



Changes In the Training of Scientific and Academic-Pedagogical Personnel In Uzbekistan During the Early Years of Independence

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Abstract: This article discusses the reforms carried out by the state and their outcomes in the fields of training scientific and academic-pedagogical personnel, as well as postgraduate education, during the initial years of Uzbekistan's independence (1992–1996). In particular, the article analyzes the changes that occurred as a result of developing and effectively implementing action plans aimed at enhancing the scientific potential of higher education institutions under the Ministry of Higher and Secondary Specialized Education of the Republic, as well as addressing issues in the fields of training scientific and academic-pedagogical personnel.

Keywords: Higher Education Institutions, Scientific Potential, Scientific and Academic-Pedagogical Personnel, Postgraduate Education Institute.

Introduction

Higher education institutions not only train specialists by providing education to the youth, but also play a significant role in the country by guiding the younger generation toward science, conducting research and investigations, and preparing scientific and academic-pedagogical personnel. In this regard, significant attention was given to reforms in the field of training highly qualified scientific personnel in the higher education system during the early years of independence. Because science is considered the primary driving force behind the development of any state. Therefore, the advancement of science is one of the key steps toward prosperity and stability for Uzbekistan (Rasulov & Khojayev, 2022). After gaining independence, based on the available economic opportunities and taking into account the existing scientific potential in higher education institutions, it became critically important to further develop this potential and enhance the effectiveness of scientific research in order to advance socio-economic sectors.

Based on this, the reforms implemented in the field of training scientific and academic-pedagogical personnel can be studied in the following stages.

- The first stage covers the years 1992–2012 and includes two distinct periods of development within it: 1992–1996 and 1997–2012 (Yusupov, 2013).
- The second stage covers the years 2013–2016.

- The third stage includes the period of reforms implemented for the development of the sector after 2017.

In Uzbekistan, the development of reforms during the years 1992–1996 encompassed the establishment of the organizational and legal foundations of the state attestation system for highly qualified scientific and academic-pedagogical personnel, the development of regulatory legal documents, as well as the implementation of a comprehensive set of regulatory-legal, scientific-organizational, methodological, educational, and socio-economic measures into practice (Yusupov, 2013).

Based on this, significant attention was given to reforms in the field of training scientifically qualified personnel in the country's higher education institutions during the early years of independence. There were two main reasons for implementing these reforms. First, to preserve and further develop the existing scientific potential in the country's higher education institutions; and second, to provide the newly established higher education institutions in the country with scientific and academic-pedagogical personnel.

Methodology

This study looks at the goals, phases, and results of the reforms made to the Republic of Uzbekistan's higher education system in the early years of independence with regard to the training of academic-pedagogical and scientific staff. Throughout the study, a mix of statistical, comparative, systematic, and historical-legal analysis techniques were used.

Firstly, the political and economic elements, state policies, and regulatory-legal underpinnings that contributed to the establishment and growth of the system for training scientific and academic-pedagogical personnel were examined using a historical-analytical approach. The activities of postgraduate education institutions founded between 1992 and 1996, as well as presidential decrees and ministerial orders, were specifically examined from a historical standpoint. Secondly, a methodical approach was used to examine the relationship between the growth rates, regional variations, and the availability of scientifically qualified staff in higher education institutions across the nation. Disparities in institutional scientific potential could be identified thanks to this method. Thirdly, official statistical data for the years 1991–1996 were examined using the statistical analysis method. These included indicators of scientific potential, the ratio of candidates to doctors of sciences, and the number of professors and teachers. Additionally, indicators of defended scholarly works and the number of researchers admitted to postgraduate and doctoral programs across higher education institutions were compared. Fourthly, the degree of scientific potential of some universities was compared using comparative analysis. During this process, the distinctions between universities with high scientific capacity (like Samarkand State University and Tashkent State Institute of Economics) and those with lower indicators (like Gulistan State University and Karshi State University) were examined, as well as the factors that led to these differences.

These methodological techniques provided a thorough understanding of the early years of independence reforms in Uzbekistan's scientific and academic-pedagogical personnel training system, their regional effects, and their systemic implications. The

study's conclusions also provide a crucial basis for evaluating the coherence of state policies put into place in later phases.

Result and Discussion

In accordance with the Decrees of the President of the Republic of Uzbekistan dated February 28 and May 12, 1992, a total of 9 universities, 3 institutes, and 7 branches were established under the jurisdiction of the Ministry of Higher Education. These include: Andijan State University (AndDU), Bukhara State University (BuxDU), Gulistan State University (GulDU), Namangan State University (NamDU), Termez State University (TerDU), Urgench State University (UrgDU), Karshi State University (QarshiDU), Andijan Institute of Economics and Management, Namangan Institute of Engineering and Economics, Karshi Institute of Agriculture and Economics, Uzbekistan State University of World Languages, and the University of World Economy and Diplomacy (UzNA).

The establishment of new higher education institutions did not merely involve renaming pedagogical institutes as universities, of course. Rather, significant attention was given to fully elevating these higher education institutions to the level of universities and to developing education and scientific research activities in the regions. For instance, four Doctors of Science were invited from Tashkent and employed at Urgench State University. The regional administration allocated 20 apartments for the teaching staff. Similarly, several Doctors of Science were also assigned to work at Karshi State University (UzNA).

If we take a closer look, in 1991 a total of 10,818 professors and teachers were working in the higher education institutions of the Republic, of whom 5,097 were Doctors of Science and Candidates of Science, with the national average level of scientific potential standing at 47.1% [4]. As a result of the changes implemented in the field, by the 1992 academic year, a total of 14,039 professors and teachers were working in higher education institutions under the jurisdiction of the ministry, including 569 Doctors of Science and 6,103 Candidates of Science, bringing the level of scientific potential to 47.5% (UzNA). As a result of the reforms in training academically qualified personnel, scientific potential increased by 0.4% within a short period. Moreover, it is worth noting that this growth occurred in proportion to the increase in the number of professors and teachers, as well as the number of scientifically qualified personnel in higher education institutions. For example, compared to 1991, by 1992 the number of teachers in higher education institutions increased by 29.7% (3,221 individuals), and the number of scientifically qualified educators rose by 30.9% (1,575 individuals). From this point of view, the level of scientific potential in Uzbekistan's higher education system can be considered high, given the circumstances of the early years of independence. As a result of the state's strong focus on preserving and further developing the scientific potential of the country's higher education institutions, significant achievements were attained.

Attention was given to increasing the effectiveness of training scientific and academic-pedagogical personnel by establishing postgraduate education institutions. In particular, during the 1992/1993 academic year, scientific and academic-pedagogical personnel were trained through doctoral programs at 7 higher education institutions in

Uzbekistan (Tashkent State University, Tashkent State Technical University, Tashkent State Institute of Economics, Tashkent Medical Institute, Tashkent Chemical-Technological Institute, Samarkand State University, and Tashkent State Law Institute), and through postgraduate programs at 23 higher education institutions. In addition, in 1992, postgraduate programs were established at 7 higher education institutions (Samarkand Agricultural Institute, Bukhara State Pedagogical Institute, Karakalpak State University, Namangan State University, Gulistan State University, Karshi State University, and Andijan State University). As of January 1, 1993, the number of researchers conducting scientific studies at the postgraduate level across the republic totaled 2,509. In 1992, according to the admission plan, 370 applicants were admitted to postgraduate studies and 50 to doctoral studies, and the plan was fully implemented (UzNA).

Special attention was also given to the newly established higher education institutions in the regions as part of the reforms implemented in the training of scientific and academic-pedagogical personnel. In particular, at Andijan State University, established in 1992 on the basis of the former Pedagogical Institute, a postgraduate education institute was founded during the 1992/1993 academic year in academic fields that had not previously existed and were aligned with Uzbekistan's path of independent development. Specifically, two initial full-time postgraduate programs were opened in the specializations 07.00.02 – History of the Homeland and 10.02.02 – Languages of Peoples, with targeted admission of students. In 1993, three more researchers were admitted in these same fields, and one researcher each in the specializations 02.00.03 – Chemical Compounds, 03.00.04 – Biochemistry, and 13.00.15 – Genetics, making a total of six candidates admitted in this manner (UzNA). In 1993, ten teachers were admitted to postgraduate studies at Gulistan State University. According to Order No. 28 of the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan issued in 1993, new postgraduate programs were opened at the university in the fields of Zoology, Botany, General Soil Science, 20th Century Uzbek Literature, History, and Pedagogy, and 8 applicants were admitted to these programs (UzNA). Starting from 1993, postgraduate education institutes were established at Karshi State University in academic fields such as Botany, Control of Technical Systems, Conversion of Energy Types and Related Devices, Human and Animal Physiology, Theory and History of Pedagogy (UzNA). At Namangan State University, postgraduate programs were also opened in six specializations, with 38 postgraduate students and 15 trainee researchers conducting scientific research at this stage of education [8]. At Bukhara State University as well, in 1993, postgraduate education institutes were established in five specializations, including Uzbek Literature, Linguistics, Pedagogy, Physical Education, and the History of the Homeland (UzNA). At the university, 25 researchers conducted scientific research as postgraduate students (aspirants), 2 as doctoral students, and 15 as trainee researchers. During that year, 7 researchers at the university successfully defended their candidate (PhD equivalent) dissertations (UzNA).

In accordance with the relevant order of the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan, by 1997, postgraduate education institutes were established at higher education institutions in various regions of the country.

In particular, at the doctoral level, one program was launched at Andijan State University (AndDU), one at Tashkent State Technical University (ToshDTU), four at Tashkent State University (ToshDU), and five at Uzbekistan State University of World Languages (O'zDJTU). At the postgraduate level, one program was opened at AndDU, four at Samarkand Agricultural Institute (SamDAKI), two at Tashkent State Institute of Law (TDAI), one at ToshDU, one at Urgench State University (UrgDU), four at Fergana State University (FarDU), one at Fergana Pedagogical Institute (FarPI), and seven at O'zDJTU (UzNA).

The initial reforms implemented in the field of training scientific and academic-pedagogical personnel yielded positive results. For example, the scientific potential of higher education institutions operating in various regions of the republic steadily improved. For instance, in 1993, Samarkand State University had a total of 1,269 professors and teachers, including 83 Doctors of Science and 636 Candidates of Science, resulting in a scientific potential of 56.6%, placing the university among the leading institutions in the country in terms of scientific capacity (UzNA). At Tashkent State University of Economics, there were 543 professors and teachers, including 49 Doctors of Science and 249 Candidates of Science, with the level of scientific potential amounting to 54% (UzNA). The percentage of highly qualified personnel at the Tashkent Institute of Automobile Roads was as follows: Doctors of Science – 3.9% (20 individuals), Candidates of Science – 46.7% (241 individuals), holders of the title of Professor – 3.9% (18 individuals), Associate Professors – 43% (221 individuals), with the overall scientific potential amounting to 50.6%, which was above the national average (UzNA). At the Namangan Institute of Industry and Technology, in 1993, there were a total of 228 teachers, including 10 Doctors of Science and 108 Candidates of Science, with the level of scientific potential reaching 51.7%, indicating positive results in terms of staffing with academically qualified educators (UzNA). At the Andijan Institute of Economics and Management, out of a total of 113 professors and teachers, 6 were Doctors of Science and 49 were Candidates of Science, with the level of scientific potential amounting to 48.6% (UzNA). At Karakalpak State University, out of 389 professors and teachers, 28 were Doctors of Science and 135 were Candidates of Science, with the level of scientific potential amounting to 41.9% (UzNA).

At the Jizzakh Polytechnic Institute, established in the early years of independence, the total number of professors and teachers in 1993 was 143, including 3 Doctors of Science and 59 Candidates of Science, with the level of scientific potential amounting to 43.3% (UzNA). At Andijan State University, out of 322 professors and teachers, 12 were Doctors of Science and 122 were Candidates of Science, with the level of scientific potential amounting to 41.6% (UzNA). At the Andijan State Pedagogical Institute of Foreign Languages, out of 192 professors and teachers, 4 were Doctors of Science and 70 were Candidates of Science, with the level of scientific potential amounting to 38% (UzNA). At Karshi State University, out of a total of 522 professors and teachers, 19 were Doctors of Science and 168 were Candidates of Science, with the university's level of scientific potential amounting to 36% (UzNA). In 1993, one doctoral dissertation and seven candidate (PhD equivalent) dissertations were defended by researchers at the university (UzNA).

As of January 1, 1994, Gulistan State University had 426 teaching staff, including 4 Doctors of Science and 113 Candidates of Science, with the level of scientific potential amounting to 26%. In addition, in order to improve the quality of education and scientific potential, 8 professors holding doctoral degrees were invited from outside and employed on a 0.5 full-time equivalent basis. The following departments of the university had relatively high levels of scientific potential: History (32.6%), Physics (28%), and Mathematics (27%) can be included among them. The following faculties had lower-than-average potential: Philology (22%), Biology (20%), Russian Language Philology (16%), Primary Education Methodology (14%), and Physical Education (7%) showed lower indicators [6]. In 1993, four researchers at the university successfully defended their candidate (PhD equivalent) dissertations (UzNA).

From the information provided above, it can be concluded that in the early years of independence, the level of staffing with scientifically qualified personnel in some higher education institutions was above the national average, while in others, the scientific potential indicators were below the national average. Despite this, the situation in higher education institutions with low scientific potential can also be positively assessed, taking into account the circumstances of the early years of independence. Because, based on the situation regarding the provision of scientifically qualified personnel in higher education institutions after the 2000s, such a conclusion can be drawn.

In the field of training scientific and academic-pedagogical personnel and recruiting scientifically qualified staff in higher education institutions, the Andijan Institute of Economics and Management achieved notable positive results. In particular, by 1996, the institute had a total of 226 teachers, including 11 Doctors of Science and 85 Candidates of Science [19]. If these figures are compared with the data from 1993 mentioned above, the situation becomes even clearer. Specifically, by 1996, the number of professors and teachers at the institute had increased by 100%, the number of Doctors of Science by 83.3%, and the number of Candidates of Science by 73.4%. One of the main reasons for the rapid growth of scientific potential at the institute was the increased demand and attention to this field, due to the transition to a market-based economy in the early years of independence.

Conclusion

In conclusion, it can be said that the changes resulting from the reforms implemented in the field of training scientific and academic-pedagogical personnel during the initial years of independence (1992–1996) can be positively evaluated. Because during this period, despite limited economic resources, there was an increase in the number of academically qualified professors and teachers in the country's higher education institutions. As a result, there was also an increase in the scientific potential of the Ministry of Higher and Secondary Specialized Education and higher education institutions. The growth of scientific potential in higher education institutions contributed to finding effective solutions to existing problems in the socio-economic sectors.

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