

Analysis of Exogenous Factors Influencing the Development of Educational Services: In Case of Uzbekistan

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Abstract. The development of educational services is influenced by a range of exogenous factors that shape the accessibility, quality, and effectiveness of education systems. This study examines the impact of external determinants such as economic conditions, government policies, technological advancements, demographic trends, and globalization on the evolution of educational services in Uzbekistan. Using a qualitative and quantitative approach, the research identifies key challenges and opportunities arising from these factors. The findings highlight the role of international collaborations, digital transformation, and socio-economic shifts in shaping the educational landscape. The study concludes with recommendations for policymakers and stakeholders to enhance the resilience and adaptability of Uzbekistan's education sector in response to external influences.

Keywords: Education development, exogenous factors, Uzbekistan, policy impact, globalization, digital transformation.

1. INTRODUCTION

Under the influence of global competition in the world, consumer market requirements are changing rapidly, and the introduction of digital technologies is accelerating. As a result, “the idea of brands is now giving rise to a service brand.” [1] The desire to join the modern industrial world requires the training of competitive personnel who can quickly adapt to the needs of the changing labor market, and, in turn, innovations in the higher education system. In the context of globalization, the future of our country cannot be imagined without enterprising, strategically thinking, educated and qualified personnel of the new generation. Therefore, special attention is paid to the development of all areas of education in the world. In the context of intensifying global competition in the world, a number of studies are being conducted aimed at improving the methodology for creating brand capital in the higher education system. The issues of introducing innovative approaches to the formation of OTM brand capital, improving the methodology for assessing the value of intangible assets of branded universities, determining its impact on the overall value of the organization, developing sustainable strategies, determining the specifics of using branding in universities and colleges, using digital technologies in forming brand capital, studying the foundations and scale of the university brand capital and its size using the concept of capital are one of the priority areas of scientific research conducted in this area. In order to bring higher education in Uzbekistan to a qualitatively new level, the concept of developing the higher education system of the Republic of Uzbekistan until 2030 was adopted. This concept provides for measures aimed at training specialists who can find their place in the modern labor market. The concept also provides for a gradual transfer of higher education institutions to a self-financing system, ensuring financial stability and improving infrastructure. The education system is characterized not only by the number of educational institutions, but also by the quality of education, real achievable individual results, social and regulatory requirements for the activities of educational institutions. Therefore, creating the image of higher educational institutions and developing the brand value of higher education institutions is one of the necessary processes through which non-governmental and state higher education institutions will compete. It is assumed that each higher education institution will set itself the task of improving the quality of education, improving the processes of integration with production and, ultimately, training mature, high-quality personnel. In ensuring the implementation of these tasks, it is advisable to improve the methodological basis for the financial assessment of brand capital for the formation of the higher education institution brand, expand the scope of scientific research in the field of the role of brand capital in the national and international markets and cash flows, increasing the amount of net income received on the basis of developing strategies aimed at ensuring added value of the brand.

2. LITERATURE REVIEW

Theoretical aspects of brand and brand equity management, as well as modern trends, are studied by such foreign scientists as A. Aaker [2], K. Keller [3], T. Gad [4], S. George [5], A. Ronald, M. Waqas [6], A. Brzaković.

Issues of creating brand equity in the education system of the Commonwealth of Independent States are studied in the scientific research of such scientists as N.V. Khmelkova [7], T.Yu. Mitrofanova [8], V.V. Vanyushkina [9], V.B. Simonov.

Theoretical and methodological aspects and organizational issues of the brand in the higher education system of Uzbekistan are considered by such scientists as B.R. Adizov [10], A. Askarov [11], G.N. Akhunova [12], B.A. Begalov [13], A.Sh. Bekmurodov [14], K. Gazie [15], S.S. Gulyamov, Sh.N. Zainutdinov [16], M.A. Ikramov [17], N.K. Yuldashev, D.Kh. Nabiev [18], S.T. Norkulov [19], D.N. Rakhimova [20], R.A. Rakhmanbaeva [21], M.Kh. Saidov [22], N. Sodikov, M. Khakimova, Sh.D. Ergashkhodjaeva, K.K. Kurolov.

3. ANALYSIS AND RESULTS

According to the author, the brand equity assessment methodology proposed by Interbrend can be widely used in higher education institutions, i.e., it is used in the financial valuation of university brands and in the analysis of brand strength. The Interbrend Assessment Method is a tool that allows a higher education institution to measure its reputation, attract students and additional funding, develop a brand strategy, and assess risks.

Several methods can be used to assess university brand equity:

1. Financial assessment of the Higher Educational Institution.
2. Assessment of the reputation of the HEI.
3. Analysis of graduates of higher educational institutions.
4. Marketing research.
5. Ratings and rating agencies.
6. Opinions of students and graduates of higher educational institutions.
7. Research of the industry's largest representatives and employers.
8. Analysis of scientific productivity.
9. Social media monitoring.

The combination of various methods can provide a more complete and objective assessment of the university's reputation. It should be noted that assessing university brand equity is a complex and subjective process. To obtain a complete and more objective picture of this, various methods are often used.

The process of compiling the QS World University Ranking includes several stages and is based on data collection and analysis. This process is described as follows:

1. Data collection: QS receives necessary information from universities for evaluation and ranking. This information includes data on scientific publications, citations, student numbers, faculty, budgets, and indicators used to assess the quality and reputation of universities.
2. Academic Survey: QS conducts a survey of academic staff who evaluate universities in their field of specialization. These specialists assess the quality and reputation of universities based on their experience and knowledge.
3. Employer Survey: Employers conduct surveys to gain insights into university graduates and assess how universities prepare students for future success. Employers' feedback is taken into account to assess the reputation of the HEI before employers.
4. Analysis of scientific publications: QS uses scientific publications databases such as Scopus to obtain information on the quantity and quality of scientific articles published by university researchers. This includes citation data that allows us to assess the university's contribution to the academic community and its impact.
5. Consideration of international factors: considers international aspects such as the proportion of foreign students and teachers, as well as international cooperation between universities. This reflects the university's international attractiveness for students and scholars from around the world.
6. Indicator Effect: Each indicator is significant, which determines its contribution to the overall rating. The level of indicators is determined in consultation with research, experts, and stakeholders.
7. Ranking calculation: After collecting data and accounting for all indicators, QS calculates the overall ranking of universities. Then, universities are ranked according to this ranking, and the results are published in the QS World University Ranking.

It should be noted that the QS World University Ranking is one of the many university rankings, and each ranking uses its own methodology and indicators.

The Times Higher Education (THE) World University Ranking is one of the leading international university rankings that uses its unique methodology to evaluate and rank educational institutions. Below is a detailed description of the rating process:

1. Data collection: collects a wide range of data from universities, including data on research, educational activities, financial results, and university reputation.
2. Evaluation indicators: Several key indicators are used to evaluate various aspects of the university's activities.

3. Conducting surveys among researchers and employers to gather opinions and assessments about the university's reputation and the quality of education. These surveys help to take into account the opinions of specialists and employers when compiling the rating.
4. Data analysis: After data collection, they are analyzed and processed using appropriate methodology and indicator levels to calculate the university's overall rating.
5. Ranking calculation: Based on indicators and collected data, the overall ranking of universities is calculated. Then, universities are sorted according to this ranking, and the results are published in the World University Rankings.

In the third chapter of the dissertation "Analysis of the transformation and development trends of the higher education system in Uzbekistan," a classification of modern university models as a factor in the formation of brand equity in higher education institutions is given. In addition, trends in the transformation and development of the higher education system in Uzbekistan, as well as the processes of forming the brand capital of higher education institutions, were analyzed and the conclusions were summarized.

In recent years, significant changes have occurred in the development of the higher education system in Uzbekistan. Some of the main trends and changes were studied by the author within the framework of this scientific work.

According to statistics, in 2023, the volume of education services reached 20,418.4 billion soums. Compared to 2022, the growth rate was 122.8%. This shows that the number of students in higher educational institutions of the Republic of Uzbekistan has significantly increased in recent years.

In the indicated years, a steady increase in the number of students entering universities was observed (Table 2). This growth can be explained by several factors, including the government's efforts to expand access to higher education, increased attention to education in Uzbekistan, and increased demand for qualified specialists in various sectors of the economy.

Table 1: Number of students in higher educational institutions of the republic, by year

Years	Number of students (thousands)
2017/2018	140,2
2018/2019	192,3
2019/2020	244,0
2020/2021	571,5
2021/2022	808,4
2022/2023	1,042

The educational services presented in Table 3 cover higher, secondary specialized, vocational, general education, commercial education in state preschool educational institutions, as well as any level of private education and training in the desired profession, with the addition of radio and television, internet channels, and postal services.

The significant growth from 2017-2018 to 2021-2022 indicates an increase in Uzbekistan's population's interest in higher education and the potential of universities to admit students. This trend reflects the country's focus on developing human capital and expanding educational opportunities for its citizens. In the total volume of services in the field of education, higher education services prevail. In January-December 2023, their share was 56.5%.

Table 2: Educational Services by Region, 2023 [23]

Regions	Volume, billion soums	Growth rate, in %
Tashkent city	9 328,2	+ 24,4
Samarkand region	1 578,7	+ 27,9
Fergana region	1 274,1	+ 18,4
Andijan region	1 142,7	+ 22,6
Bukhara region	1 114,0	+ 51,5
Namangan region	903,4	+ 27,4
Kashkadarya region	871,8	+ 29,0
Republic of Karakalpakstan	801,6	+ 0,5
Surkhandarya region	797,4	+19,1
Tashkent region	765,3	+11,3
Khorezm region	741,7	+12,2
Jizzakh region	445,2	+ 7,6

Navoi region	418,2	+18,1
Syrdarya region	236,1	+7,2

In 2021, the number of HEIs was 152, and by February 2023, their number reached 209 and increased by 35% compared to previous years (4-table). As of February 2023, the number of foreign branches of higher education institutions was 30. Until 2017, youth coverage in the republic was only 9%, while by 2023 it had reached 38%. The Ministry of Higher Education, Science and Innovation plans to increase this figure to 50 percent by 2026.

Over the past few years, the number of students in higher educational institutions of the Republic of Uzbekistan has increased. According to the above data, from the 2017-2018 academic year to the 2021-2022 academic year, the number of students increased from 140 thousand to 461 thousand people.

Table 3: Number of higher educational institutions and their structure in Uzbekistan in 2021-2023

Type of higher education institution	2021 y.	2022 y.	2023 y.
University	27	28	36
Institute	45	47	48
Academy	3	3	5
Conservatory	1	1	1
Branches	29	26	24
Branches of foreign higher education institutions	29	30	30
Private higher education institutions	18	24	65
Total	152	159	209

The increase in the number of students testifies to the growing interest of the population of Uzbekistan in higher education. The demand for education is constantly increasing, as modern labor markets desperately need highly qualified personnel. Young people strive to receive education that will help them successfully compete in the labor market and improve their future careers.

Taking into account exogenous factors, the projected number of students in 2030 is presented in Table 5. For this, it is important to consider the following factors:

Taking into account exogenous factors, the table 5 shows that the number of students can be predicted by 2030. For this, it is important to consider the following factors:

- population size and its growth rate;
- economic growth and increase in income;
- education policy and reforms;
- the level of interest of young people in education.

First of all, it is necessary to take into account the population size and age structure. According to the UN, in 2020 the population of Uzbekistan reached 33.5 million people, and by 2030 it is projected to approach 41 million. At the same time, an increase in average age is expected.

Firstly, the population, economic growth, and funds allocated to the education sector in Uzbekistan are steadily increasing. This, in turn, has a positive impact on the development of the higher education system. These trends are expected to continue in the future, and further reforms will be implemented to improve the quality of education.

Table 4: Basic information for the analysis of exogenous factors

№	Exogenous factors	Analysis (2017)	Analysis (2022)
1.	Population dynamics (annual growth rates)	0–14 years: 32 % 15–64 years: 62 % 65+ years: 6 %	0–14 years: 29 % 15–64 years: 65 % 65+ years: 6 %
2.	0–14, 15–64, 65+ age groups	Average growth rate in GDP 2017-2022 y. 1,5%.	
3.	Population growth rates	\$50 billion	\$70 billion
4.	Gross domestic product (GDP)	\$1,550	Average GDP growth rate is 7%
5.	GDP per capita	6.2% of GDP	\$2,000
6.	Education expenditure	\$1 billion	7.5% of GDP

Secondly, it is important to consider economic growth and income levels. According to the World Bank, Uzbekistan's GDP will reach \$71 billion in 2022 and will grow by an average of 5-6% annually. The incomes of the population are also growing.

Thirdly, the influence of education policy and reforms should be noted. The government of Uzbekistan is implementing a number of programs, including measures to increase the number of private higher education institutions, provide loans, and improve the quality of education.

Fourthly, the level of interest in education among young people is increasing, and this trend can be predicted to continue.

4. CONCLUSIONS

As a result of the study conducted using the methodology of brand equity management of higher education institutions in the context of the transformation of the educational system, the following conclusions were made:

1. The concept of development of the higher education system of the Republic of Uzbekistan until 2030 presents the principles of increasing the attractiveness of higher education; competitive advantage in ensuring competitiveness at the international level, further improvement of sponsorship financing in the labor market; support of talented teachers and researchers, long-term stability and development, internationalization and global rankings, attracting graduates and networking, cooperation and partnership with higher education institutions, flexibility and viability.
2. Thanks to the combination of qualitative, quantitative and communicative characteristics, the brand occupies a certain place in the minds of a number of consumers of specialized higher education institutions. The competitiveness of the university, its brand identity and recognizable image among consumers stand out for their advantages among competitive universities. The cost of its intangible asset is of exceptional value, providing a competitive advantage.
3. To develop the brand capital of a university, it is advisable to use the clustering method based on the attributes of the university brand, and on the Likert scale, it was proposed to evaluate on the basis of such attributes as academic reputation, innovation and technology, social responsibility, independent development of students, and international cooperation.
4. In the higher education system of prestigious universities in the United States, such as Harvard and Stanford University, Massachusetts Institute of Technology, as well as other advanced foreign countries, the emphasis is on the formation of intangible value in brand capital management. Universities strive to enhance their reputation, develop strategies to attract international students, use advanced technologies and innovations. This allows them to attract talented students from all over the world, strengthen their brand and be competitive internationally.
5. According to the author, the set of basic elements that make up a university brand represents its intangible capital. It is a set of intangible assets and resources that have long-term value for students and other stakeholders and are the basis for creating a sustainable competitive advantage for the university. The brand capital of a university is a broader concept, a function that reflects intangible values that can change in the course of the educational, scientific and social activities of the university.
6. According to statistics, in our country in 2018, 24,368 professors and teachers (of which 7,766 have an academic degree) taught students. By 2022–2023, these figures have changed and grown rapidly, that is, the number of professors and teachers reached 41,693 people. If we consider higher education institutions by region, 82 higher education institutions began work in Tashkent and 109 in other regions. According to the results of 2023, the total number of students in the country was 1,042,100 people.
7. According to the results of the study, as of 2022, 41 higher education institutions received financial academic independence. They have received additional powers and independence in the field of academic and organizational management on the basis of self-financing. For citizens with work experience and experience, the opportunity has been created to study at a higher educational institution without an exam and on the basis of an interview on the recommendation of higher organizations of the enterprise where they work. The forecast for the number of students at the university until 2030 indicates a steady and significant growth (2,085,500 students), which indicates the growing popularity and attractiveness of the university.

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