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Generational differences in University Students: Challenges or opportunities?

ARTICLES

Different university model approach in the field of earth sciences: 'University of Geological Sciences' in Uzbekistan

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Different university model approach in the field of earth sciences: 'University of Geological Sciences' in Uzbekistan

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Abstract: The intellectual potential of a nation is a critical determinant of its human resource capabilities, with higher education serving as the foundation for cultivating such potential. Traditionally regarded as a public service, higher education has evolved in recent decades to incorporate diverse models that blend public and private sector roles. These models, including state-centered, research-oriented, and market-driven approaches, highlight the multifaceted nature of modern education systems. This study examines the University of Geological Sciences (UGS) in Uzbekistan, established in 2020, as a unique case within this framework. UGS was founded to address the country's need for specialized expertise in geology and mining, sectors deemed pivotal for Uzbekistan's economic growth and geopolitical positioning. By analyzing the university's structure, objectives, and operational strategies, this paper evaluates how UGS aligns with global higher education trends while maintaining its state-centered foundations. The research explores the

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institution's integration of theoretical and practical education, the role of research-oriented initiatives, and its gradual engagement with market-driven imperatives. Furthermore, the study emphasizes UGS's adaptability to global trends, including technological advancements, demographic changes, and international collaboration. These efforts position UGS as a potential global leader in earth sciences education. Ultimately, the paper underscores the importance of developing a hybrid educational model that balances state priorities with global competitiveness, ensuring that UGS fulfills its mission of advancing geological education and research in Uzbekistan and beyond.

Keywords: Higher education; university model; earth sciences; geology; mining sector; Uzbekistan.

I. Introduction

The year 2020 has been declared the "Year of Development of Science, Education and Digital Economy" in Uzbekistan, and the priority targets are detailed in the decision of the President of the Republic of Uzbekistan dated August 12, 2020 and numbered PQ-4805 (Official Gazette 2020). Taking into account the potential of developing science schools in the country, national interests and developments in the global field, it was decided to develop mathematics, chemistry, biology and earth sciences (geology) in 2020.

To achieve strategic objectives, efforts are directed toward establishing a comprehensive methodological foundation for the adoption and implementation of a new national personnel training model. This initiative is supported by legal frameworks, including the "Training Law" and the National Personnel Training Program. A defining characteristic of this methodology is its emphasis on cultivating intellectually capable individuals who are not only socially engaged and spiritually enriched but also possess a strong competitive mindset.

The continuity of education and training can be ensured by the coordination of theoretical knowledge and practical activity. With this approach, it is aimed to provide the conditions that will reveal the progress of the society and the happiness of the people in the education process (Karimov 2015).

Historically, universities were primarily established to address societal needs in disciplines such as theology, medicine, and law, particularly before the onset of modernization in the 19th century. During this period, higher education institutions also emerged in technical fields like engineering and architecture, aimed at providing vocational education to meet practical, day-to-day requirements (Gürüz 2003, 74-107). In contemporary academic

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discourse, Burton Clark's framework, introduced in 1983, is widely utilized to analyze university models (Ekinci et al. 2018, 781) . This framework evaluates the various factors influencing university performance and is commonly referred to as "Clark's Triangle" or the "triangle of coordination." It categorizes universities based on their structural alignment, identifying three primary orientations: state-centered, academy-centered, and market-centered (Lang 2015, 1-17) .

The institution primarily responsible for higher education in Uzbekistan is the Ministry of Higher Education, Science and Innovation. Apart from the higher education institutions that are directly affiliated with the Ministry of Higher Education, Science and Innovation, there are also specialized higher education institutions for which other ministries are responsible. For example, there are 7 specialized higher education institutions affiliated to the Ministry of Health, 4 affiliated to the Ministry of National Education, and one affiliated to the Ministry of Foreign Affairs. There are also academic high schools and vocational high schools to strengthen and support higher education.

Higher education in Uzbekistan is mainly carried out with an academic approach according to the 'National Personnel Training Program'. In the light of this program, the main duties of the relevant ministry are as follows:

1. To ensure the implementation of a unified state policy in the field of higher and secondary vocational education, which aims to train personnel who can think, produce and have qualified characteristics with an innovative approach;

2. To ensure the integration of international practices in a beneficial and effective way towards the development and improvement of the higher and secondary vocational education system in the country;

3. To coordinate the higher and secondary specialized educational institutions of the country;

4. Researching and providing the demand for education services from all segments of the society in line with the current and future educational needs of the country in accordance with the socio-economic development priorities;

5. In the light of developing technology and new trends, to ensure the implementation and effective use of progressive education forms, including distance education, new teaching and information and communication technologies, in the education process;

6. To ensure the education and development of all the stakeholders of the education system with the continuous education system approach;
7. To enable research and development activities in higher education and to ensure close cooperation between science and industry.

Apart from official higher education institutions, there are also private higher education institutions with both local and global origins. The education models of all these higher education institutions, both public and private, differ from each other.

The restructuring of higher education in Uzbekistan commenced after the nation achieved independence in 1991, marking a significant turning point in the development of its academic and institutional framework. However, due to its relatively recent establishment, the system has not yet reached the level of maturity or institutional depth observed in countries with more longstanding traditions of higher education. While substantial progress has been made in aligning the system with national priorities and global trends, it continues to evolve, addressing structural and operational challenges inherent in its formative stages. This ongoing development reflects the dynamic nature of Uzbekistan's efforts to build a robust and competitive higher education sector.

University of Geological Sciences under the Ministry of Mining Industry and Geology established in 2020, when defined according to the models mentioned in the literature, is state-centered in theory, but also has an academic-centered approach with its practical applications.

Considering that the country has a surplus of underground resources and mining is a sector that concerns not only regional but also global stakeholders, it can be defined as a mixed model, considering that it will have a market-oriented setup over time .

II. Earth Sciences - Geology and Mining in Uzbekistan

After its independence in 1991, especially with the New Uzbekistan vision, the state's approach to the geology and mining industry has been primarily to ensure the country's mine and raw material security and to protect its geopolitical interests in the regional and global arena. To enhance the mining sector's contribution to the economy and public finance, the Uzbekistan administration has implemented a series of comprehensive innovative decisions to advance state policy in the field of geology (Official Gazette 2020).

Mineral resources play an important and major role in the economy of Uzbekistan. With the efficient and effective processing of raw materials and

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the production of high value-added products based on them, the contribution of mineral resources in the country to budget revenues increases significantly.

According to the International Energy Agency (IEA), natural gas is the predominant energy source in Uzbekistan, accounting for approximately 85% of both the country's total energy supply and electricity generation (IEA 2022, 12). Approximately 2.3% is coal and the remaining 0.7% is hydroelectricity. In addition, when other underground resources are examined, Uzbekistan is among the few countries in the world in the supply of certain minerals: gold, uranium, copper, phosphate, molybdenum, etc. It is among the top five countries in terms of total gold reserves in the world and among the top 10 countries in terms of gold production.

Geology and mining have undoubtedly been determined as one of the most basic dynamic pillars of the developing economy of the country. Meeting the raw material needs of all sectors, particularly those related to scientific and technological progress, requires accessing underground resources and utilizing them efficiently.

On the basis of the new vision, 2 main objectives related to geology and mining were determined. These:

1. Determining the underground resources effectively and efficiently and establishing the necessary operating infrastructure and making it salable;
2. Effective and efficient production of underground resources and taking steps towards export by turning them into value-added end products

The steps to be taken to achieve the above-mentioned main goals are determined as follows:

1. It is aimed to complete the necessary mapping and to reveal the picture of the underground resources of the country by carrying out extensive mineral exploration studies throughout the country.
2. As a result of determining the priorities of the world's raw material needs, bureaucratic improvements have been planned that will enable both domestic and foreign investors to carry out the necessary activities for the determination of production priorities in underground resources and the production of end products.
3. It is aimed to take the right steps especially in the fields of secondary and higher education for the training of the personnel needed to carry out the geology and mining activities. It is important to organize and implement the necessary training programs in the fields that are thought to be

needed both in the short and long term in education policies. Since the activities to be carried out in these programs are intertwined with basic sciences such as physics, chemistry, biology and mathematics, a multidisciplinary education policy should be integrated.

As one of the developing countries, industrialization is the priority of Uzbekistan. More than 2,000 mineral deposits of more than 70 mineral species have been discovered in Uzbekistan until now. However, there are other potential areas that can easily be developed. Besides having the world's leading gold and uranium deposits, it also produces main minerals such as copper, silver and coal it is also an important producer of hydrocarbons (NEA 2022, 11; IEA 2022, 61-66; USGS 2021, 1-10).

The primary objectives of taking these decisions were to reveal the mineral resources in the territory of Uzbekistan, to ensure the rational use of these resources in an effective and efficient way, and to further increase the investment attractiveness for this purpose.

It is necessary to take the important steps to ensure that the applied activities to be carried out after the right planning in human resources are carried out at the same time in the current and advanced technological infrastructure. To enhance the global market appeal of mineral resources and their derived end products, it is imperative to ensure that adequate human resources and technological infrastructure are in place. This effort should be complemented by the implementation of appropriate legal regulations and the development of effective marketing strategies. The relevant presidential decrees for these goals have already entered into force and the details of these decrees have been made accessible on the official website of the Presidential Administration for the accessibility of all segments of society.

III. Establishment of University of Geological Sciences (UGS)

The University of Geological Sciences was established in Tashkent under the Geology and Mineral Resources State Committee to provide sufficient and effective human resources in the field of geology and mining. As of 2023, within the scope of the restructuring of Uzbekistan state institutions, the State Committee of Geology and Mineral Resources was renamed the Ministry of Mining Industry and Geology (Official Gazette 2020). Therefore, the University of Geological Sciences has become a higher education institution directly affiliated to the relevant ministry.

Although there are 2 faculties and 7 departments for educational purposes in the university structure, there are institutes named as the

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Institute of Geology and Geophysics, the Institute of Mineral Resources, the Institute of Hydrogeology and Engineering Geology, the Institute of Geology and Oil and Gas Field Exploration, the Institute of Advanced Education and Retraining of Geology Personnel and the State Geological Museum.

Apart from these, the establishment of the Geoinnovation Technologies Center, which has a scientific and technological infrastructure, has been going on to further advance research and development in the field of geological research, rational use and protection of mineral resources. The center, equipped with state-of-the-art methods and technologies for the examination of mineral resources, will provide opportunities for training and employment of expert personnel across multiple levels. These include Bachelor's, Master's, and Doctorate programs, as well as Continuous Professional Development (CPD) initiatives, ensuring a comprehensive approach to skill development and specialization in the field.

The University of Geological Sciences, aligned with the vision of the new Uzbekistan, aims to activate an innovative educational framework and cultivate talent by 2030. With a focus on fostering collaboration between academia and industry, the university will provide an environment where diverse disciplines operate under a unified global vision and approach to international cooperation, positioning itself as a world-renowned research and practice center in its field. It aims to ensure that human resources effectively take part in the country's goals.

When the activities carried out by the University of Geological Sciences since its establishment are examined, it is explained below which model can be defined within the scope of higher education models.

State Model approach: The state model approach corresponds to the model in which the authority is at the center in Clark's triangle of coordination regarding higher education (Cohen and Sapir 2016, 607; Fındıklı 2017, 393-394). In this model, there is a single-centered and constantly controlled approach, in which the central government aims to educate individuals within the framework of patterns determined by it, while preserving the public order and structure (Meray 1971, 13-40). Since the University of Geological Sciences was established under the Ministry of Mining Industry and Geology, which is a public authority, there is a state model approach. In this context, it can be said that the state is active in the structuring of the university and that there is a rector appointed by the state as the academic leader of the university. With this approach, it is clearly seen that the primary duty of the university is to serve the state.

With the vision of a new Uzbekistan and the goal of becoming a stronger nation, the state has positioned itself as a dominant actor in the field of earth sciences, driven by a focus on developing strong human resources as a primary objective. The staff and students of the university actually function directly as part of the bureaucracy.

The University of Geological Sciences is in a position to train the necessary manpower for the realization of the short-medium and long-term plans of the State Administration, as well as to carry out practical activities together with other relevant ministry institutes and organizations as part of the Ministry.

Research Oriented Model approach: The main purpose of this approach is to ensure that academics provide research-based education and the autonomy of the university. (Muller 1985, 253-256). In addition, the university is expected to produce knowledge by conducting basic scientific research and to convey what it produces to everyone with a general understanding of education and training without being directed towards a specific profession. Therefore, the University of Geological Sciences is not suitable for this definition as a model in its early stages. However, in the future, the management of the university by a rector and faculty deans elected by the academicians and approved by the central government may create an opportunity to become more compatible with the research-oriented model (Doğramacı 2007, 3-13).

However, although it does not fully comply with this model, the fact that the institutes within the university carry out projects and make international cooperation shows that it also has a research-oriented side.

In fact, both academic and industrial projects will be carried out with the Geoinnovation Technologies Center, which will be established as an indicator of a research-oriented understanding. This center will enable both theoretical and practical studies to be carried out thanks to its high-tech devices and equipment.

Market Driven Model approach: In this model, the university is a model that develops people's abilities and skills by providing "liberal formation", and also finds solutions to the problems of society and is highly accepted in countries such as England and America (Meray 1971, 13-40). Therefore, the reason why the market-oriented model is classified as such is that research services are conducted and funded in a market-oriented manner. In this way, universities both create the necessary funds for research and conduct research in the direction demanded by the market.

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This approach, which is based on research activities carried out to meet the needs of markets for the services provided by universities, does not fully match the Geological Sciences University, since the purpose of its establishment is primarily to achieve public goals. In this model, the aim is to reveal the personal potential of individuals, that is, individuals do not have to worry about finding a job after they graduate and acquire a certain profession. Because graduates are offered the opportunity to work directly in the public sector. Therefore, it does not seem possible for the Geological Sciences University, whose main purpose is to create the human resources needed in the field of earth sciences, to exhibit a market-oriented approach, that is, on behalf of the private sector.

So far, different higher education models have been mentioned above, but it can be said that new model approaches may emerge from different factors operating in the developing and changing world. Considering the "10 Trends That Will Shape Higher Education" report published in 2012 by the British Council, the organization that responsible for the international education activities of the United Kingdom, it may be envisaged that models will become much more intertwined with new trends. The four main trends that will cause drive change in Uzbekistan are:

1. *Change in demographic structure:* It will be inevitable that universities, which take their human resources from the society, will also be affected by changes in the social structure. The increase in population, the prolongation of life expectancy, the limitation of manpower needs in the digitalized and automated industry, and the change in production and consumption needs will also cause changes in universities. It should not be forgotten that the demands of future generations will be different from today and universities will need to keep themselves ready for this change.

2. *Increasing demand for higher education:* Depending on the human resources they need at primary, secondary and higher education levels, states make plans in accordance with the education policies they have determined, but it will be inevitable for the demands of future generations to change. As the demand for higher education increases, the supply situation and accordingly the higher education structure will change. Because there has been an intense pressure for quality education, namely higher education, in societies.

3. *Sectors becoming more involved in the education process:* Since the classical research and education approaches cannot adequately adapt to the changes that the industry has undergone, the sectors may make their

own education plans. This may cause that they will establish their own higher education institutions over time. This process can turn into a structure in which the market-oriented process mentioned above is now dominated by market determinants. First of all, there will be a model in which the university-industry partnership is more intense and opportunities such as internships are more and more effective, and in this way, the employment of graduates is ready.

4. *Technological change, development and digitalization:* Change and progress in technology also directly affect education. Especially after the pandemic, the importance of digital infrastructure has attracted attention and alternative education applications such as distance education have become a little more important. It is not yet sufficient for applied sciences today. But when there is sufficient infrastructure in the future, there will be distance education for all professions and therefore higher education institutions that will realize this.

In addition to the basic trends mentioned above, the budget needed in the supply-demand balance and how this budget will be provided will be a criterion for university models. Another point is that with the emergence of the concept of universal citizenship, education will evolve from local to international platforms. This evolution will also take place under the control of a more international mechanism instead of local rules, that is the control of the international authority.

IV. Review of University of Geological Sciences

The effectiveness of an individual's education in the modern age is determined by the content of education, its practical applications and the necessary infrastructure to have up-to-date technologies. Under the conditions of contemporary civilization, no society can develop in isolation from the world. Therefore, the quality of the education system today must transcend narrow local borders and possess international, global significance, requiring integration and communication with the world.

The quality of higher education should be directed towards the training of specialists ready for professional activity in accordance with the requirements of economic progress. Achieving this requires a comprehensive evaluation of the educational content, teaching methods and formats, infrastructure, as well as the knowledge and skills of educators.

The structure and activities of the University of Geological Sciences are examined in the light of the concepts mentioned above. The University of

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Geological Sciences consists of 6 main departments providing academic education; Department of General Geology, Department of Geology and Geophysics of Mineral Deposits, Department of Technique and Technology of Geological Exploration, Department of Oil and Gas Geology, Hydrogeology and Geoecology, Department of Economics and Social Sciences, Department of Exact and Natural Sciences. The principle in academic education is to transfer the basic and theoretical knowledge in higher education to individuals with a universal approach. The main purpose of academic departments is to train geologists who have basic knowledge about mineral resources and priorities in the economy of Uzbekistan, who can conduct theoretical and practical studies and who can do practical work. Apart from these, there are institutes such as the Institute of Geology and Geophysics, Institute of Mineral Resources, Institute of Hydrogeology and Engineering Geology, Institute of Geology and Oil and Gas Field Research, Institute of Advanced Education and Retraining of Geological Personnel (see Figure 1).

The primary objective of the institutes is to undertake extensive research focused on forecasting and identifying emerging areas of potential, guided by scientific assessments within their respective fields of expertise, as well as the digitization of maps. While there is no direct link between the academic departments and the institutes, students are offered opportunities to engage in professional internships at the institutes. Furthermore, academically qualified personnel employed at the institutes are eligible to contribute to the academic departments by delivering lectures.

These institutes conduct research and development activities through projects aligned with the vision of the Republic of Uzbekistan in the field of earth sciences. The Ministry of Mining Industry and Geology has outlined specific priorities for these initiatives, including mineral exploration, sustainable resource management, and technological innovation. Within this framework, academics and researchers are encouraged to design and implement projects that address these priorities while also contributing to the broader goals of the ministry.

Additionally, individuals pursuing academic education are actively involved in these projects, providing them with valuable opportunities to engage in practical activities, such as fieldwork and laboratory analysis, and to gain hands-on experience in their areas of study. For example, students at the Institute of Geology and Geophysics participate in mineral mapping projects and hydrogeological surveys, which are key priorities identified by the ministry.

In addition, a Geoinnovative Technologies Center is established within the university to carry out academic and industrial activities with scientific

methods. The center will have a structure where the most advanced methods and technologies can be accessed for the examination of mineral resources, qualified personnel will work, and creative ideas will be produced.

Because faculties and departments fulfill the theoretical mission, the institutes fulfill their practical mission, and the Geoinnovative Technologies Center will support the former missions in a scientific infrastructure, it can be said that the 'University of Geological Sciences' carries out its activities in both a state-centered and research-oriented model structure. Considering that this center is candidate to the ISO 17025 Laboratory accreditation, that can be also occasion for implementation of a market-oriented approach. Because the accreditation required to gain an advantageous position in competitive conditions is preferred in the market-oriented approach model (Fındıklı 2017, 393-394).

When the University of Geological Sciences is examined within the scope of new trends in education, the points that draw attention are as follows.

As of mid-2024, Uzbekistan's population is estimated at approximately 36.36 million, accounting for about 0.45% of the global populace (CIA 2024). This positions Uzbekistan as the most populous nation in Central Asia, comprising nearly half of the region's total population. The country's demographic profile is notably youthful, with a median age of 27 years and approximately 30.1% of the population under 14 years old. Urbanization trends indicate that 48.4% of the population resides in urban areas, reflecting a significant rural demographics. This diverse and youthful demographic landscape presents both opportunities and challenges for Uzbekistan's socio-economic development. Since Uzbekistan's where population is young and has a small dimension according to its geography, it will be inevitable for new generations to increase with the increase in population and therefore to have new demands. The new world is accepted as an information society, education model in this understanding; it keeps both individual research and teamwork approach together. However, the rapidly changing flexible content and understanding based on diversity in higher education will also be valid for Uzbekistan.

The University of Earth Sciences is committed to adapting its institutional infrastructure and education policies to align with the evolving demographic structure of Uzbekistan. To proactively address these changes, its organizational structure includes key departments such as the "Institute of Advanced Training and Retraining of Geological Staff," the "Education Quality Control Department," and the "Department for Youth Affairs, Spirituality, and Enlightenment." These departments play a critical role in preparing for demographic shifts by focusing on staff development, quality assurance, and fostering a supportive academic environment.

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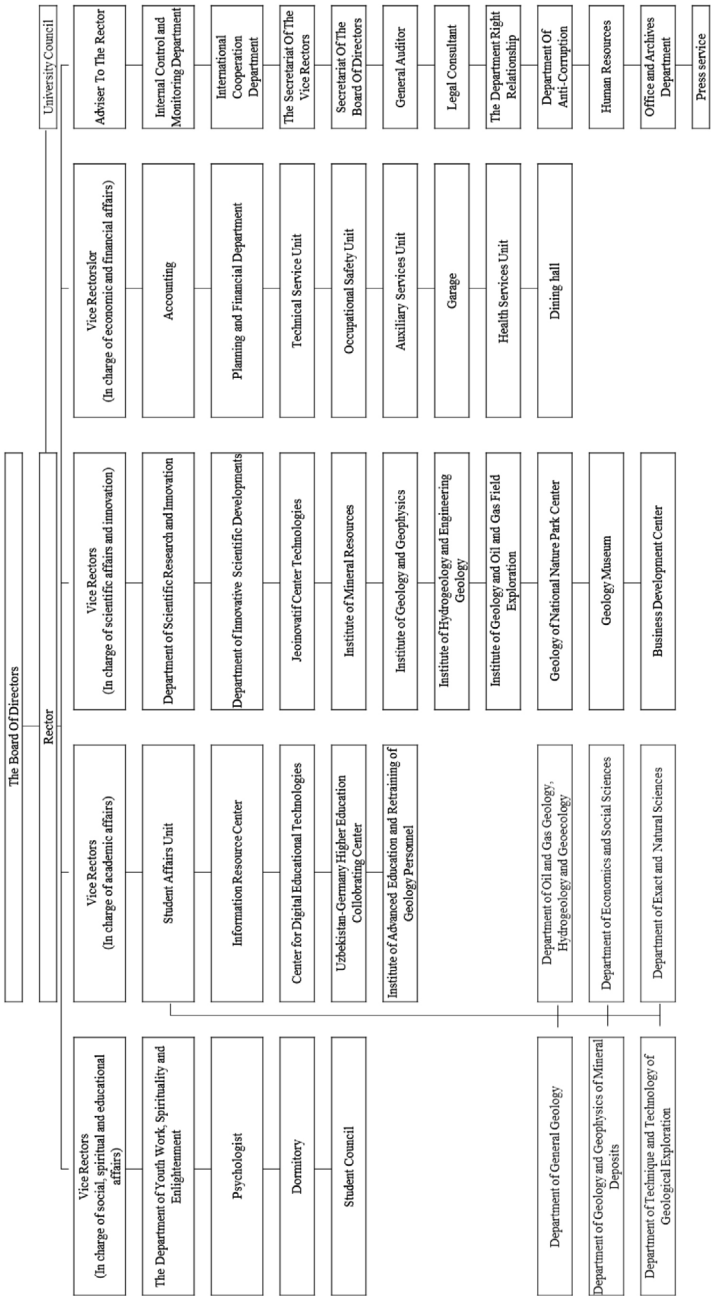

Figure 1
Organizational Chart of University of Geological Sciences

To enhance clarity and demonstrate the proactive missions of these departments, a visual representation outlining their specific roles and objectives has been developed. This graphic highlights how each department contributes to the university's overarching strategy and its positioning within the global academic community. For example, the "Institute of Advanced Training" emphasizes continuous skill enhancement for geological staff, while the "Education Quality Control Department" ensures adherence to international standards in curriculum design and teaching methodologies. Meanwhile, the "Department for Youth Affairs" focuses on creating a vibrant academic culture through initiatives that promote student engagement and holistic development.

Having such units within the university provides a clear and concise overview of the university's strategic approach and commitment to addressing future challenges with a forward-looking perspective.

It has been stated before that the purpose of its establishment is primarily to provide the necessary human resources to the state staff. However, at the end of a certain period of time, it will be inevitable to make plans to train human resources both locally and globally, especially in the private sector, instead of human resources that have become stable in government staff. In this context, the 'Department of Marketing and Student Practice' established within the university is already making plans for the future and showing a proactive approach.

Considering the rapid technological development and digitalization, it can be said that University of Geological Sciences has built a structure that will keep itself ready for change. First of all, it searches for the possibilities of integrating the applications used in the world into its own structure by following the current technologies and developments with the departments such as the 'Center for Digital Learning Technologies' that it has established. In addition, it has made it a continuity to equip its physical infrastructure with state-of-the-art facilities. It provided the establishment of well-equipped laboratories to carry out applied activities, which are an important part of education, and made the planning of new ones.

Leveraging modern technologies such as the internet, access to electronic resources, and diverse learning networks, universities can provide individuals with flexible, efficient, and lifelong learning opportunities tailored to their specific needs. This approach enables learners to pursue education on topics of their interest at any time, from any location, and to the extent they desire. As traditional classroom-based instruction is no longer sufficient to meet the evolving demands of education, this model ensures access to a wide array of diverse and high-

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quality resources. The University of Geological Sciences is well-equipped with the necessary infrastructure to support these advancements and foster a dynamic learning environment.

Since its establishment in 2020, the University of Geological Sciences has aimed to transfer both knowledge and technology through bilateral cooperation with higher education institutions of countries such as Turkey, China and America, especially European countries. It is aimed to have a say in global platforms and to be effective and competent by carrying out international joint projects.

V. Conclusion and evaluation

Uzbekistan's underground resources, with many unexplored fields, position geology and mining as key sectors for the foreseeable future. To support the advancement of these industries, the law aims to ensure the rational use of mineral resources, environmental protection, and safe operations. The Ministry of Mining Industry and Geology oversees these efforts, with preliminary studies conducted between 2017 and 2021. Looking ahead, the focus is on new discoveries targeting 2030 and 2035. Achieving these goals requires investment in human resources, technology, and infrastructure. In this context, the University of Geological Sciences was established within the Ministry to train the necessary workforce aligned with these objectives.

Higher education in University of Geological Sciences is similar to the central model, but a research model approach can also be considered. In addition, considering the objectives of having international standards, it also partially provides the market-oriented approach model.

When the education models of developed countries are examined, it is seen that they have mixed models that have become integrated with each other rather than a single model according to today's conditions. As the University of Geological Sciences, it would be more accurate to develop itself in parallel with the world and to be managed with a unique model, with the priority of its founding goals.

First of all, it should be a priority for it to establish its academic standards and to have a certain academic tradition. In addition, by examining the world-recognized higher education institutions in the field of earth sciences, its own model will be created, where the most suitable ones in Uzbekistan conditions will be represented in the international arena, participatory, academic independence, universal values are considered.

To achieve all these, targets should be determined in priority and sequentially, and a calendar should be established accordingly. These goals are:

1. Making due diligence on geology and mining issues of the Republic of Uzbekistan,
2. Determining short, medium and long-term goals based on the due diligence,
3. Determining the necessary human resources for the determined targets,
4. Preparing qualified trainers to develop the required human resources,
5. Providing appropriate educational infrastructure,
6. Providing education by selecting qualified individuals from the society,
7. Creating the necessary environment for trained individuals to carry out research and development activities, can be said as all these processes need to be carried out patiently and financially supported accurately and adequately.

The University of Geological Sciences was established with a successful organizational structure by making detailed examinations of similar examples in the world and considering the values unique to Uzbekistan. It has an organization that can constantly renew itself and keep up with change, thanks to the many sub-units it has established, especially with the foresight that new trends in education will also have an impact on the future. To achieve its goals and attain greater success, the institution will first fulfill its primary mission of supplying human resources to the public. After that, it should be more academically independent, more in contact with the market. But the most important is that it should be more integrated with world which will help to be in a different approach where models are intertwined.

The establishment of a unique higher education model in the field of earth sciences in Uzbekistan, as well as ensuring the independence of the academy, will increase the quality and quantity of education, research and scientific publications. It should not be forgotten that the main task of universities is to play an active role to meet the expectations of the society in line with the needs of the age.

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