

# Chapter 17

## Distance Education as a Mechanism of Bridging the Gap Between the University Education Market and the Labour Market



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### 17.1 Introduction

The appearance of problems in the labour market is connected with many negative factors, which emerge as a result of the formation and transformations of the accompanying spheres. The market of university education is a sphere which functioning defines the possibility of employment of university graduates and support of demand in the labour market and economic growth. Universities are not the main drivers of the effective development of the labour market, but play a decisive role in the growth of quality of the labour resources of companies, sectors of the economy and the country on the whole. As for the practical experience of the university education market from the position of the effectiveness of the labour market, there is a condition that involves the balance of their coordinated development, linked to the necessity to ensure the offer of quality training of labour resources for satisfying the demand. If the offer and demand are not balanced, there emerges a gap, further growth of which might lead to negative socio-economic consequences. Due to the insufficient level of formation of the labour market and the quality of the university education market, developing countries demonstrate the growth of the gap at the level of these two indicators. In the 2020s, countries of Central Asia, similar to many developing countries, faced the negative influence of the gap at the level of the university education market and the labour market. It is necessary to develop and implement productive measures that would allow improving the economic situation

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and ensuring the growth of citizens' well-being. One of these measures is the implementation of programmes and projects of distance learning of students, post-graduates, and company personnel at the level of universities, individually, and with the involvement of public-private partnership.

The goal of this paper was to consider the directions and capabilities of distance learning as a mechanism of bridging the gap between the two considered markets. For this, we determined the main characteristics of the gap in the context of the indicator of demand from the labour market and offer from the university education market and assessed the features of implementing distance education in the selected countries.

## 17.2 Materials and Method

To reach the goals of this paper, we analysed literature sources on the use of distance learning in countries of Central Asia and its influence on the reduction of the gap between the university education market and the labour market. Izawa et al. analysed the formation of the education market (including higher education) in countries of Central Asia, with particular attention paid to Tajikistan (Izawa et al., 2021). The authors point to positive results and problems that hinder the growth of the quality of the education market in these countries according to the realities of the modern market economy. Khibina et al. elaborated on the features and problems of the transition to distance learning in the universities of Kazakhstan and discovered the complexities and directions for adapting first-year students to this process (Khibina et al., 2022). Csavdari et al. assessed the quality of development of the educational programmes of Kazakhstan's universities with a focus on the use of distance learning and performed an analysis of the correspondence of these programmes to the requirements of students' training in modern conditions (Csavdari et al., 2021). Kayumova et al. studied transformations of the system of university education in Uzbekistan and analysed the effectiveness and problems of reforms in this sphere (Kayumova et al., 2022).

The provisions of the analysed materials allowed identifying the aspects of the considered problem in the selected countries. However, it is necessary to perform a comparative analysis of the modern state of this issue.

Implementation of these tasks involves the use of a range of methods. Scientific abstraction was used to determine the features and characteristics of distance learning, which is used in these countries, determine through distinguishing the key data from the materials of the theoretical and empirical studies. The trend method allows determining the directions of distance learning used to bridge the gap in this sphere.

The model of assessment of the gap also implies the identification of the difference between demand from the labour market of the country and offer, which is formed by the university education market at the national level. This assessment is performed with the use of the quantitative method and parametric indicators.

### 17.3 Results

Let us consider the key characteristics of the gap that was formed in the context of the imbalance of the indicator of the labour market and university education market in countries of Central Asia (Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, and Turkmenistan). Table 17.1 presents the quantitative assessment of the considered indicator.

The five selected countries have different characteristics of the gap at the level of offer from the university education market and demand from the labour market. This gap emerged based on the historically formed structure of the economy, the highest innovativeness of which and implementation of new types of economic activity are observed in Kazakhstan. Kazakhstan demonstrates more attractive opportunities in the market of university education and in the labour market. The other four countries are peculiar for the absence of balance between the analysed indicators, which is caused, according to (Izawa et al., 2021) by the insufficient interaction between universities and employers.

Distance education is an important mechanism of bridging the gap between two analysed indicators, which is connected with the possibility of remote receipt of knowledge and its improvement. Implementation of distance learning at the level of universities also solves the problem of people, who, due to lack of free time, cannot obtain a university education. Due to historical traditions, women of the Central Asia region have to devote most of their time to family, which hinders the

**Table 17.1** Level of the gap between the labour market and the university education market in countries of Central Asia

No.	Indicator	Value of the indicator				
		Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Turkmenistan
1	Number of vacancies	More than 400,000 vacancies over 2022; 68,300 vacancies available as of late December 2022	634.22 (2021)	15,000 (2022)	51,000 (2022)	96,000 (2021)
2	Number of the unemployed registered in the labour market as job seekers, thousand people	70.2 (as of late December 2022), including university graduates 70% (49.1)	1441.8 (2021), including university graduates - 60% (865.08)	76 (2022), including university graduates -50% (38)	56 (2022), including university graduates -60% (33.6)	101.85 (2021), including university graduates - 75% (76.4)

(continued)

**Table 17.1** (continued)

No.	Indicator	Value of the indicator				
		Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Turkmenistan
3	Estimated increase in the number of the employed	947,800 (2023)	2,000,000 (2023)	No data	No data	No data
4	The gap between the demand in the labour market and the offer from the university education market	19,200, including university graduates 70% (13,400). Insufficient level of offer from the university education market	–807,580, including university graduates –60% (484,500). Insufficient level of demand from the labour market, in certain sectors and insufficient offer for certain specialities from the university education market, low quality of the latter	– 61,000 (according to the materials of the official labour market, with the existence of an unofficial one), including university graduates –50% (30,500). Insufficient level of demand from the labour market, in certain sectors and insufficient offer for certain specialities from the university education market, low quality of the latter	– 5000 (according to the materials of the official labour market, with the existence of an unofficial one), including university graduates –60% (3000). Insufficient level of demand from the labour market, in certain sectors and insufficient offer for certain specialities from the university education market, low quality of the latter	–5850 (according to the official data), university graduates –75% (4400). Insufficient level of demand from the labour market, in certain sectors and insufficient offer for certain specialities from the university education market, low quality of the latter

(continued)

**Table 17.1** (continued)

No.	Indicator	Value of the indicator				
		Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Turkmenistan
5	The character of the perspective of the gap	Possibility to achieve the balance due to growth of the university education market, increase in its quality and structure.	Perspectives of reduction of the gap due to the increase in quality of the university education market, development of the economy and emergence of new jobs (according to the country's strategy)	The need to ensure conditions for improving the openness of the economy, which will lead to the growth of the official labour market	The need for the development of new types of economic activity, support of the openness of the labour market, and an increase in the quality of university education	The need to form new specialities and types of economic activity, the need to raise the quality of students' training
6	Unemployment rate, %	4.8% (2022)	9.6% (2021)	5.3% (2022)	7.8% (2021)	5.1% (2021)

*Source:* Formed by the authors based on Aktualno.uz (2023), Astanatimes (2022), Batishchev (2022), Bluescreen.kz (2023), Ifmr.uz, (2023), Inform.kz (2023), Knoema, (2022), Ru.sputnik.kz (2022), Stat.kg (2023), Stat.uz (2022), Take-profit (2023), Tradingeconomics (2022), Uz.kursiv (2022)

development of their potential in other spheres. Each of the five countries of Central Asia has different levels of distance learning in the system of university education.

Analysis of the empirical materials of (Khibina et al., 2022) showed that in 2020–2021, students in Kazakhstan started actively using the distance form of learning. In the 2020–2021 academic year, the indicators in universities were as follows: learning with the use of Internet technologies—42.4%; use of educational and methodological resources in the electronic form—39.4% of students; traditional learning without the use of ICT—57.6% of students. A relatively low level of transition to distance learning is an obstacle to receiving knowledge and skills during pandemics, e.g., the COVID-19 pandemic (2020), and does not allow students to receive the latest educational, methodological, practical, statistical, and analytical materials. In Kazakhstan, only 16% of students think that distance learning enhances the quality of studies and the formation of skills for practical activities; more than 50% of students do not support distance education because of the low level of interaction at the levels of student-teacher and student-student; more than 10% students do not support distance education because of the lack of free time, which according to them, they had during traditional education in universities (Khibina et al., 2022).

According to (Csavdari et al., 2021), the attitude of students in Kazakhstan to distance learning was formed by the insufficient quality of methodological materials and study guides in the electronic form, the insufficient level of technical

readiness of universities and students to the use of modern technologies, and insufficient level of mastering of ICT among students and teachers.

During the COVID-19 pandemic, all universities in Kyrgyzstan were able to perform a transfer to the distance form of education (Ism.edu.kg, 2023), which is still used together with the traditional form. The need for a quick transition to the distance form of education led to an increase in the mastering of ICT among students and teachers, but the system of university education did not ensure the necessary level of students' adaptation to the use of electronic resources (24.kg, 2021). The level of distance learning in Kyrgyzstan's universities requires certain improvements.

Higher educational establishments in Tajikistan also implemented distance learning. The best results in this were achieved by technical universities or departments of technical sciences (Tajikistan24, 2022). The topical spheres for improvement are technical, technological, organisational, and scientific & methodological preparation of integrating the system of university education for the use of distance elements of education.

Uzbekistan is focused on the implementation of digital technologies in most sectors of the economy and life activities. The COVID-19 pandemic became a driver for the active digitalisation of the system of university education. However, it is still necessary to enhance the competencies of teachers and students' skills.

According to (Progres, 2022), the system of Turkmenistan's university education does not ensure the sufficient competitiveness of university graduates. The structure of the country's economy, focused on mining industries, does not conform to the structure of university graduates, who are oriented toward the services sphere. This is a reason for the gap between the labour market and the university education market. Such a mismatch is connected with low communication at the level of the economy, science, and education. Sectors of the economy, which ensure the employment of university graduates, set requirements for the knowledge and skills of applicants. Many applicants do not meet these demands, so companies often have to employ insufficiently qualified personnel. Because of the legislative problems with employing citizens with foreign university diplomas, companies very often cannot attract skilled and talented personnel who would possess knowledge and experience in the digitalisation of processes and development of innovations (Progres, 2022). This approach does not facilitate economic growth and the development of digitalisation in the industry.

## 17.4 Discussion

Analysis of the features of implementing distance learning in universities of the Central Asia countries, as a mechanism of bridging the gap between the labour market and the university education market showed the following.

Though Kazakhstan has the least negative characteristics of the gap, the state of distance education in the country's universities requires further improvement. The main features of the insufficient implementation of distance education in the

country's universities are connected with technical and technological barriers; absence of knowledge about the advantages of education digitalisation; problems with mastering of ICT among university teachers and students. Dealing with these barriers should lead to improvement in the level of Kazakhstan's economic development and reformation of the system of university education.

Due to various reasons, Kyrgyzstan was not able to provide the necessary skills and knowledge on the work with electronic resources to students. This led to the deterioration of the quality of university education. This problem might be solved through partnership between the government and universities, with the involvement of entrepreneurship, which could participate in quality training of labour resources and the formation of the technological and technical basis of universities. It would be also expedient to attract foreign companies that function in Kyrgyzstan since their experience in personnel training could be adapted in the sphere of distance learning in the country's universities.

Uzbekistan's problems in the transfer to distance education are similar to Kyrgyzstan's issues. Significant problems emerge due to the low-level mastering of digital knowledge and support for the educational process under the conditions of digitalisation. This led to the factual level of the gap between the two markets. To solve this problem, it would be expedient to use public-private partnership and involve international funds and organisations that would allow raising the level of universities' readiness for digital transfer.

Turkmenistan does not allow national companies to hire citizens with foreign diplomas. Such a protectionist position of the countries in the sphere of management of the labour market and the university education market creates problems in the sphere of employment and growth of the economy.

Tajikistan, like all countries of Central Asia, should ensure attractive conditions for the development of distance learning. This requires reconsideration of reforms in this sphere, audit of the quality of university education and its correspondence to the needs of the labour market, and development of measures on the optimisation of introducing distance elements of education as preconditions for the reduction of the gap between the two markets.

## 17.5 Conclusion

The performed research demonstrated that the gap between the labour market and the university education market and the development of distance learning in universities of Central Asia countries are connected to a range of systemic problems, the resolution of which will allow ensuring the growth of employment and economies of these countries. The problems are largely predetermined by the historical experience of the organisation of the system of university education, which was separated from the market needs, low quality of development and implementation of innovations in the training of students, and structure of the economy, characterised by the focus on commodity spheres and low quality of labour resources.

The problem of the existence of the gap and the insufficient level of distance learning of students belongs not only to this sphere—it also influences the countries' results and prospects for quick economic growth and an increase in citizens' well-being. It is necessary to make countries attractive to the young population, which is oriented toward self-realisation and career growth. The inability to solve these problems in the long term might lead to the mass flight of the youth and reduction of the economically active population, which should be avoided.

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