



SCIENTIFIC-INNOVATIVE ACTIVITY OF THE HIGHER EDUCATION SYSTEM OF UZBEKISTAN

A.E.Norov

An independent researcher of the Chair of Economy / Bukhara State University

ABSTRACT

This article includes the information about the documents on supporting the innovative activity of higher education. Also, it points out the lack of social-economic organization in the activities of higher educational institutions, unsatisfactory arrangement of the prediction of the innovative prosperity based on the analyses and insufficient results in the implementation of the innovative activities and the results of the researches, in commercialization of the scientific elaborations and in attraction of the gifted youth to the scientific researches, and along with the mentioned, nonfulfilment of steady integration in education, science and manufacture is revealed. Besides, it presents the necessity of the advance in the contests, programmes and projects oriented at the contribution to commercialization of the intellectual activities in the higher educational institutions.

KEYWORDS: *innovative activity, higher education system, international programmes, scientific projects, publications, commercialization, state budget*

INTRODUCTION

According to the Strategy of Innovative Development of the Republic of Uzbekistan for 2019-2021, it has been set as a goal to increase the number of the published scientific articles, their citation indexes, participation in international conferences and seminars, and to enhance the research direction of the activities of the higher education institutions on the basis of state support of the most active higher education institutions selected depending on the number of the patents obtained. [1].

Moreover, the concept of the development of the higher education system of the Republic of Uzbekistan until 2030 based on the needs of the social sphere and the economy, involves the purposes of improving the quality of education, training competitive personnel, effective organization of scientific and innovative activities and the tasks for the development of international cooperation.

The concept defines the strategic goals, priorities, objectives, medium and long-term stages of the development of higher education in the Republic of Uzbekistan and is the foundation for the advancement of the programmes and comprehensive measures in this area [2].

The globalization of the world economy and its transition to new technological developments are leading to rising the competition in the world commodity and financial markets, also in the field of

digital technologies and in the ways of solving the evergrowing problems of the population. The main solution to the emerging problems may include the tendencies such as becoming one of the leading countries in the field of science and innovation, being competitive in the fourth industrial revolution, readiness to find new solutions to accumulated institutional problems, as well as to resolve controversial issues caused by globalization.

Nowadays, the government is paying particular attention to the need for full usage of the scientific and innovative potential of higher education. A number of documents [3, 4, 5] regulate the following areas of support for the innovative development of higher education:

- training the innovation-oriented personnel for the needs of high technological sectors of the economy;
- formation of new knowledge and competencies;
- development of the integration between the academic subjects of the universities and the organizations of real sector of economy;
- attracting and uniting young people in the field of science, education and high technology, creating conditions for effective retraining of the scientific personnel and ensuring their academic intensity;



- improving the quality of teaching and the effectiveness of the use of human resources of the universities in solving real problems of the development of high-tech production;

- growth in international recognition of higher education in Uzbekistan, the formation of a global network of universities, internationalization of scientific activity and introduction of a global educational space;

- development and effective use of material and technical base, scientific, technical and educational potential of higher education.

An analysis of financial instruments to support the innovative activities of the educational institutions was conducted during the research of the article. They are classified as follows in an expanded form:

1. The international projects and programmes:

- joint project of the United Nations Development Program "Promotion of leadership in Uzbekistan";

- the project of the Korea International Cooperation Agency (KOICA) "Capacity building of the Academy of Public Administration through the introduction of innovations in the public sector of the Republic of Uzbekistan";

- the project of the "ERASMUS+" programme;

- "The project for providing with scholarships for training" the representatives of the Republic of Uzbekistan by the Japan International Cooperation Agency (JICA);

- "The Education Sector Development Program", the project of the Asian Development Bank, is aimed at ensuring the implementation of the national programme of training in Uzbekistan by strengthening the material base of the education system.

2. The programs adopted by the Ministry of Innovative Development:

- the Fund for Supporting Innovative Development and Innovative Ideas. Measures to establish scientific laboratories equipped with brand new and modern high technological equipment on a competitive basis to conduct advanced research and development work in research and higher education institutions aimed at ensuring the rapid development of science and technology in the country, the development of innovative products aimed at financing [6, 17] the mentioned aspects;

- the Ministry of Innovative Development, the Center for Development Strategy, the UN Development Programme are aimed at supporting the research projects with innovative solutions serving the implementation of the Strategy of Actions for the five priority areas of development of the Republic of

Uzbekistan for 2017-2021 and the main tasks set out in the UN Sustainable Development Goals [7];

- formation, implementation and financing of fundamental and applied researches and also innovative projects financed from the State Budget of the Republic of Uzbekistan [8];

- approval, financing and implementation of startup projects [8];

- enhancing the creative, intellectual and entrepreneurial potential of the youth in cooperation with the government and the economic bodies, and also with the research and educational institutions [9];

- organization of the Academy of Youth, the involvement of leading foreign and domestic scientists, specialists and compatriots in the prescribed manner [9].

3. The target programmes which support leading educational organisations of the Republic of Uzbekistan:

- implementation of systemic measures to ensure the integrated development of the National University of Uzbekistan named after Mirzo Ulugbek [10];

- further development of the system of training, retraining and advanced training the management staff at the Academy of Public Administration under the President of the Republic of Uzbekistan [11];

- training in the field of political science, increasing the effectiveness of fundamental and applied research. These are thought to be scientifically based recommendations to increase the effectiveness of training in the field of political science, to conduct comprehensive systematic research in the field of civil society, the creation and development of the political framework of national statehood, the formation and implementation of domestic and foreign policy, and deepening social-political reforms focused on the development programmes [12];

- the Academy of Banking and Finance of the Republic of Uzbekistan is aimed at retraining and advanced training the management staff and specialists of organizations specialized in banking, finance, taxation and the real sectors of the economy [13].

The above mentioned normative and legal documents and programmes have led to the conclusion that the government is the main power which supports the innovative development of educational institutions. Participation in the programmes and projects is an effective financial mechanism for the implementation of the identification of the educational institutions, in particular, for the commercialization of the results of intellectual activity.

Depending on this support, the government expects educational institutions to go beyond the



priority areas of research and increase the prestige of Uzbek education at the international level:

- Transformation of the National University of Uzbekistan and Samarkand State University into the leaders of higher education institutions of the country;

- By 2030, at least 10 higher education institutions in the country will have been included in the list of the first 1000 in the ranking of internationally recognized organizations (such as Quacquarelli Symonds World University Rankings, Times Higher Education ӘКИ Academic Ranking of World Universities), including the National University of Uzbekistan and Samarkand State University which will be in the list of the higher education institutions for the first 500;

- the development of public-private partnership in the field of higher education, the increase of the level of higher education coverage by 50 per cent on the basis of the organization of the activities of state and non-state higher education institutions in the regions; creation of an adequate competitive environment in the field;

- as an experiment, decentralization and privatization of some of the state higher education institutions (except for the higher military education institutions) the state share in which will be 51 per cent, and applying the principles of corporate

management in them;

- the level of the coverage of the higher education by more than 50% on the basis of the development of public-private partnership in higher education, the organization of the activities of state and non-state higher education institutions in the regions, including branches of prestigious foreign higher education institutions;

- Organizing of training on the basis of programs of 45 foreign higher education institutions;

- Increasing the share of professors and teachers who have trained or completed training abroad from 4% to 20%;

- Increasing the number of higher education institutions from 10 to 100, where digital technologies are introduced in education, including the electronic platform "E-MINBAR", online, webinar technologies;

- Increasing the number of articles in journals indexed in Scopus, ScienceDirect, Web of Science and other international scientific and technical databases from 1,200 to 7,000.

Research results. As a result of the reforms, the number of articles in journals indexed in the international scientific and technical database Scopus in Uzbekistan for the 1st quarter of 2020 can be seen in the diagram below (Figure 1).

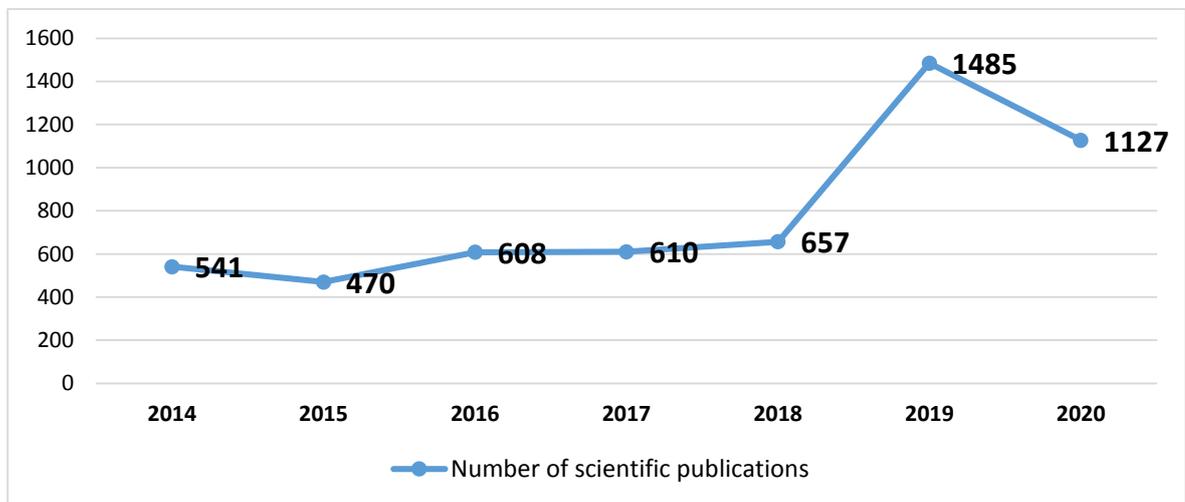
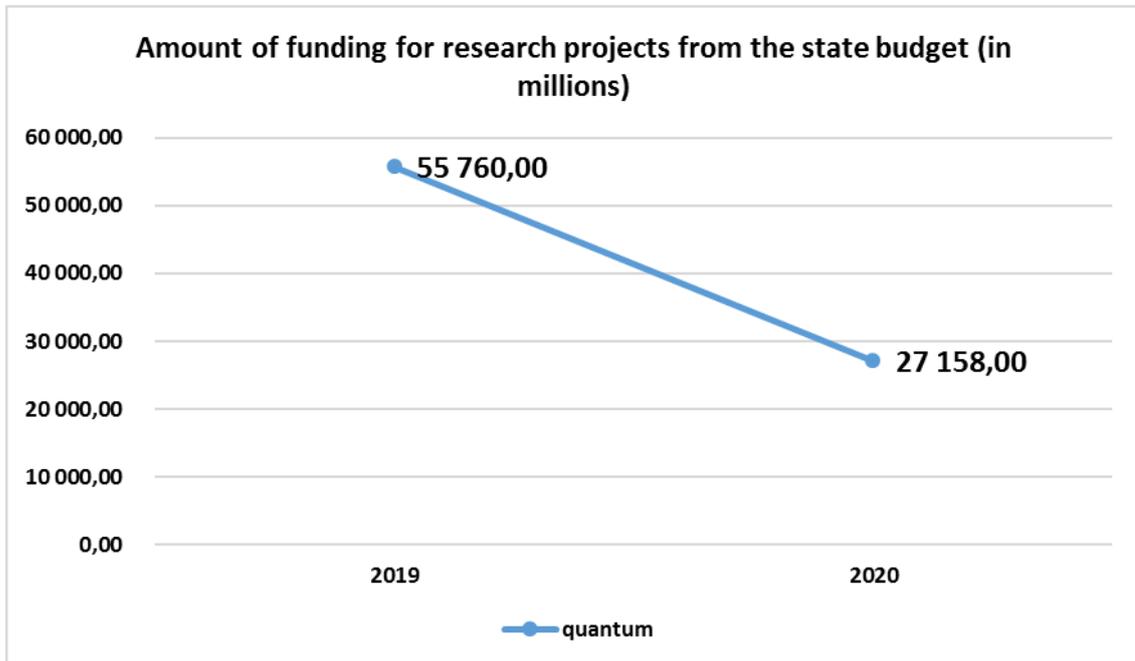


Figure 1. Uzbekistan's share in more than 3 million articles published in world scientific journals indexed in databases such as WEB of Science, SCOPUS

As can be seen from the diagram in Figure 1, the number of publications on scientific publications in the 1st quarter of 2020 alone is 75.8% of the total number of publications in 2019. By the end of 2020, this figure is expected to reach 4,508, or 3 times more than in 2019.

Also, the amount of funding for fundamental, applied research and innovative projects funded from the state budget in the framework of state programs of scientific activity is as follows (Figure 2):



Analysis of the data in Figure 2 shows that in 2019, the annual funding of research projects amounted to 55 billion 760 million soums, while in the 1st quarter of 2020, this figure amounted to 27 billion 158 million soums. This is about 50% of the annual funding compared to the previous 2019. It is obvious that the issues of state support for scientific and innovative activities are growing from year to year.

However, there is a problem of underdevelopment of internal projects and programs of higher education institutions.

These programs are not directly related to supporting the process of commercializing the results of intellectual activity, but rather to supporting more research and production and retaining young staff.

With such competitions, programs and grants, higher education institutions have started their development in the near future and are often implemented in large universities with sufficient funds, which in turn are competitions, programs and programs aimed at supporting the commercialization of intellectual property in higher education and shows the need to improve the internal system of projects.

In conclusion, we can say that the results of the research require the introduction of a system to stimulate domestic demand for new research and development created by higher education institutions.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan dated September 21, 2018 No PF-5544 "On approval of the Strategy of innovative development of the Republic of Uzbekistan for 2019-2021".
2. Decree of the President of the Republic of Uzbekistan No. PF-5847 of October 8, 2018 "On approval of the Concept of development of the higher education system of the Republic of Uzbekistan until 2030".
3. Ministry of Justice of the Republic of Uzbekistan, 2007 Joint Resolution "On approval of the Regulations on the procedure for the formation and implementation of scientific and technical programs of innovation", registered on August 28, No. 1706.
4. Resolution of the President of the Republic of Uzbekistan dated May 7, 2018 No PP-3698 "On additional measures to improve the mechanisms for the introduction of innovations in industries and sectors of the economy."
5. Resolution of the President of the Republic of Uzbekistan dated July 14, 2018 No PP-3855 "On additional measures to increase the effectiveness of commercialization of the results of scientific and scientific-technical activities."
6. Resolution of the President of the Republic of Uzbekistan dated November 30, 2017 No PP-3416 "On the



- organization of the Ministry of Innovation Development of the Republic of Uzbekistan."
7. <https://mininnovation.uz/uz/competitions/natsionalnyj-konkurs>
 8. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated March 9, 2019 No 133 "On measures to further improve the regulatory framework for the development of research and innovation."
 9. Resolution of the President of the Republic of Uzbekistan dated August 30, 2019 No PP-4433 "On measures to improve the system of involvement of youth in science and support for their initiatives."
 10. Resolution of the President of the Republic of Uzbekistan dated June 17, 2019 No PP-4358 "On measures to radically improve the system of training qualified personnel and development of scientific potential at the National University of Uzbekistan named after Mirzo Ulugbek in 2019-2023."
 11. Decree of the President of the Republic of Uzbekistan dated 27.06.2019 Resolution No. PP-4365 "On additional measures to improve the system of training, retraining and advanced training of management staff in the Academy of Public Administration under the President of the Republic of Uzbekistan."
 12. Decree of the President of the Republic of Uzbekistan dated 29.01.2019 Resolution No. PQ-4139 "On measures to increase the effectiveness of training, fundamental and applied research in the field of political science."
 13. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated 30.07.2018 Resolution No. 599 "On approval of regulatory legal acts on training, retraining and advanced training of management staff in the Banking and Finance Academy of the Republic of Uzbekistan"
 14. <https://scival.com/benchmarking/analyse>
 15. <https://mininnovation.uz/>
 16. Law of the Republic of Uzbekistan "On Science and Scientific Activity" dated October 29, 2019 No ZRU-576
 17. Decree of the President of the Republic of Uzbekistan "On the establishment of the Ministry of Innovative Development of the Republic of Uzbekistan" dated November 29, 2017 No PF-5264
 18. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No 4947 "On the strategy of further development of the Republic of Uzbekistan"
 19. Resolution of the President of the Republic of Uzbekistan dated May 5, 2018 No PP-3697 "On additional measures to create conditions for the development of active entrepreneurship and innovative activity."
 20. Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated December 24, 2019 No 1030 "On the procedure for additional payment to employees with academic degrees engaged in scientific, scientific-pedagogical and labor activities in state organizations in the field of science and education."