Higher education as a significant factor of Uzbekistan’s sustainable development

Educación Superior como factor importante en el desarrollo sustentable de Ubezkistán

ABDURAKHMANOV, Kalandar Khodzhaevich 1; KHAKIMOV, Nazar Khakimovich 2; RUZIEVA, Ruhsora Hodievna 3; MAKHMUTKHODJAeva, Luiza Saifullonovna 4 & TOZHALIEV, Abdukosim Aldulhamovich 5

Received: 13/02/2019  ▪ Approved: xx/03/2019  ▪ Published 25/03/2019

Contents
1. Introduction
2. Methodology
3. Results
4. Conclusions
Acknowledgements
Bibliographic references

ABSTRACT:
On the basis of scientific analysis and critical assessment of the state of higher education, the authors consider the most relevant trends in its development as a significant factor in training competitive specialists for various sectors of the economy and the social sector. The authors note the need to expand and reform the higher education system, adjust the content of university curricula, update the facilities of the universities, create new generation universities, including opening branches of leading universities of the developed countries. The conclusion is made about the need for an innovative approach to further improve the work of higher education institutions and create an intellectual environment for future bachelors and masters.

Keywords: higher education, reform, quality, innovation, ideas, program, science, technology, development

RESUMEN:
Sobre la base del análisis científico y la evaluación crítica del estado de la educación superior, los autores consideran las tendencias más relevantes en su desarrollo como un factor significativo en la capacitación de especialistas competitivos para diversos sectores de la economía y el sector social. Señalan la necesidad de expandir y reformar el sistema de educación superior, ajustar el contenido de los planes de estudios universitarios, actualizar las instalaciones de las universidades, crear universidades de nueva generación, incluidas las sucursales de las principales universidades de los países desarrollados. Se concluye que es fundamental la necesidad de un enfoque innovador para mejorar el trabajo de las instituciones de educación superior y crear un ambiente intelectual para futuros bachilleres y estudiantes de maestrías.

Palabras clave: Educación superior, reforma, calidad, innovación, ideas, programa, ciencia, tecnología, desarrollo.

1. Introduction

Uzbekistan's modern community lives and develops in a rapidly changing world; continuous improvement of economic industries and social sector has become a prerequisite for the country's progress. The Republic of Uzbekistan is confidently and dynamically moving towards the achievement of its main goal – joining the number of developed democratic states. The higher education system built on the processes of systematization, creative processing and using the experience of previous generations is the main mechanism of such aspiration. In the conditions of a new stage in this development, higher education must meet the urgent needs of the society. In the new conditions, higher education is one of the priority tasks of the state. In the context of improving all spheres of socio-economic life and forming civil society institutions in the country, the further development of higher educational institutions, which provide an innovative breakthrough in all spheres of activities by training the qualified personnel, is an important factor. The introduction of the main provisions of the Strategy for Innovative Development of the country for 2019-2021 into the activities of higher educational institutions was the most important condition; as stated in the Strategy, the main goal is “to develop human capital as the main factor determining the country's competitiveness level on the world stage and its innovative progress” (Presidential Decree No. UP-5544, 2018).

1.1. Literature review

Current problems of higher education development in the Republic of Uzbekistan are considered in the publications of social scientists of M.V. Lomonosov Moscow State University, G.V. Plekhanov Russian University of Economics (Russian Federation), Harvard University (USA), University of Oxford (United Kingdom), University of Paris (France), Nagoya University (Japan), M. Ulugbek National University of Uzbekistan (Uzbekistan), Coordination and Methodological Center of the Uzbekistan's contemporary history under the Academy of Sciences of Uzbekistan (Uzbekistan).


The issues of the need to attract talented youth to universities, to develop research and educational work in departments and strengthen the linkage with industry, including with the representatives of the private sector, to promote international cooperation in competitive personnel training, to introduce innovative ideas and technologies based on innovative SMART technologies in the education process, to improve training in the new environment, to enhance the role of innovative methods...
The Strategy of Actions on Further Development of the Republic for 2017-2021 outlines specific measures for the development of higher education in Uzbekistan. A total of 80,822 people were studying at the universities, up from 75,517 in the previous year. This is due to the government's efforts to increase opportunities for undergraduate students to continue their studies abroad.

The conditions created in recent years for the private sector development impose further new demands on the quality of higher education. The government has implemented strategic tasks related to development of the economy in order to meet the challenges of globalization. At the present stage of society development, the modernization of the higher education system is urgent.

Higher education in the country is intended for personnel training, followed by employment in various areas of socio-economic activities, including servicing, scientific, economic, technical, and other kinds of management. The higher education system is responsible for the skills and special knowledge provided for future specialists, orienting young people toward revealing the theoretical or practical aspects of the chosen profession, taking into account the creative use of the achievements of modern science and technology.

In the 2017-2018 academic year 297,689 students were studying at the country's universities. A total of 80,822 people were studying in the higher education institutions, including 1,470 with a doctoral degree, 6,011 candidates of science, 1,078 people working as professors and 4,091 associate professors. In foreign language teaching at a modern economic university are considered in the publications of the Academician of the Academy of Sciences of Uzbekistan K.Kh. Abdurakhmanov (2014), N.K. Zokirova (2013), N.Kh Khakimov and S.Kh. Dzhumaev (2018).

The publications of the following authors are devoted to theoretical understanding of the issues of higher education improvement as an important factor in the country’s sustainable development: Brunner and Tillett (2007); Weber and Duderstadt (2010); Søndergaard and Murthi (2012); Abdurakhmanov and Zokirova (2013); Abdurakhmanov. (2016); Kraynik (2015); Sattarov (2018); Odilov and Rakhimova, (2017); Abirov (2017); Ashurova (2018); Tajieva and Babaniyazova (2015); Baisariyev (2016); Babayeva (2015); Baratov and Ramatov (2018); Vokhidova and Khalikova (2016); Gaidanzarova (2017).

A profound scientific research has been conducted on the state and parameters of the comprehensive expansion of competitive specialist’s training and on the further improvement of the innovative activities of higher education institutions in the country. The scholars drew attention to the need to organize the management and financing of research activities and strengthen the ties between university science and research institutes (Abdurakhmanov and Zokirova, 2014; Inomova and Inomov 2018; Zmeev, 2016; Isakova, 2017; Iskhakova, 2018; Makhmudova, 2015; Odilov and Rakhimova (2017), Khudoyberdieva (2016). The works of S. Grishak (2018) are dedicated to the features of innovative modules of higher education and serve as an important source for the problem under study.

It is necessary to mention the significant contribution of the authors to the study of this problem and published scientific articles in foreign periodicals over the past three years (Theoretical & Applied Science, European Science Review, Europaische Fachhochschule, Eastern European Scientific Journal, Sciences of Europe).

2. Methodology

Significant socio-economic and cultural transformations requiring highly qualified personnel took place in the context of the social and economic formation in Uzbekistan. "Speaking about the tasks facing the sphere of economy, first of all, we need to highlight that the following goals are the core of comprehensive economic reforms: educating skilled human resources capable of implementing strategic tasks related to development of economy” (Mirziyoyev, 2018).

The analysis shows that the current state of higher education in Uzbekistan does not meet the qualifying requirements. This was primarily conditioned by the fact that the personnel training system did not take into account the changes concerning the process of deepening the market economy. In modern conditions, the state has set a difficult task for the higher education system – to reach the modern level and meet the challenges of globalization. At the present stage of society development, the provision of decent higher education to graduates of secondary schools, academic lyceums and vocational colleges becomes urgent.

Higher education in the country is intended for personnel training, followed by employment in various areas of socio-economic activities, including servicing, scientific, economic, technical, and other kinds of management. The higher education system is responsible for the skills and special knowledge provided for future specialists, orienting young people toward revealing the theoretical or practical aspects of the chosen profession, taking into account the creative use of the achievements of modern science and technology.

Nowadays the role and importance of personnel in ensuring the country’s sustainable development, security, production of competitive goods, and equal admission of young people from various sectors of society to the universities is becoming increasingly important. This task strongly dictates the need to “rise the prestige of higher education institutions, to increase the number of non-state educational institutions, to attract highly qualified personnel to this sphere as well as to strengthen competition.” (Presidential Decree No. UP-5544 (2018).

To provide an opportunity to be enrolled in several higher educational institutions simultaneously is one of the innovations in the organization of the process of enrolling in higher education institutions for graduates of secondary schools, academic lyceums and vocational colleges. The introduction of a system that allows universities to independently determine the admission of students to the first year based on their real capabilities is another important event in the country.

The conditions created in recent years for the private sector development impose further new demands on the quality of training bachelors and masters. However, "in the process of structural transformations, it became clear that most of the specialists are not ready for them, their knowledge, qualifications and skills do not meet modern requirements. For example, at the initial stage, it is required to send abroad more than 3.5 thousand specialists for training in programs of magistracy and doctoral studies, advanced training and internships. There is a need for more than 600 of our compatriots with international scientific and practical experience. It is required to involve about a thousand foreign scientists and experts” (MFA RU, 2018).

Measures are being taken to increase opportunities for undergraduate students to continue their studies abroad.

In the 2017-2018 academic year 297,689 students were studying at the university that opened its representative office in Uzbekistan (Gazeta.uz, 2018).

In the 2017-2018 academic year 297,689 students were studying at the university that opened its representative office in Uzbekistan (Gazeta.uz, 2018). The Strategy of Actions on Further Development of the Republic for 2017-2021 outlines specific measures for the development of the higher education system – to reach the modern level and meet the challenges of globalization.
of higher education. In modern conditions, the issues of stimulating research and innovation activities, creating mechanisms for the implementation of its achievements in practice become especially relevant. To implement these goals, a two-tier postgraduate education system was introduced, including a basic doctoral program (with thesis defense and awarding a PhD degree in the relevant field of science) and a doctorate program (with thesis defense and awarding a ScD degree). For the purpose of raising the system of research activities organization to a qualitatively new level, measures were taken to further improve the activities of the Academy of Sciences of the Republic of Uzbekistan, the main tasks and priorities of the Academy of Sciences were determined on the basis of modern requirements, special attention was paid to promoting effective research activities (Presidential Decree PP-2789, 2017).

The country has begun to develop and introduce gradually new curricula, programs for new specialties, internships at joint ventures for faculty members of specialized departments of universities, systemic conduct of students’ qualifying practice and practical studies at production sites. Phased training in specialty disciplines in English is introduced at each university; internships in developed countries have been introduced for prospective scientific and pedagogical personnel, the system of personnel training in the magistracy has been critically analyzed. It is important to improve the status of university departments by increasing their responsibility for ensuring the quality of education. It is envisaged to approve the concept of development until 2030 for each university assigned to a particular industry and to ensure that until 2021 at least one university of each industry is recognized by leading international rating agencies. Basic universities will independently develop curricula and programs of academic disciplines proceeding from employers’ needs. To prevent the waste of working time for activities that are not inherent in the educational process, new mechanisms for the professors and teachers’ time standards are introduced, taking into account academic workloads, the principle “student’s performance level as the main criterion for evaluating the professors and teachers’ activities” will be introduced; advanced methods for controlling and assessing students’ proficiency are rooted.

One of the main goals of higher education reform is to ensure the real independence of universities in training and research activities. An important criterion for preventing deterioration in the quality of higher education will be faculty members with advanced degrees.

The country has begun establishing private universities and opening branches of the leading universities of the developed countries, which will increase the opportunity for young people to get higher education in selected areas. As a result, conditions will be created for turning the country into the educational center of Central Asia for the training of highly qualified specialists within 10 years.

This process sets the tasks of increasing the number of foreign students, which is of great importance in forming the competitiveness of the higher education system and for popularizing the modern intellectual reputation of the country in the global community.

Uzbekistan has changed the university admission system, which allowed for maximum transparency of examinations during the tests. Innovative funds and divisions for scientific research commercialization have been created to improve the mechanisms for introducing innovations in universities. To improve the status and provide incentives for faculty members, measures are being taken to increase salaries and introduce a flexible compensation plan.

A comprehensive analysis of the work of higher educational institutions in modern conditions revealed a number of existing problems that adversely affect the level and quality of training of highly qualified bachelors and masters:

• The national educational system has not been adapted to the profound changes in the society, which has led to the limited access to higher education for certain citizens, poor families and socially vulnerable part of the population. The insufficient higher education enrollment of the student age population in Uzbekistan is low (about 9.5%) by regional and international standards. The global trend is to increase the number of students studying at universities.

• There is a shortage of qualified personnel in the republic for new sectors of the economy, business, entrepreneurship and joint ventures. This is especially true for such areas as space research, nuclear industry, information economy, heavy engineering and pharmaceutical industry.

• There are weak linkages between universities and private business. According to a World Bank study (2014), 35.0% of Uzbekistan’s companies face difficulties in finding qualified specialists with higher education.

• The level of physical infrastructure of individual universities does not meet modern requirements. The use of information technologies in the educational process remains at a low level both in terms of expanding access and in terms of using new teaching methods.

• The scientific potential of teachers working in higher education is insufficiently high. In Uzbekistan, the proportion of doctors of science (PhD, ScD) is only 37.9% in the structure of the teaching staff; the remaining 62.1% are teachers who do not have academic degrees. The aging of scientific and pedagogical personnel with academic degrees and titles and reduced influx of young people is a trend of recent years. Teachers of pre-retirement and retirement age make up 31.3% of the total number of highly qualified specialists.

• There is an acute shortage of teachers with foreign language proficiency.

• It is required to further improve the system for training doctors of science and the work of specialized dissertation defense boards.

• Higher education institutions need systemic advanced training for faculty members, including at foreign universities.

• The distance learning system for highly qualified personnel and postgraduate education system remain underdeveloped in the republic.

• The quality assurance system for higher education does not correspond to the international best practice.

3. Results

In the context of deepening market relations, the task arose to further improve the higher education system, including:

- to improve the status of the faculty members, introduce a flexible compensation system depending on the results of research and academic work, release time for basic work by reducing the bureaucratic burden.

- to improve radically the quality of teaching in high school through the introduction of new advanced educational programs and update the content of textbooks and teaching aids, pedagogical and smart-technologies in the educational process.

- to introduce a national system for assessing the quality of higher education and its impact on the level of innovative development of the country.
- to enhance the higher education enrollment for the younger generation in all segments of the population, by increasing the number of universities, including foreign affiliates and non-state higher education institutions.
- to take specific measures providing universities with the opportunity to independently determine quotas for student enrollment and to enable applicants to enter several universities simultaneously.
- to expand opportunities for young people to access higher education through the development of distance learning.
- to strengthen the interrelationships of universities and research institutes with foreign partners, participate in international internship programs for students and scholars, expand the program of foundations and scholarships for students’ studies at foreign universities.
- to staffing departments of universities with young talented teachers

### 3.1. Discussion

Currently, significant efforts are being made in the higher education sector to meet the requirements of socio-economic development, which necessitates a larger number of competitive bachelors and masters trained in areas that correspond to the main priorities of a market economy. Uzbekistan's higher education system does not meet the requirements to a certain extent in fulfilling its role as an engine of innovative approaches and a generator of new ideas, which is necessary to stimulate the growth of the modern, knowledge-based economy. In the context of deepening market reforms, government agencies together with universities are taking measures to ensure equal access to higher education for young people. At present, the higher education enrollment rate for graduates of secondary schools, academic lyceums and vocational colleges amounts to 15.0%. This indicates that the higher education system has shortcomings in its affordability, some universities use outdated mechanisms for training specialists and ensuring the quality of the educational process. This discussion focuses on issues of strategic vision, access, management, quality assurance, financing of the higher education system and its compliance with the new period of the country's development.

Despite the measures taken to improve the activities of higher education institutions, some universities have no comprehensive plan which would define the medium and long-term vision of the university development. To develop and adopt a comprehensive modernization strategy for each university is essential for ensuring the contribution of the faculty members and general understanding of the large-scale results of the reform in the higher education system.

The analysis shows that the rate of admission to Uzbekistan's universities is not high. Enrollment models do not meet the needs of the growing economy and the needs of the student population. The development of a higher education system that meets the needs of a growing economy and the social sector requires the universities to be able to enroll greater number of students depending on the demand. This will allow market structures to supplement the existing system and meet the demand for qualified personnel provided by the higher education system. The existing system enables each applicant to apply for only one department at one university. It is worth examining the issue whether it is possible to replace this system without the risk for applicants to lose a year of study if they were not admitted to the university they had chosen. Finally, expanding access to higher education can be achieved by low-cost means using modern innovative technologies in distance learning.

The structure governing the non-state sector participation in the higher education system is restrictive (as evidenced by the insufficient number of private universities). The board of trustees should be transformed from a consultative body into a body vested with real authority. The board of trustees, together with the academic council, should be granted broad authority to control most aspects of the university curriculum, possibly up to 20.0% of the course content (and the remaining 80.0% are determined by the state education standards and leading universities for each discipline). This will allow universities to differ from each other and meet growing local needs and demands. University councils should be empowered to change student enrollment quotas within 20.0% of the level determined by the Cabinet of Ministers of the Republic of Uzbekistan. To stimulate an effective decision-making process at the level of universities and the central level in Uzbekistan, it is important to create a modern Information Management System for Higher Education. It is required to reform fundamentally the rules and regulations governing the private sector participation in the provision of higher education services.

The current standards for quality assurance in higher education are not consistent with international practice. The quality assurance system is in transition and is trying to move away from the centralized management and control system towards a system that includes best international practice. It is important for Uzbekistan to develop a comprehensive quality assurance system for higher education that complies with the procedures of the international educational process. Such a system will have to ensure the compliance of Uzbekistan's higher education with international requirements for entering the world educational space.

Uzbekistan is entering the phase of development, which can be an important stage in the realization of its socio-economic potential. The demand for qualified personnel is growing at a faster pace than the supply in the country, and there is a discrepancy between the university graduates’ occupational proficiency and skills and the needs of the market.

In the conditions of deepening market reforms, it is necessary to improve the compliance of university graduates’ occupational proficiency and skills with market needs, as well as create and strengthen innovation infrastructure that enhances the quality of universities’ activities in general and encourages the use of creative and innovative approaches to learning. The training of new personnel for the new economy requires the development and strengthening of the partnership of national universities with leading educational institutions of the developed countries of the world in the field of research, advanced training and internships for faculty members. The most important area in the innovative development of universities is to further strengthen the partnership with the domestic and foreign industry sector, which serves as an important factor in improving curricula, laboratories, innovation platforms, research and joint business development.

### 4. Conclusions

It should be noted that during the years of development in Uzbekistan, purposeful work is being carried out to reform the entire system of higher education, create innovative ideas, develop and introduce new technologies, train qualified personnel (graduates) meeting the goals of the country's socio-economic development.

Firstly, higher education is a fundamental component of human capital; competitive education is directly connected with the reform processes ongoing in Uzbekistan. In this regard, the main focus is to stimulate research and innovation activities in the field of higher education that create conditions for the dynamic development of society and improve the quality of the process of competitive personnel training, wide involvement of talented youth in higher education institutions, strengthening the scientific potential of higher educational and scientific institutions, which is a major factor in the innovative development of the country.
Secondly, high-quality higher education is directly related to productivity growth and economic development in general. Thirdly, in the context of training new personnel for the new economy, it is necessary to introduce innovative ideas into the educational, educational, research activities of universities, which will serve to further deepen targeted large-scale work to reform the entire system of higher education.

Fourth, expansion of the country’s international cooperation, increase in export potential and production of competitive goods for the domestic and foreign markets strongly dictates the further improvement of the qualified bachelors and masters’ training. This process is directly related to the need to improve the international ranking of universities and scientific organizations of Uzbekistan.

Fifth, the involvement of gifted university graduates in science requires revision. To create favorable conditions for attracting talented masters to scientific and pedagogical work, it is necessary to attract the possibilities of financial support to the private sector, government and international organizations.

Acknowledgements
This research was conducted on the basis of the thesis study records on the topic “Forming Higher education as a significant factor of Uzbekistan’s sustainable development” (written by A.V. Gileva).

Bibliographic references
Gaibnazarova, Z.T. (2017). Improving the system of higher education as the main factor in the formation of human capital. Scientific and analytical journal “Science and Practice” of the G.V. Plekhanov Russian University of Economics, 3(27), 72-78.


Presidential Decree No. UP-4958. (2017). Decree of the President of the Republic of Uzbekistan No. UP-4958 "On further improvement of the post-graduate education system”. http://www.lex.uz/docs/3119697


1. Academician of the Academy of Sciences of the Republic of Uzbekistan, Doctor of Economics, Professor, Director of the Tashkent Branch of G.V. Plekhanov Russian Economic University, Tashkent, Uzbekistan. Contact e-mail: kalandar.abdurakhmanov1@gmail.com
2. Doctor of Philosophy, Professor, Head of the Humanities and Mathematical Disciplines Department
3. Doctor of Philosophy, Professor at the Department of Humanities and Mathematical Disciplines, the Tashkent Branch of G.V. Plekhanov Russian Economic University, Tashkent, Uzbekistan
4. Candidate of Historical Sciences, Senior Lecturer of the Humanities and Mathematical Disciplines Department, the Tashkent Branch of G.V. Plekhanov Russian Economic University, Tashkent, Uzbekistan
5. Senior Lecturer, Department of Philosophy, the Fergana State University, Fergana, Uzbekistan

©2019. revistaESPACIOS.com • ©Rights Reserved