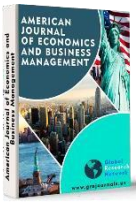


American Journal of Economics and Business Management

Vol. 8 Issue 9 | **pp.** 4570-4577 | **ISSN:** 2576-5973
Available online @ https://www.globalresearchnetwork.us/index.php/ajebm

Article

Determinants of Innovative Development in Higher Education Institutions

Javokhir Shavkatovich Kodirov[1]

1. Jizzakh Branch of Kazan (Volga Region) Federal University

Abstract: Given the rising globalization in the marketplace and the changing market place for value-adding innovative approaches in the education market, especially at the higher education institutions, it has become increasingly important that the education market does a much better job of institutionalizing its more effective approaches. The establishment of the education system in Uzbekistan and its focus on the scientific and production base plays a key role in increasing the competitiveness of the educational services market. Higher education is one of the biggest contributors to the economy of a country, so a lot of efforts for modernization in higher education have been done in order to bring innovation in the market but still, there is a gap in aligning the output with the labor market in this case. Previous studies do not adequately describe the interdependencies of education, innovation, and the labor market while studying contemporary socio-economic conditions of Uzbekistan. The purpose of this study is to identify the factors influencing the innovative development of national higher education institutions in Uzbekistan and to improve methods for assessing competitiveness in the educational services market. Innovation infrastructure, digital technologies and a systemic approach to education and industry integration have a vital impact on the quality and competitive advantage of higher education institutions; the research shows. This research proposes a holistic framework to identify drivers of innovation in higher education and provides actionable insights to enhance the education-science-production nexus. It can be further utilised by policy makers and education leaders who seek to promote innovation in higher education that will enhance the global competitiveness of Uzbekistan's higher education institutions and the labour market alignment among higher education graduates.

Keywords: Educational Services, Innovative-Educational Network, Innovative Thinking, Educational Process, Labor Market Regulation

Citation: Kodirov J. S. Determinants of Innovative Development in Higher Education Institutions. American Journal of Economics and Business Management 2025, 8(9), 4570-4577.

Received: 30th Jul 2025
Revised: 10th Aug 2025
Accepted: 30th Aug 2025
Published: 23rd Sep 2025

Copyright: © 2025 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/)

1. Introduction

In the context of increasing globalization, the importance of enhancing the effectiveness of innovative approaches in the education market and the development of regional innovation-education networks as a key driver of economic growth is steadily increasing. According to international university rankings, "Currently, the global market for international educational services exceeds 100 billion USD, of which 50 to 70 billion USD is attributed to higher education institutions" [1]. Under current conditions, improving the quality of education and the ranking of educational institutions through the development of innovative education networks is considered one of the most pressing challenges to ensure their competitiveness [2].

One of the main objectives in enhancing the competitiveness of the economy of the Republic of Uzbekistan is the identification and selection of priority strategic directions. In

this regard, the creation of a national innovation system that encompasses the implementation of the effective outcomes of continuous scientific research into practice is considered a critical issue for economic development [3]. In addressing these tasks, it is advisable to expand the scope of research aimed at identifying the key factors influencing the competitiveness of higher education institutions in the educational services market, improving the methodology for assessing competitiveness, strengthening the integration of education, science, and production, and enhancing the scientific and methodological foundations and effective mechanisms for improving the quality of educational services [4].

Thematic Literature Analysis

In Uzbekistan, the development of human beings, particularly human capital, primarily implies the formation of an environment that increases the share of cognitive factors in society, enhances labor potential, improves the standard of living and well-being of the population, and ensures sustainable trends and labor productivity. Education, as a fundamental element of the human development concept, plays a crucial role in addressing key issues of social development and in enhancing intellectual potential at the macro level. At various stages of socio-economic development, the high-level advancement of science and education has been considered a vital factor and driving force of socio-economic and techno-technological progress [5].

In the Republic of Uzbekistan, the primary focus in preparing graduates for the labor market through higher education institutions is on modernizing the higher education system and elevating it to a new stage by training highly qualified, competitive specialists with creative thinking skills. In this regard, as emphasized by the President of the Republic of Uzbekistan: “In order to align the qualifications of personnel with the requirements of the international labor market, a national qualification system will be developed. This system will enable the training of personnel in nearly 9,000 professions. We must create all necessary conditions for our ambitious and passionate youth who strive to gain higher education, improve themselves, and pursue knowledge” [6].

According to Professor R.R. Nazarova, “Innovation is defined as the process of introducing novelties, creating, disseminating, and utilizing new (practical) tools to fully satisfy the changing needs of humans under the influence of societal development.” Innovation (the introduction of novelty) is further described as “a system implemented into production as a result of conducted scientific research or discoveries, which differs qualitatively from the previous one” [7].

As a result of fundamental reforms being implemented in the economy of New Uzbekistan, programmatic measures are being undertaken to improve the quality of education, enhance the efficiency of the higher education system, strengthen scientific potential, elevate the integration of “science – education – production” to a new level, increase the effectiveness of scientific activities, and boost competitiveness. “Primarily, the development of education and upbringing, the establishment of a healthy lifestyle, and the advancement of science and innovation must serve as the main pillars of our national ideology” [8].

It should be noted that the education services market reflects the system of socio-economic relations carried out among producers of educational services, their consumers, and intermediaries regarding the production, exchange, and consumption of these services. In this context, it is necessary to consider theoretical views proposed by scholars. According to M.A. Lukashenko, a scholar from the Commonwealth of Independent States (CIS), an educational good is a product produced for exchange and represents a specific economic interest in satisfying the needs of subjects in education. Educational services are a form of activity aimed at meeting the needs of subjects in education, functioning as a commodity among educational products directed toward a common goal [9]. Educational

services constitute the process of developing various labor capacities of a person, that is, an investment in human capital, which takes the form of a complex of benefits [10].

According to D.A. Shevchenko, "The education services market consists of all potential consumers capable of entering into exchange relations with sellers and striving to satisfy their educational needs" [11]. However, this definition offers a one-sided characterization of the education services market category. This is because it does not reflect the manifestation of demand and supply for educational services, nor does it address the mechanisms for developing and regulating this market.

Other scholars who provide a broader interpretation of this concept consider educational services as "the educational, managerial, and financial outcomes of an educational institution aimed at training, retraining, and upgrading the skills of the workforce, as well as facilitating employees in acquiring professions or qualifications, undergoing requalification, and meeting production demands" [12].

In highlighting the significance of this concept within the national education system, it is essential to first focus on legislative documents. As stated in Article 3 of the Law of the Republic of Uzbekistan "On Education": "Education is a systematic process aimed at providing learners with deep theoretical knowledge, skills, and practical abilities, as well as forming their general and vocational knowledge, qualifications, and competencies, and developing their abilities." Furthermore, Article 5 of the same law guarantees: "The right to education is ensured equally for everyone, regardless of gender, race, nationality, language, religion, social origin, beliefs, or personal and social status" [13]. Accordingly, attention to education in Uzbekistan is directed toward ensuring the implementation of state policy objectives as a vital social function of socio-economic development.

2. Materials and Methods

The methodological basis of the study of the innovative development of higher education institutions in Uzbekistan is as follows: This study used a mixed method of qualitative and quantitative data. In the first, a literature review was made, in order to investigate what theoretical frameworks were already available concerning the competitiveness of higher education institutions and their role in the educational services marketplace. This literature review served as a platform for understanding influential forces on innovation implemented in education, specifically, in Uzbekistan. Then a comparative analysis of international models of education system integration and innovation was carried out and its perspectives for Uzbekistan were assessed. Using the case studies of higher education institutions of Uzbekistan allowed a scan of the existing situation regarding innovation and competitiveness in educational services. Interviews were conducted with academic and administrative staff to collect details of institutional hurdles in deploying best practices. This qualitative data were supplemented with quantitative data from university rankings, government policy documents and labour market statistics on education demands. Ultimately, this bi-modal approach enabled a holistic view of the dynamic environments influencing the competitiveness and innovative capacity of higher educational organizations. The outcomes of this research were analyzed through a systems approach with internal and external factors related to the innovative progress of higher education institutions. Abstract: The synthesis of findings will also provide actionable recommendations for policymakers and educational leaders to improve and further strengthen the synergy of higher education-education-science-industry to increase the global competitiveness of Uzbekistan's higher education sector.

3. Results and Discussion

For the effective functioning of a system aimed at enhancing the efficiency of developing a regional innovation-education network in the educational services market, the presence of not only a capable scientific, educational, and industrial infrastructure but also a comprehensive set of institutional conditions is required.

In this context, it is important to pay attention to the theoretical essence of innovation. This concept refers to a new or significantly improved product (goods or services) or process introduced for use, a new marketing method, or a new organizational method in business practices, workplace organization, or external relations [14].

In our country, the innovative processes being implemented in the development of the modern education system are primarily associated with the active use of digital technologies in all areas of human activity and are mainly aimed at improving the quality and efficiency of education. In this regard, students' professional innovative activity acquires a fundamentally new meaning.

The essence and content of innovative activity lie in the fact that any innovation in the field of education becomes effective only when implemented by the teacher. Therefore, transforming students from passive objects into active subjects in the educational process primarily depends on the teacher's professional competence.

It should be particularly emphasized that, as a result of the rapid development of innovative processes in our country, a growing need for innovation infrastructure has emerged. Innovation infrastructure refers to a system of enterprises, organizations, institutions, and their associations regardless of the form of ownership that provide material-technical, financial, organizational-methodological, informational, consulting, and other forms of support for innovative activities. At present, as in all other sectors, an innovation infrastructure has been established in the field of education as well. The formation of this infrastructure can be directly observed through the changes occurring within various types of educational systems.

The development of the higher education services market and its interconnection with the labor market depend not only on the wages paid to specialists with higher education but also on the production infrastructure established within industrial enterprises, the guaranteed prospects for career advancement, and the availability of a conducive working environment. According to Sh.Sh. Zokhidova, "the education services market and the labor market are inseparable components of an interrelated system of relations".

The current stage of societal development necessitates a new type of education system innovative education which is capable of fostering in learners the ability to plan for the future, a sense of responsibility for that future, and confidence in themselves and their professional abilities. At present, under the conditions of globalization of economic development in our country, the competitiveness of the state is directly linked to the effective utilization of its existing scientific and technological potential, as well as the ability to implement innovations not only in the economy but also effectively across all forms of education. Within the structure of traditional professions, significant changes have occurred in young people's systems of values, career orientations, and areas of labor application. All of this confirms the emergence of a new type of specialist competitive personnel equipped with an innovative way of thinking.

The modernization of the education system refers to the revision or improvement of existing mechanisms with the aim of meeting the social, economic, and cultural needs of society, addressing the demand for qualified personnel, ensuring individuals' access to quality education, and supporting the sustainable development of the education system [15].

In the process of modernizing the education system, the following priority tasks are addressed:

- Ensuring equal rights and openness in access to education for every individual;
- Achieving new quality indicators within the system of lifelong learning;

- Establishing effective legal, regulatory, and organizational-economic mechanisms in the continuous education system through the attraction and efficient use of new educational resources;
- Enhancing the social status and professional competence of education system personnel, based on state and societal support;
- Increasing the role of participants in the educational process students, educators, parents, and educational institutions in accordance with the principle of governance based on state and public administration.

In improving the management of higher education institutions, special attention should be given to the following task stages:

Stage 1. Defining the mission and long-term objectives of the Higher Education Institution based on the strategic goals and tasks outlined in the Concept for the Development of the Higher Education System until 2030. In this process, special attention should be paid to improving the quality of training highly qualified specialists in accordance with labor market demands, identifying promising areas of scientific research, and developing mechanisms for the commercialization of scientific results.

Stage 2. Selecting a model for organizing activities that enable the implementation of the defined mission and long-term objectives. In this process, an objective assessment of the historical traditions of the higher education institution, as well as its available tangible and intangible resources, is of significant importance.

Stage 3. Establishing a management structure that allows for the realization of the defined mission and long-term objectives without requiring additional financial investments or organizational changes.

Stage 4. Developing a comprehensive set of regulatory and legal documents that regulate horizontal, vertical, and feedback mechanisms to ensure the effective functioning of the higher education institution's management system, see Table 1.

Table 1. Phases of implementing the regulatory mechanism for the higher education services market and the labor market.

№	The sequence of implementation steps	Tasks involved in the implementation of the stage
1.	A period of structural changes in economic sectors driven by external political and economic factors, as well as internal socio-economic conditions	Forecasting the demand for highly qualified specialists is one of the approaches to aligning the labor market and the education services system with the supply and demand for such professionals
2.	Organization of the educational process in the activities of higher education institutions	Managing the implementation of organizational, educational-methodological, and scientific-innovative initiatives related to the development of the higher education system, based on their development and planning
3.	Advancement of the higher education services market	Ensuring the fulfillment of demand for highly qualified personnel and the training of specialists at the required

		level for production enterprises and service sectors, achieved through coordination with the labor market
4.	Implementing the operations of the higher education services market in accordance with the economic regions and the requirements of the labor market	Performing ongoing economic analysis of the activities of the higher education services system and market, and adopting relevant decisions to foster their development. The regulation of the labor and higher education markets is to be managed as interconnected and mutually influencing entities within a unified organizational and economic framework

Source: Developed by the author

In a market economy, the state should objectively determine the necessary number of highly qualified specialists required by the national economy for higher education institutions. Meanwhile, the quota for admission to higher education institutions within the higher education system, based on contract payments, should be established by the institutions themselves. We consider this division of responsibilities essential.

Summarizing the opinions of several authors, the following characteristics can be distinguished as contributing to the creation of favorable conditions for the development of scientific and innovative activities in Uzbekistan:

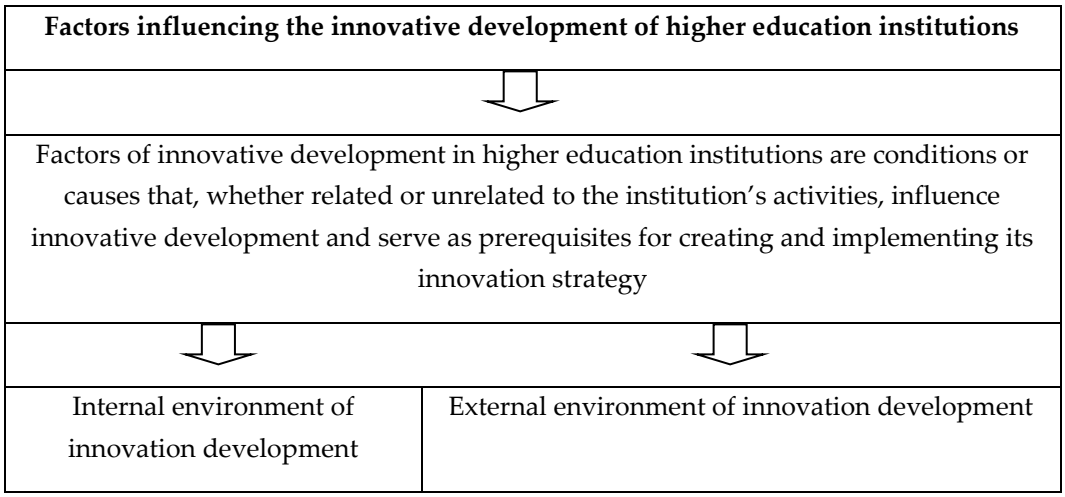
- The higher education sector concentrates a large proportion of highly qualified personnel (over 50% of Doctors of Science and Candidates of Science);
- The higher education system possesses absolute advantages in complementing and restoring itself through the development of science and ensuring staff employment;
- The distribution of higher education institutions across the regions of Uzbekistan is relatively uniform compared to other scientific-innovative sectors;
- The presence of relatively preserved infrastructure in higher education compared to other scientific-innovative fields;
- The maintenance of an international relations system within the higher education sector;
- The possibility of integrating knowledge, education, and innovation activities within a single scientific institution;
- The sector's high adaptability to scientific advancements characterizes the higher education sector.

It is widely recognized at all levels of the state and society that currently there is no alternative to the innovative path for the development of Uzbekistan's economy. The experience of all developed countries confirms the expediency of this transition.

Various aspects of the innovative development of higher education institutions imply the necessity to study the influencing factors as well as the extent of their impact on the effectiveness of innovative activities. In our view, the efficiency of innovative activities in higher education institutions is directly related to the successful resolution of this issue. In other words, the absence of a clear, scientifically-based system of factors reduces efficiency and limits the creation of high-quality innovations, their effectiveness, and successful implementation within the institution.

Firstly, the factors of innovative development in higher education institutions are conditions or causes that may or may not be directly related to the institution's activities, but influence innovative development and are taken into account when creating and implementing its innovation strategy.

The classification of factors influencing the innovative development of higher education institutions deserves special attention from the perspective of systematic and regular study. Furthermore, during the research process, it is emphasized that considering both external and internal factors of the institution's innovative development holds crucial importance, see Figure 1.



Source: Developed by the author

Figure 2. Factors influencing the innovative development of higher education institutions.

Internal factors influencing the innovative activity development of higher education institutions refer to those factors and conditions that exist within the institution and are subject to its influence and control. In this context, the effective management of internal factors of innovative development should be a primary responsibility of the higher education institution.

In the higher education system, universities training highly qualified specialists should determine admission quotas based on contract fees by considering internal circumstances, specifically the necessary conditions required to educate the admitted applicants.

In our opinion, to promote the development of innovative activities in the education system, it is advisable to implement the following measures:

- Accelerate efforts to widely disseminate the content and essence of legislative acts aimed at reforming the education sector;
- Emphasize innovative activities in the development of all sectors, considering the establishment of an innovation-driven knowledge economy;
- Ensure the rapid development of socio-economic relations among subjects of the innovation infrastructure such as innovation technology parks, technology transfer centers, innovation clusters, venture organizations, and innovation centers;
- Pay special attention to regulating relations in the fields of science and scientific activities, as well as developing measures to ensure the quality and effectiveness of innovative activities.

4. Conclusion

The study highlights that higher education in Uzbekistan plays a pivotal role in strengthening national competitiveness by fostering innovation, integrating education with science and production, and aligning with labor market demands. The findings emphasize that innovation infrastructure, digital technologies, and systemic reforms are critical to improving the quality and competitiveness of higher education institutions. However, challenges remain in bridging the gap between educational outcomes and labor market needs. By adopting a holistic framework and addressing both internal and external factors influencing innovation, Uzbekistan's higher education sector can enhance its global competitiveness. The research provides valuable insights for policymakers and education leaders to develop sustainable strategies that ensure the modernization of higher education and its effective contribution to socio-economic growth.

REFERENCES

[1] "Universities Ranking," UniPage, [Online]. Available: https://www.unipage.net/ru/universities_ranking. [Accessed: 16-Sep-2025].

[2] Shavkat Mirziyoyev, "Oliy Majlisga Murojaatnomasi," Xalq So'zi, Tashkent, 25-Jan-2020. [Online]. Available: www.press-servise.uz. [Accessed: 16-Sep-2025].

[3] R. R. Nazarova, "K problemi razvitiya innovatsionnoy deyatel'nosti v ekonomike Uzbekistana," Obshchestvennye Nauki Uzbekistana, no. 1-2, 2010, pp. 30.

[4] Shavkat Mirziyoyev, "Oliy Majlisga Murojaatnomasi," 30-Dec-2020. [Online]. Available: https://review.uz/oz/post/poslanie-prezidenta-uzbekistana-shavkata-mirziyoyeva-oliy-majlisu. [Accessed: 16-Sep-2025].

[5] M. A. Lukashenko and T. Yu. Dobrovol'skaya, "Tsifrovaya korporativnaya kul'tura predprinimatel'skogo universiteta," Sovremennaya Konkurentsiya, Moscow, no. 4, 2020.

[6] D. V. Maslov, "Rynok obrazovatel'nykh uslug: metodologicheskie aspekty," Author's Abstract of Ph.D. Thesis, Yaroslavl, 2002.

[7] D. A. Shevchenko, "Marketingovye issledovaniya rynka obrazovatel'nykh uslug v Rossii," Marketing v Rossii i za rubzhom, no. 1, pp. 25-32, 2013.

[8] T. A. Sony, "Formirovanie rynka obrazovatel'nykh uslug," [Online]. Available: www.marketing/spb.ru. [Accessed: 16-Sep-2025].

[9] "Lex.uz," [Online]. Available: https://lex.uz/docs/5013007. [Accessed: 16-Sep-2025].

[10] Sh. Sh. Zakhidova, "Oliy ta'lim xizmatlari bozori samaradorligini oshirish (O'zbekiston materiallari asosida)," Ph.D. Dissertation, Tashkent, 2012, p. 27.

[11] B. Usmonov, "Innovative scientific-educational cluster for information technology," Int. J. Eurasia Social Sci., vol. 10, no. 35, pp. 19-30, 2019.

[12] M. Saidov, "Uzbekistan: Investitsii v chelovecheskiy kapital, partnerstvo v sfere obrazovaniya," Moscow: Knyzhniy Dom Gazety "Trud," 2008.

[13] M. A. Asiedu, H. Anyigba, K. S. Ofori, G. O. A. Ampong, and J. A. Addae, "Factors influencing innovation performance in higher education institutions," The Learning Organization, vol. 27, no. 4, pp. 365-378, 2020.

[14] P. Martín, K. Potočnik, and A. B. Fras, "Determinants of students' innovation in higher education," Stud. High. Educ., vol. 42, no. 7, pp. 1229-1243, 2017.

[15] S. H. M. Roffeei, F. D. Yusop, and Y. Kamarulzaman, "Determinants of innovation culture amongst higher education students," Turkish Online J. Educ. Technol.-TOJET, vol. 17, no. 1, pp. 37-50, 2018.