism theory**.



-Gradually introduce the **University 4.0** concept by promoting interdisciplinary programs, commercialization of research outcomes, and the creation of innovation hubs within universities, as guided by **systems theory**.

The establishment of modern laboratories, research centers, and practical training facilities through cooperation with industrial enterprises, based on **practice-based learning theory**, to bridge the gap between theoretical education and practical skills.

-Expand international academic cooperation by participating in joint research projects, exchange programs, and global university networks, fostering **global knowledge integration** and enhancing the global reputation of Uzbekistan's higher education institutions.

Moreover, the research confirms the importance of **international academic cooperation** in raising the quality of higher education in Uzbekistan. Participation in joint degree programs, student and faculty exchanges, international research projects, and global academic networks contributes to the professional development of faculty, broadens students' educational experiences, and enhances the international reputation of Uzbek universities.

In summary, applying these theoretical approaches and recommendations will contribute to the creation of a sustainable, innovative, and competitive higher education system in Uzbekistan that meets the demands of the 21st-century knowledge economy.

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