ISSN Print 2789-8253
ISSN Online 2789-8261
Volume 56, No. 2, 2020

Eurasian Journal of ECONOMIC & BUSINESS STUDIES

Eurasian Journal of **ECONOMIC & BUSINESS STUDIES**

#2 (56)-2020

ISSN Print 1990-5580
ISSN Online 2518-7961
DOI - 10.47703/ejebs.v2i56
#2 (56)-2020

Registration number – ISSN 1990-5580.

e-mail: info@ejebs.com

Address: Almaty city, Abay avenue 8a
(corner of Nazarbayev St.)

Phone: +7 (727) 259-80-33

Fax: +7 (727) 259-63-20

The scholarly journal has an international importance and is registered in the ISSN International centre in Paris.

Eurasian Journal of Economic and Business Studies (EJEBS) welcomes both theoretical and empirical research and encourages multidisciplinary and comparative studies. With a high quality and distinguished international editorial board, the journal is aiming to add contributions to scientific development in Eurasian region.

Eurasian Journal of Economic and Business Studies (EJEBS) is a peer-reviewed scholarly journal that publishes quality interdisciplinary research focusing on business, entrepreneurship, economics, management and law. Initially launches as a publication outlet for business research focusing on Europe and Asia, the journal also considers scientific works related to other emerging markets and regions.

The aim of the journal: to promote economic, business, and interdisciplinary studies, reflect the core academic approaches/trends and research findings/discussions.

The main directions of the EJEBS publications:

- International business and entrepreneurship,
- Hospitality and tourism,
- Marketing and management,
- Organizational behavior,
- Economics, banking, investment, finance, and accounting,
- Innovation and sustainable development,
- Corporate social responsibility and business ethics,
- International economic relations and politics,
- Education and intercultural learning.

To identify plagiarism, the Editorial Board uses the licensed anti-plagiarism detection system StrikePlagiarism.com (strikelagiarism.com).

CONTENTS

DOI – 10.47703/ejebs.v2i56.13

IRSTI 06.77.65

Analysis of Labor Migration Processes in Kazakhstan: The EAEU Context

Alina Rakhmatullina, Dinara Yermekbayeva, Aisha Aidossova

University of International Business, Kazakhstan

Abstract

The goal of this paper is to analyze the migration processes of Kazakhstan in the EAEU context by exploring main labor migration indicators of the Republic of Kazakhstan. The paper seeks to discuss the general reasons of migration processes from Kazakhstan to the EAEU. Discussion of the migration process causes seeks to analyze indicators related to the labor migration.

The comparative analysis method was used for conducting the research and to analyze the main labor migration indicators as migration indicators by education, specialties, balance of international migration, number of involved immigrants. Data analysis sought to identify and understand the main causes of migration processes. The provisions and conclusions are illustrated by statistical data presented in tables, diagrams, accompanied by references to scientific literature and legal acts.

A detailed study of labor migration indicators allows us to judge the effectiveness of the policies of states that are as considered economic processes that represent objective opportunities for realizing the opportunities of both an individual and the population as a whole. According to the study, authors identified the most important specialties and education level in migration process and the proportion of immigrated labor migrants.

Novelty and value of the study is as follows. The paper signals to government about brain drain in some specialties and people with specific education level and offers to revise the policy.
Findings suggest that government may undertake retention of citizens with specific education level and profession.

Keywords: migration in Kazakhstan, labor migrants, EAEU countries.

Introduction

The labor market is a fundamental factor in the economy of any country. The population growth rate depending on the degree of development of the global economy.
The labor market and the economy at the interstate level. In the context of deepening global and global processes in the world, which are manifested in interdependence, various labor markets operate in the country and in its countries, as well as markets for goods, services and capital.

The common labor market of the Eurasian Economic Union is something qualitatively new. National labor markets are losing their isolation, isolation and integrated labor market. It is based on the mobility of citizens of states, military personnel in the Eurasian Economic Union, secured instruments of coordinated migration and social policy, international legal framework for regulating the labor market, which are focused on maintaining a balance of economic and social interests of the countries of the integration union.

Literature Review

The demographic aspect and migration issues are the strategic areas for internal development, regional and interregional cooperation, as well as maintaining international stability and security of Kazakhstan.

Based on the position that in the process of migration, there is not only a territorial movement of labor, but also the accumulation and movement of information, labor migration can be defined as any significant change in the system of migration relations. The labor migration thus understood is organically included in the context of global problems and, above all, problems associated with the formation of a single economic, information and cultural space. Today, international labor migration is one of the most significant aspects of the intensive globalization of the global economy (Cherevichko, 2009).

According to the Message from the President of the Republic of Kazakhstan the priority directions of migration policy are fixed by the basic law and within the framework of the new development strategy "Kazakhstan-2050", which defines the global demographic imbalance as the second of the ten global challenges of the 21st century and actualizes the problems of the stability of migration processes.

Along with this, one of the priority directions and tasks of the foreign policy of the Republic of Kazakhstan for 2014–2020 is the assessment of Eurasian economic integration as one of the effective ways to promote the country to stable positions in the system of world economic relations.

International migration in the Eurasian Economic Union is one of the main factors in ensuring the sustainable socio-economic and demographic development of the EAEU member countries. On the one hand, migration compensates for demographic losses and reduces the burden on the social security system in the countries of the Union that are at risk of depopulation and shortage of labor resources, on the other hand, it allows maintaining political and socio-economic stability in labor-surplus countries with high rates of natural population growth and economic stagnation.

In this regard, the development of common approaches to the regulation of the EAEU migration processes and the formation of a common labor market along with the removal of barriers to the movement of goods, services and capital has become a significant achievement of the Eurasian integration process.

Methods

Different indicators on migration were discussed to analyze the migration processes of Kazakhstan within the framework of the EAEU. We should note that over the years of independence, Kazakhstan has gone through various stages of migration processes: from active and intensive to relatively regulated. During this period, various trends took place in migration, depending on the form, motives, and timeframe. According to the report of the EAEU "Labour migration and social security for workers in the Eurasian Economic Union" (2019) the migration flows of the country were influenced by both socio-economic development and the gradual change of cultural values.

Analysis/Findings

A detailed study of labor migration indicators allows us to judge the effectiveness of the policies of states that are as considered economic processes that represent objective opportunities for realizing the opportunities of both an individual and the population as a whole.

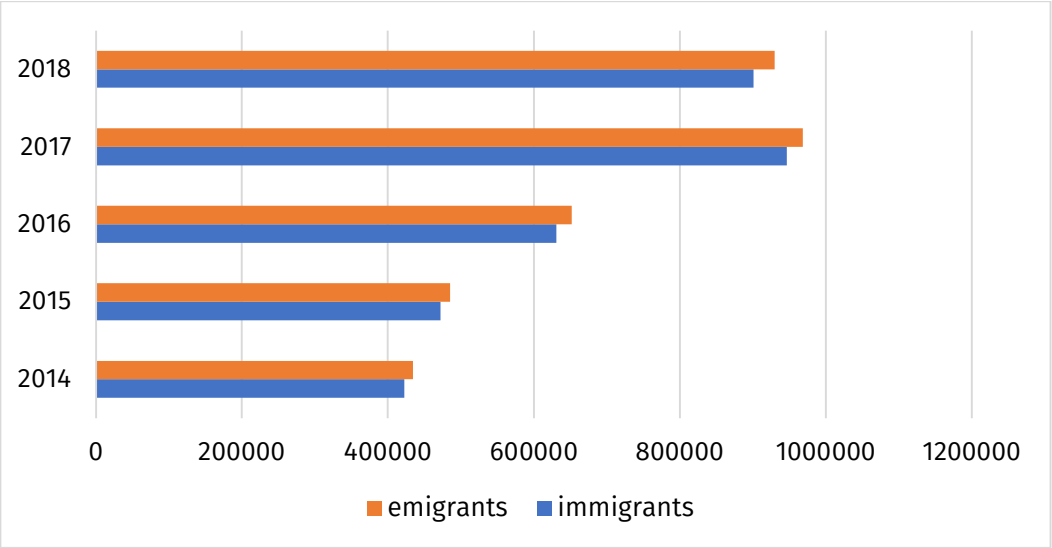

Figure 1. General migration in Kazakhstan

Source: Compiled by the authors based on the RK Committee on Statistics http://stat.gov.kz

The number of overall migrants in Kazakhstan has continued to grow over the past five years, reaching its peak in 2017 (immigrants - 946 hundred, emigrants - 968 hundred). During the period 2014-2018, the average annual growth rate accelerated, reaching 23 per cent. As you see in the figure 1, the number of emigrants prevail over immigrants in the specified period. In general, according to the study by research institute 12.7% of respondents were planning to leave the country and only 5.3% wanted to go to foreign countries in 2018. In general, most often Kazakhstani migrants go to Russia due to affordable and better higher education and sometimes even guaranteed job after graduation. Consequently, we may say that social and economic factors are at the forefront for citizens.

As we said before, the EAEU is a project of economic integration, in which an important place is given to the functioning of a unified labor market and employment, the focus of interstate cooperation is focused on managing international labor migration (Gaeva, 2018).

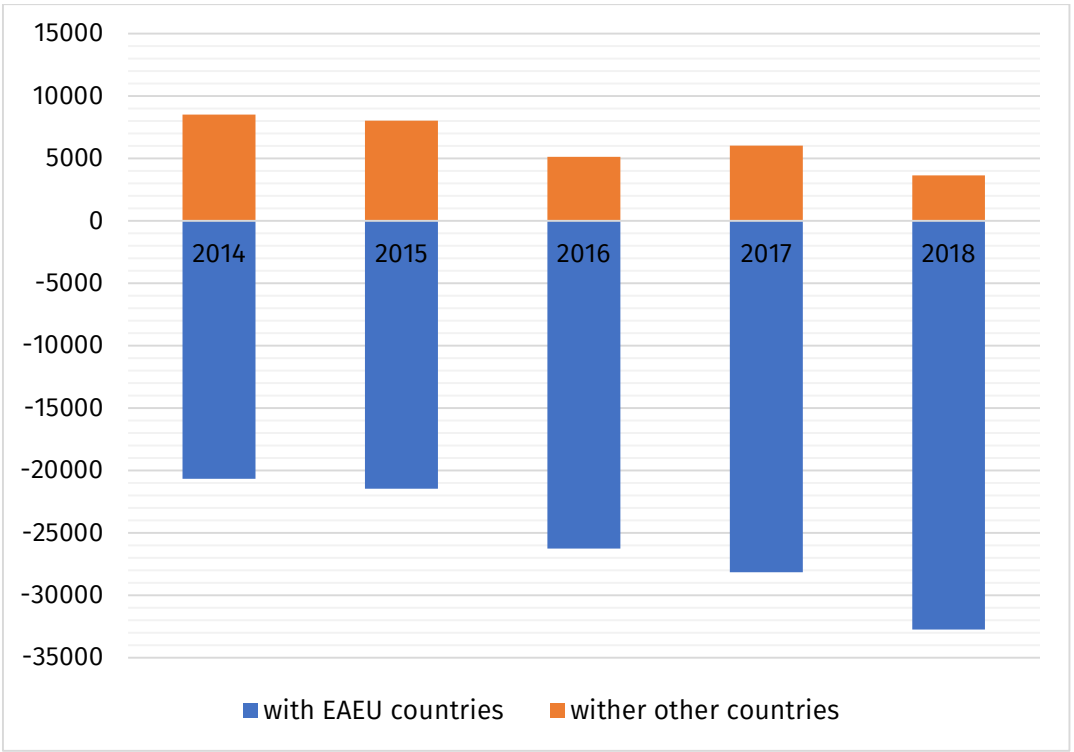

Figure 2. Balance of international migration

Source: Compiled by the authors based on the RK Committee on Statistics http://stat.gov.kz

The figure 2 shows us the balance of international migration in Kazakhstan. According to the report "Labor activity and social security for citizens of the Eurasian Economic Union in the Member States" (2019), the immigrants from other countries are 2 times more than from EAEU members. However, at the same time we observe the opposite position about emigrants. Because according to statistics number of emigrants that go to the Union is 7-8 times more than those who migrate to other countries. The reason for this is may be the good conditions for migrants from participating countries.

The migration dynamics of the working-age population largely depends on the following circumstances: situations in areas of departure (extreme or normal); the situation in the areas of invasion (the state of economic, social, natural and other factors); the legislative base on migration issues (at the regional level, it is practically absent); the availability of organizational means (institutions for organizing the comprehensive adaptation of migrants and their employment); the possibility of financing the relocation and arrangement (Cherevichko, 2014).

There is a point that we must note that according to the Treaty on the Eurasian Economic Union, in which section XXVI introduces a number of preferences for migrants from participating countries.

In particular, they are not covered by measures to protect the national labor market and migration registration rules, according to which they are required to register and find work within 30 days. For employment in the host country of the Union, they do not need to draw up the relevant permits: access to employment is carried out on an equal basis with the citizens of the recipient country, and the length of stay of the employee and members of his family is determined by the period for which an employment or civil law contract was concluded with the employer. If the contract was terminated after 90 days, then the foreign worker without the need to leave within 15 days has the right to conclude a new contract.

Social security (social insurance) of migrant workers is carried out in accordance with the legislation of the state of employment; the labor (insurance) experience of

workers is counted in the total labor (insurance) experience for the purposes of social security (social insurance) in accordance with the legislation of the state of employment since 2015.

An equally important point is the mutual recognition of educational documents without appropriate accreditation procedures. Due to Treaty on the Eurasian Economic Union this greatly simplifies the entry of migrants from the EAEU member countries into the labor market of the host state, allows them to obtain a working position with more favorable conditions, according to their specialty and qualifications. Outside of this situation is the field of medicine, teaching, law and pharmaceuticals, because of the increased social responsibility of specialists in these areas, but also to the existing differences in the educational and professional systems of the EAEU countries.

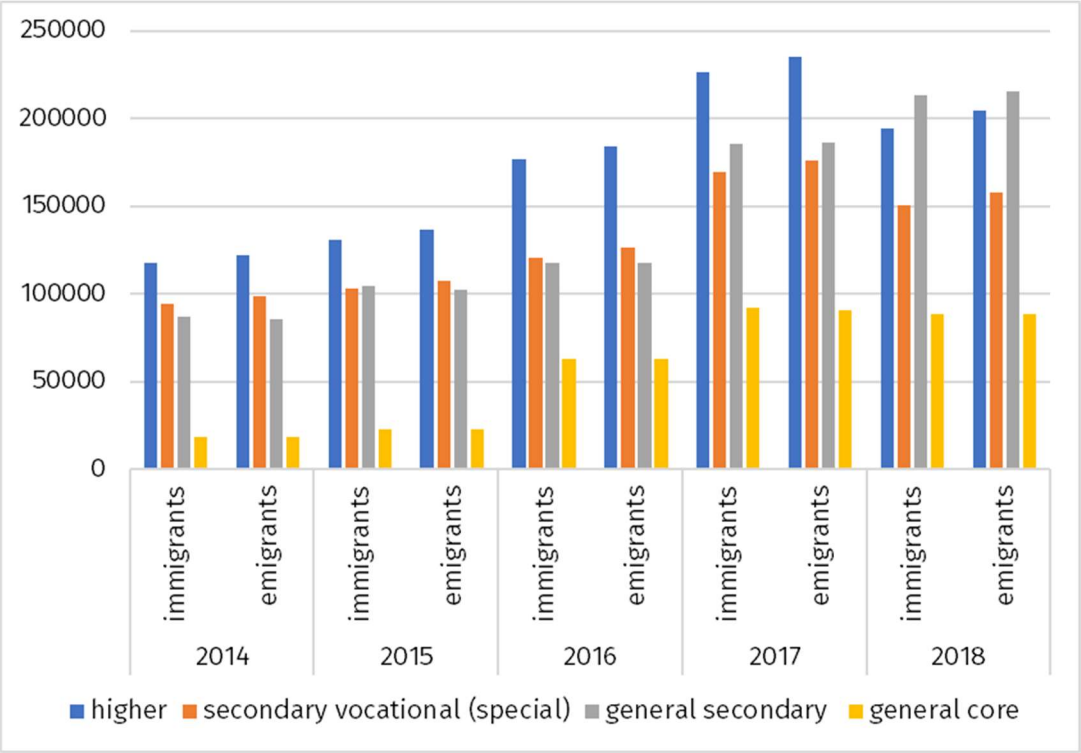

Figure 3 - Migration of population over 15 years of age by education
Source: Compiled by the authors based on the RK Committee on Statistics http://stat.gov.kz

According to the above figure 3, we see that mostly migrate with higher education than others. The main reason of the emigrants is seeking the job with higher salaries in order to increase the income-level as well as having an opportunity to give their children a good education. At the same time, it is clear that emigrate only those who have a good chance to settle in a new place with higher living standards and choose the best option for themselves as it was discussed in newspaper article "Kursiv".

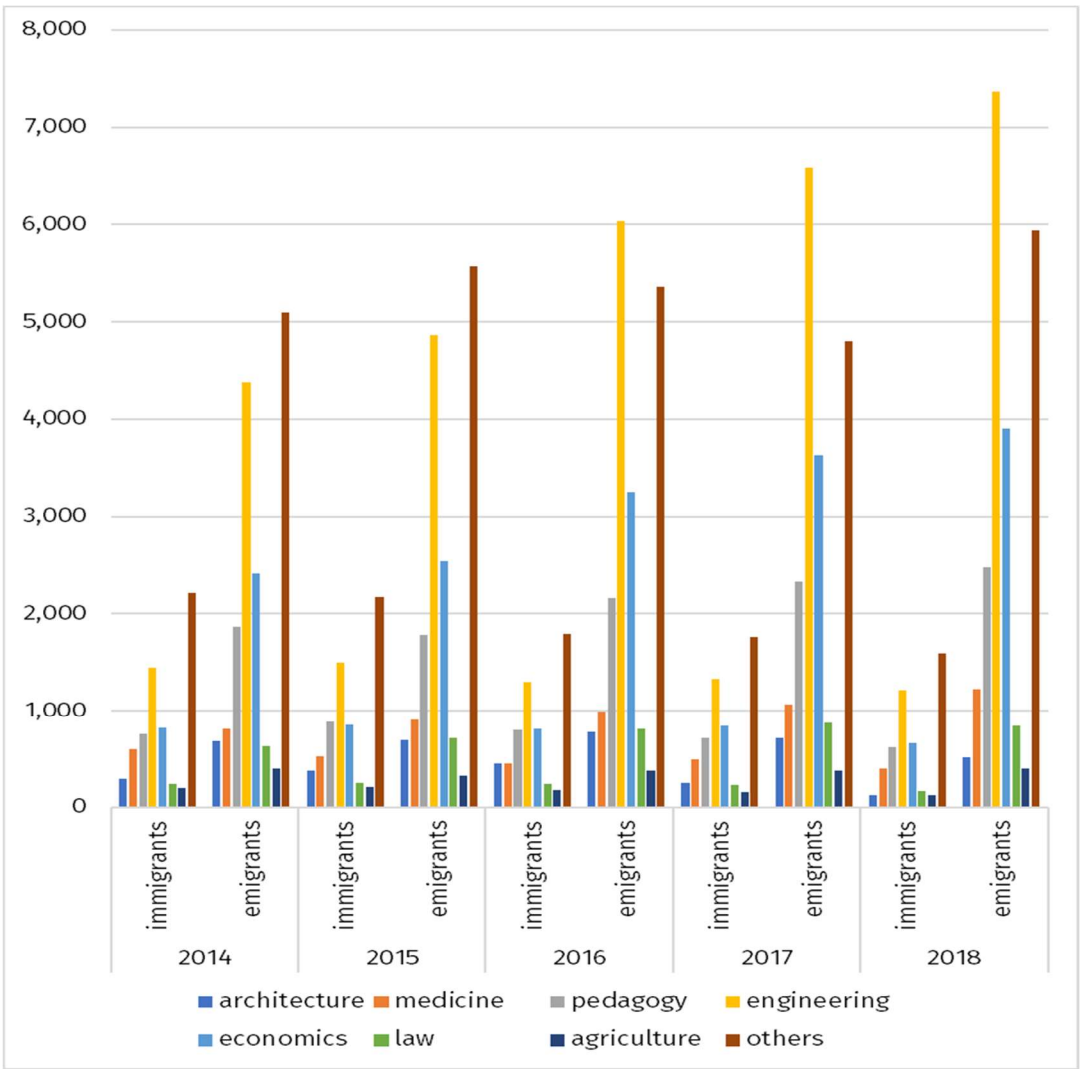

Figure 4 - Migration of the population over 15 years by specialties
Source: Compiled by the authors based on the RK Committee on Statistics http://stat.gov.kz

As you see in the figure 4, above the number of emigrants prevails over arrivals in the entire specified period. Mostly emigrates with engineering (31%) and economic specialties (16%) in compare with other ones. The outflow of "techies" from the country is mostly directed to Russia, because there is a shortage of this specialty. In 2018, those who dropped out in engineering and economic specialties turned out to be 6 times more than those who arrived, while in 2014 this indicator did not exceed 3 times. The sharp increase in 2016 is especially noticeable, which is possibly due to the established agreement on the EAEU.

Three main aspects can represent the Kazakhstani context of migration flows in the EAEU at this stage. The first covers the systematic nature, volume and direction of migration flows in terms of sustainability and manageability. The second aspect includes coordination of departments at various levels to form an effective and flexible labor market, taking into account all realities, problems and prospects. The third aspect, in our opinion, is the development of international migration cooperation of the Union with the active participation of Kazakhstan, taking into account the main national, regional and global trends in the development of the modern system of international relations.

Kazakhstan positions itself as a recipient state both in the Central Asia region and in the post-Soviet space, the country is also taking the second place after Russia within the EAEU and state donor of labor migrants. Kazakhstan accepts labor migrants from Kyrgyzstan, Belarus and Russia (Sadovskaya, 2005a; Sadovskaya, 2005b). Mainly skilled labor migrates from Kazakhstan to Russia (Novikov, 2015).

In general, the involvement of foreign specialists in the Kazakhstani economy remains one of the important issues of government policy in the field of labor migration.

As the diagram (figure 5) shows the large part of immigrants involved in economy of Kazakhstan are from other countries of the world (21 524) than from CIS and EAEU countries (4 661). In addition, according to the analytical report by analyzing the employment spheres of Kazakhstan we may say that the most significant part

of foreign labor involved in construction (44.4%), mining (13.4%) and manufacturing (5.4%).

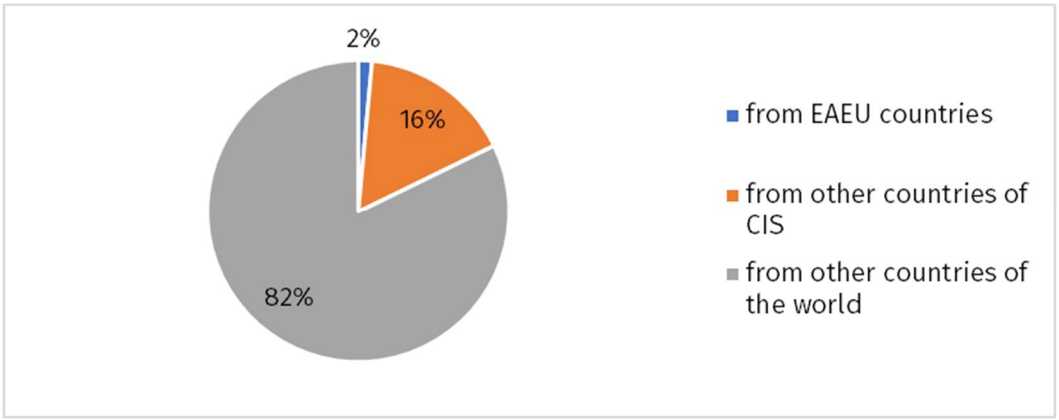

Figure 5. Number of immigrants involved in economy from other countries in 2018
Source: Compiled by the authors based on the RK Committee on Statistics http://stat.gov.kz

According to the monitoring data of huge recruiting companies, most part of migrants wish to work in Kazakhstan. For example, according to one of the largest recruiting agencies, "HeadHunter-Kazakhstan", since the beginning of 2015, more than 9 thousand foreign users have indicated that they are ready to move to Kazakhstan to earn money. Most of the resumes came from Russian citizens - 60.3%, Ukrainians - 22.6%, Belarusians - 4.7% and others. At the same time, the vast majority of them apply for and receive the work of top and middle managers. It is noted that often companies prefer precisely foreigners than domestic ones. Moreover, here we should point about salary level in Kazakhstan that is higher for expatriates in compare with local specialists. Also here should be meant the provision of a full social package to the employee and his family. According to the discussion article in Forbes having such a good packages motivate to migrate not only top managers (project managers, general directors, etc.), but also middle managers (department directors, HR directors), which influence to the competitive environment among domestic employees. At the same time, attracting foreign labor constantly employers create new job places for domestic specialists, also organize professional advanced retraining for local employees.

Conclusions

Summing up all the facts we may say that the average annual growth rate of general migration is accelerated in the specified period. The number of emigrants to EAEU countries has continued to grow over the past five years that is assumed by the conditions of the established agreement on the EAEU. Here should be noticed that mostly migrate with higher education in 'engineering and economics" specialties to settle in a new place with higher living standards and choose the best option for themselves. Consequently, the number of migrants from other countries of the world is greater than from EAEU and as a result, they are more involved in the economy of Kazakhstan. Moreover, mostly work in construction, mining and manufacturing.

Analyzing a number of factors, including the direction of migration flows, volumes, effective coordinated interaction within the organization, as well as the development of international cooperation, determines the Kazakhstani context of migration processes within the EAEU. Creating a common labor market and attracting labor resources within the framework of the EAEU can serve as a powerful incentive for strengthening priority areas of the country's economy and deepening regional integration. It is important to formulate a flexible and balanced migration policy taking into account the specifics of the demographic potential and the development of priority sectors in the economy of Kazakhstan with the involvement of the foreign labor with an emphasis on highly skilled labor, as well as maintaining their own intellectual potential (Topilin, 2018). The stability, security, and manageability of migration flows, based on more integrated cooperation of all member states both within the EAEU and around the entire of its borders, are very important (Ryazantsev, Bogdanov and Dobrokhleb, 2017).

Thus, having migration processes within the framework of the EAEU for Kazakhstan requires a balanced and flexible policy at the national level.

References

1. A stream of managers from Russia and Ukraine poured into Kazakhstan. (2017). Retrieved from http://forbes.kz
2. Analytical report. (2018). *Actual issues of migration policy: assessment of the current state, forecast of the needs of labor migrants taking into account their qualifications. Illegal labor migration. The experience of foreign countries.* Retrieved from http://economy.gov.kz/economyabout/9716/64172/
3. Cherevichko, T.V. (2009). Globalization and modern migration of labor resources. *Bulletin of the Saratov State University.* Series: Economics. Control. Right. - V. 9, 16 - 22.
4. Cherevichko, T.V. (2014) Migratory dynamics of the modern world / migration dynamics of the modern world. *Topical issues of contemporary international relations.*
5. Citizens of the EAEU member countries received equal rights in everything related to working conditions. (2017). Retrieved from https: //www.mzsr. gov.kz
6. Ethnic Return Migration and Public Debate: The Case of Kazakhstan. (2013). IOM UN Migration.
7. Gaeva, A.S. (2018). Migration Processes in the Eurasian Space. *Russia and the Modern World Magazine.*
8. Labor activity and social security for citizens of the Eurasian Economic Union in the Member States. (2015). Appendix. Retrieved from http://www.eurasiancommission.org/ru/act/finpol/
9. Labour migration and social security for workers in the Eurasian Economic Union (2016). Retrieved from http://www.eurasiancommission.org/ru/act/ finpol/migration/tm/Pages/default.aspx
10. Message from the President of the Republic of Kazakhstan - Leader of the Nation N.A. Nazarbayev to the people of Kazakhstan. *Strategy Kazakhstan-2050. The new political course of the held state. (2017).* Retrieved from http://strategy2050.kz
11. Migration as a threat to economic security: why do Kazakhstanis go abroad. (2019) Retrieved from http://www.kursiv.kz
12. Migration within the CIS takes on a peculiar dynamic. (2019). Retrieved from http://www.ritmeurasia.org
13. Novikov, A.V. (2015) Possibilities of the Russian Federation and the EAEU in the regulation of labor migration. *Science Time.* 5 (17), 303-306.

14. Ryazantsev, S., Bogdanov I., Dobrokhleb V. (2017). Migration from Central Asian countries to Russia and Kazakhstan in the context of integration processes in the Eurasian economic union format. *Central Asia & the Caucasus*. 5(21), 39-49.
15. Sadovskaya, E.Y. (2005a). *Labor migration in Kazakhstan in the 2000: The latest trends.* Almaty: Galym.
16. Sadovskaya, E.Y. (2005b). Remittances of labor migrants and their role in migrant households in Central Asian republics. *Central Asia and the Caucasus*. Almaty: MOM.
17. The concept of foreign policy of the Republic of Kazakhstan for 2014-2020 (2014). Approved by Decree of the President of the Republic of Kazakhstan dated January 21, 2014, No. 741.
18. The official website of the Committee on Statistics of the Republic of Kazakhstan (2020). Retrieved from http://stat.gov.kz
19. Topilin, A.V. (2018) *Migration and general labour market of the EAEU: challenges and integration ways.* Retrieved from https://creativeconomy.ru/lib/38076.
20. Treaty on the Eurasian Economic Union. Signed in Astana on 05.2014. Retrieved from http://www.consultant.ru/document/cons_doc_law_163855

IRSTI 44.01.11

Digitalization of the Energy Sector as A Current Trend for Improving the Efficiency of Technological Work in Industries

Bakytnur Uteyev, Saltanat Abishova

University of International Business, Kazakhstan

Abstract

Goals of the research are to present the analysis of the key areas of digital energy and smart electric networks for the current and up to 10 years, a review of modern hardware and software solutions for the implementation of integrated information systems. To process the primary information, general scientific methods including an abstract-logical research method were used. This includes examples of best practices worldwide from analytical reviews and databases.

The digital electric power system forms a single distributed space of information technologies, combining information from primary sensors of energy system objects and its users to common technological, economic, forecasting and behavioral models. Integration of management solutions through digital platforms provides fast, flexible, reliable, safe and cost-effective adaptation of all types of relationships between objects and subjects of the energy system. This optimally satisfies the ever-changing energy needs of resources.

The direction of energy systems in the world contributes to their "digital transition", a fundamental change in the internal institutional architecture and strategic management. In Kazakhstan, the inefficiency of the electric power industry is becoming a limiting factor for the modernization of the economy in the context of globalization. The terms "digital energy" and "digitalization" appeared in the context of the formation of a digital economy. Digital energy is the assembly and development of a combination of industrial and economic relations in the industry

based on digital approaches and tools. From many definitions of the digital economy, it follows that its special subject is economic activity, commercial operations and professional interactions, built on new principles using information and communication technologies.

Keywords: digital transformation, intelligent data processing, digital energy, information and communication technology, energy consumption, renewable energy sources.

Introduction

The concepts of "digital economy", "knowledge economy", "information society" form a new socio-economic system that replaces the industrial paradigm. In the new economic conditions, all economic entities striving for stable functioning are forced to go through the process of digital transformation. It implies not only the installation of modern equipment or software, but also fundamental changes in approaches to management, corporate culture, and external communications. As a result, the productivity of each employee and the level of customer satisfaction increase, and the company gains a reputation as a progressive and modern organization. In practice, this means creating a system of end-to-end business processes, which can be called a digital business ecosystem. Digitalization can unlock these innovative solutions that should not only help transform our energy system, but should also be beneficial to consumers (Dumin, 2017). This will allow for more efficient and effective network management and optimization, leading to increased response demand and the ability to integrate the growing shares of renewable energy sources. Support for research and innovation in society and a private domain, both nationally and in the EU, is the key to digitalizing the market.

Research Methods

In the research process, scientific methods were used. To process the primary information, general scientific methods of analysis and synthesis were used, as well

as an abstract-logical research method. This includes examples of best practices from around the world, which are gathered from analytical reviews and databases.

The projects we financed in the past show what the future might look like and how digitalization can help transform the energy system:

the flexibility of energy consumption is much higher when it is automated: on the island of Bornholm in Denmark it was shown that when half of the consumers in the test were provided with an automatic demand response, and the other half had to personally respond to the price signal, 87% of the total demand response came from automated consumers;

we can better use renewable energy connected to the network using information and communication technology (ICT) and remote control. Using smart inverters next to solar panels on the roofs of consumers in Belgium, the network operator was able to increase the hosting capacity of renewable energy sources by 50%, only 10% of the cost of "traditional" equipment investments.

Results and discussion

Energy consumption accelerated in 2019 (+ 2.3%). This is due to high growth in demand for electricity and gas. In 2019, global energy consumption increased significantly due to sustained economic growth and growing demand in China, which has been the largest energy consumer in the world since 2009.

Kazakhstan accounts for 88.6% of coal, oil - 86%, gas - 32% of the total reserves explored in the region. But even this reserve, if not today, then tomorrow will exhaust itself, therefore we need to use what nature gives us, that is, alternative sources of inexhaustible energy. m. Administrative maps of the Republic of Kazakhstan were compiled with the distribution of long-term wind speed, maps of the energy infrastructure of the Republic of Kazakhstan. The plan for the development of renewable energy sources until 2020 includes the creation of 13 wind power stations and 4 solar power stations.

The share of renewable energy sources (RES, including hydropower) in the global energy balance in 2019 increased by almost 1% (+0.8 pounds) and amounted to almost 26%. The growth is mainly due to the emergence of new wind and solar power plants, facilitated by the ambitious climate policies of the European Union, the United States, China, India, Japan and Australia, as well as the sharp decline in recent years on the development of solar and wind energy, which allows developing countries expand your renewable energy base. Favorable hydraulic conditions have contributed to the growth of renewable energy production in Europe, Brazil, India, Thailand, Australia and New Zealand (Danilov & Saraeva, 2019).

The main condition for accelerating Kazakhstan's economic growth is the implementation of innovative investment projects with high profitability - relatively quick payback, acceptable investment sizes for the development of territorial regions, the study of their potential capabilities in terms of wind strength and solar intensity lighting.

In contrast to the automation of the technological process of distribution and transport of electricity, which in itself is not able to reduce the cost of ownership of company assets, digitalization allows us to achieve this goal by creating and implementing a single trusted digital environment (Bodrunov, 2017). The key problem of automation in the electric grid complex should be considered the difficulty of integrating information systems of different manufacturers and the impossibility of significant changes in the already working automation scheme. The goal of digital transformation in the economy as a whole and in the energy sector is to develop a single information space as an environment and a common interaction language for various platforms and technologies. Such an approach will allow: - to organize the end-to-end transmission of primary digitized technological data in the volumes required for the provision by electric power entities; - reduce administrative obligations of electric power industry entities in assessing readiness for the autumn-winter period; - create a digital information platform as a single trusted environment that will be used in activities by electric power industry entities; - go to the purchase of production assets for the needs of the electric power

industry, based on the cost of the life cycle; - create the possibility of using statistics accumulated on a single industry trusted platform for scientific purposes; - introduce risk-based approaches to the management of energy systems in Russia; - increase the level of reliability with minimal costs for maintenance and repair of network infrastructure by creating a federal center for monitoring reliability; - develop a system of consolidation of industry orders to stimulate the mechanical engineering and microelectronic industry of Kazakhstan.

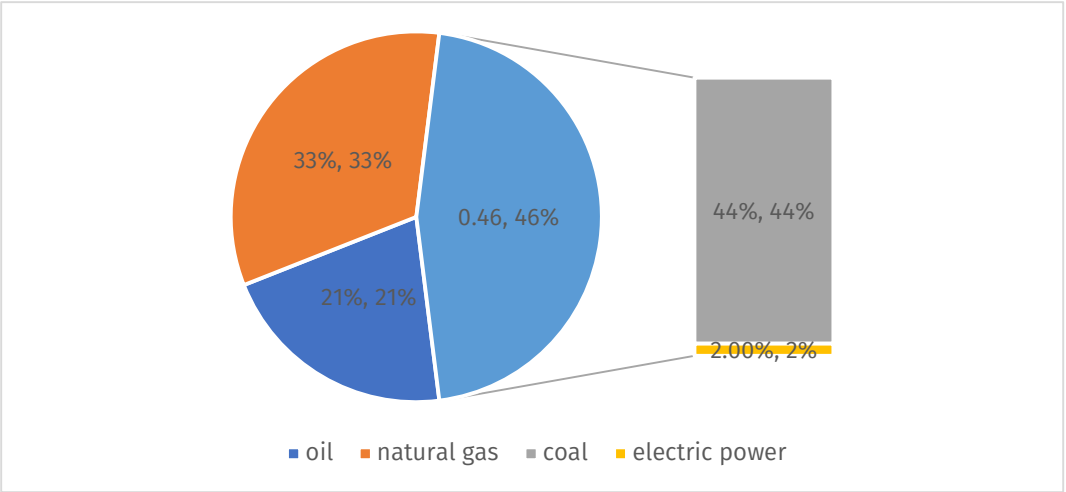

Figure 1. Breakdown by type of energy in Kazakhstan
Source: compiled by the authors based on Statistics World Energy Yearbook 2019, https://yearbook.enerdata.ru

The digitalization of the electric grid complex involves, firstly, an increase in observability, controllability, automation and diagnostics at regional grid facilities (we are talking about digital substations and an active adaptive distribution network). Secondly, the development of information and telecommunications infrastructure for the technological and corporate data transmission network, including cybersecurity issues, the development of integrated information management systems. Thirdly, the digitalization of the company's business processes, the development of innovative and engineering activities. Fourth, the development of human capital, the construction of landfills and network laboratories for the formation of new professional competencies among the company personnel (Istomina, 2018).

The idea of ubiquitous digitalization is to create a new model of the power grid and the energy market of the future that meets promising challenges. In the digital energy ecosystem, energy producers and consumers seamlessly integrate into the common infrastructure, both technical and information, and exchange energy and information. The architecture of digital energy is formed on the following world trends: - the creation of digital information platforms and solutions in the field of energy efficiency to meet the needs of modern and future consumers; - reduction of maintenance and management costs through digital monitoring and predictive analytics; - increasing the efficiency of production, distribution and conservation of energy; - the use of a wide range of external data along with energy consumption data to improve energy efficiency; - system optimization (for example, an increase in the effective capacity of networks due to better control of the power flow).

In the market of energy-efficient solutions for the electricity consumer, home-based energy management systems, smart meters and sensors, and mobile energy services are very popular. The market of intelligent metering devices (smart mereting) is now booming in Russia and Eastern Europe, Central Asia and Latin America1. Today, technologies are widely spread in these countries, giving consumers the opportunity to become active actors in the energy market. Renewable energy sources, microgeneration, energy storage, load control, smart contacts create new opportunities and modern models of consumer behavior. To take advantage of modern technologies, it is necessary to transform the rules and mechanisms of the functioning of energy markets (Baykov, Bezmelnitsyna and Grinkevich, 2007). The introduction of smart grid technology (smart grids) helps to reduce the cost of electricity and the formation of reserve capacity among end users. Improving the technology of smart grids, smart cities and towns is aimed at increasing the reliability and security of power supply, increasing the automation of technological processes in production, introducing digital devices in everyday life, and reducing the cost of repairs and maintenance.

Intelligent energy systems of the future should contribute to the growth of controllability, reliability, and energy efficiency of all known energy systems:

electric, gas, thermal. Energy will allow you to create a fundamentally new architecture of electric networks, based on actively adaptive principles, which will be formed based on consumer requests, and not be imposed by suppliers or authorities. In the next 5–10 years, consumers from both B2B and B2C will shift their focus towards integrated solutions in the field of electric power, distribution, management and monitoring. Flexible multi-functional solutions with program control elements and big data analysis will be in demand.

The terms "digital energy" and "digitalization" appeared in the context of the processes of formation of the digital economy, and it makes sense to consider them only in this connection. From the many definitions of the digital economy, it follows that its special subject is economic activity, commercial transactions and professional interactions built on new principles through the use of information and communication technologies. Therefore, the essence of digital energy is the reassembly and development of the totality of production and economic relations in the industry based on digital approaches and tools (Ang, Xu and Su, 2015). In total, in the phrase "digital economy" (and hence "digital energy"), the defining word is "economy", and the adjective "digital" only indicates the means of achieving the goal. The essence of digital energy is the reassembly and development of a combination of industrial and economic relations in the industry based on digital approaches and tools.

The main objective of digital energy is to eliminate the sharply rising costs of integrating distributed energy and market transactions. The advent of a digital platform in any industry significantly reduces transaction costs. A project in the field of digital energy always involves a new model of interaction between economic entities (Worrell et al., 2007). Many digital business models have been developed: demand aggregators, virtual power plants, virtual distributed energy storage, energy hedging, etc. Digital transformation (digitalization) in the energy sector is primarily the creation of new business models, services and markets, relying on the possibilities of digital economics. A simple example from another industry: the creation of an automated dispatch control

system for a taxi fleet is automation, but Uber, which essentially creates a new business model for the same service, without being a taxi fleet and not owning a single machine, and this makes it cheaper, more convenient and safer is digitalization.

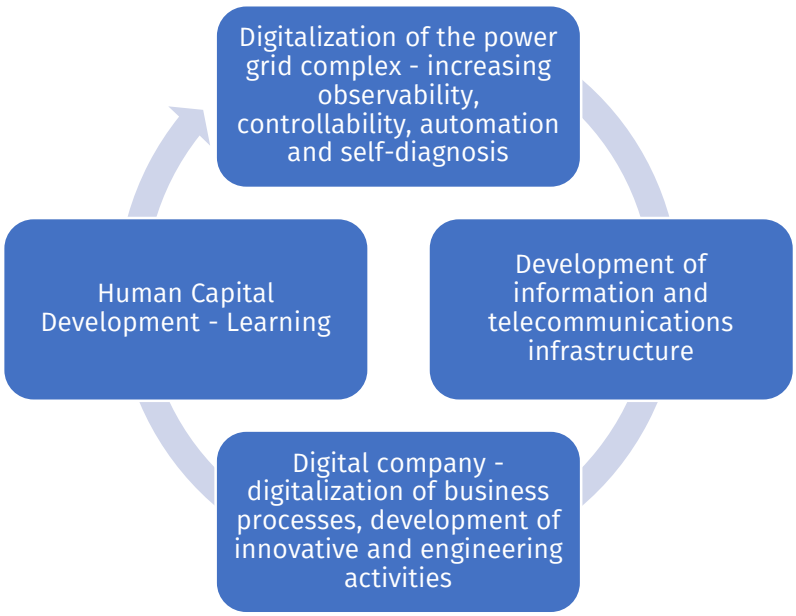

Figure 2. Power grid company digitalization concept
Source: compiled by the authors based on Statistics World Energy Yearbook 2019, https://yearbook.enerdata.ru)

A digital electric power system, the target state of which is using digital technologies that form a single distributed information technology space, combining information from primary sensors of the state of energy system objects and its users, to common technological, economic, forecasting and behavioral models, with the integration of management solutions through digital platforms that provide fast, flexible, reliable, safe and cost-effective adaptation of all types and types of relationships between objects and subjects of the energy system, to optimally meet the ever-changing needs for energy resources and how to use them, in the conditions of constant development of new technologies (Mozokhin, 2018). Digitalization of energy is a fundamental change in the internal architecture and management based on digital technologies. This is a current trend aimed at increasing the efficiency of the energy industry and creating a technological

environment that will qualitatively improve the industry's performance, as well as make significant changes to production ecosystems (Khokhlov et al., 2019). The decisive factor for success in transforming the energy industry is the willingness of organizations and their employees to master digitalization tools and gain digital value - the benefits that new technologies offer. The directions that concern this in the first place: electric power, oil and gas complex, coal industry.

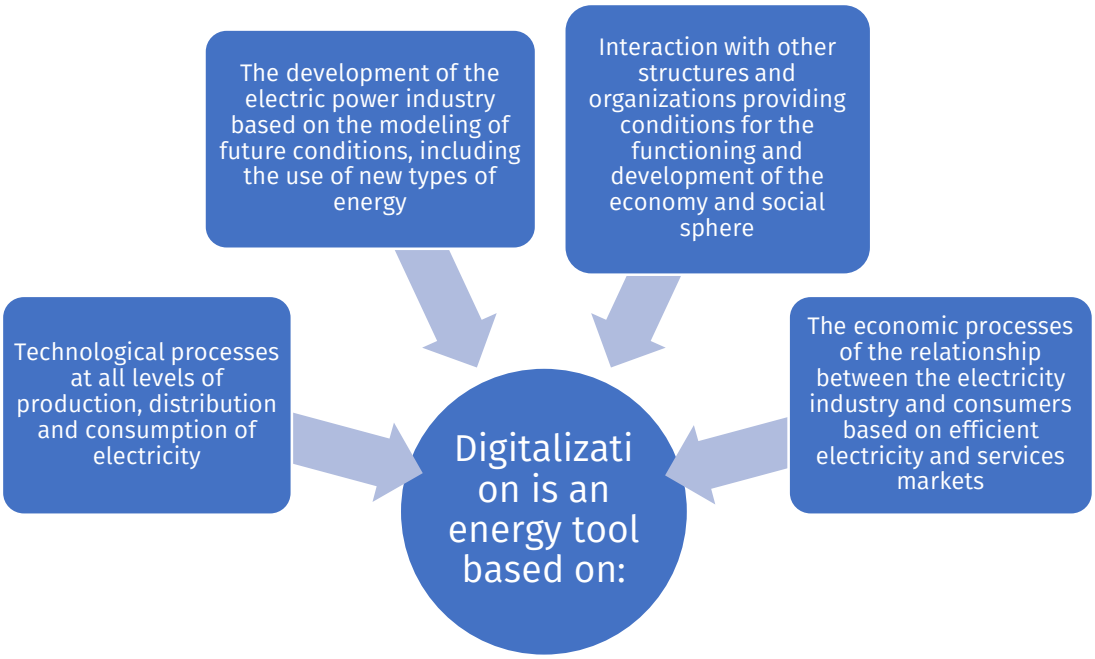

Figure 3. Digitalization - an energy tool.
Source: compiled by the authors based on Statistics World Energy Yearbook 2019, https://yearbook.enerdata.ru)

Conclusions

Since digitalization applies to the entire energy sector, accordingly, it gives new opportunities to all participants in the electrical market: operation, manufacturers, design organizations, the UES system operator, etc. Therefore, I will briefly say about some of the participants. So, for design organizations, digitalization accelerates design processes and reduces the number of errors in projects. For operation, this reduces operating and maintenance costs, transparency of work processes and the choice of more reliable equipment with a lower life cycle cost.

For equipment manufacturers - increasing the serviceability of products, self-diagnosis of products. To achieve a systemic effect from the digitalization of energy, only an administrative instruction is not enough. The transformation of the industry occurs when more efficient use of data leads to an increase in the profits of companies and opens new market opportunities for them. Of course, in some issues, digitalization is more ready in some - less. We propose first to talk about the opportunities that energy has for digital transformation.

References

1. Alahakoon, D., Yu X. (2016). Smart electricity meter data intelligence for future energy systems: a survey. *IEEE Transactions on Industrial Informatics.* 2(1), 425–436. DOI: 10.1109/TII.2015.2414355
2. Ang, B., Xu, X. and Su, B. (2015). Multi-country comparisons of energy performance. The index decomposition analysis approach. *Energy Economics.* 47, 68–76.
3. Baykov, N., Bezmelnitsyna G., Grinkevich R. (2007). Prospects for the development of world energy until 2030. *World economy and international economic relations.* 5, 19-30.
4. Bodrunov, S.D. (2017). Digitalization Capital. *Free Economy*, 3. 24-28.
5. Challenges of the Electric Grid Complex and Ways to Overcome Them (2018). *Strategic session of IDGC of Center, PJSC and IDGC of Center and Volga Region.* 19 p. (in Russian)
6. Danilov, N. F. and Saraeva, I. V. (2019). Global digital space: prospects and threats to the economic development of countries. *News of the Saratov University. Seriya Ekonomika. Upravlenie. Pravo* [Izvestiya of Saratov University. New Series. Series Economics. Management. Law], 1, 65–73. (In Russ.)
7. Digital transformation examples. (2018). [Electronic resource]. Retrieved from https://www.boardofinnovation.com/staff-picks/digital-transformation-xamples/
8. Digitalization in the electric power industry: trends and prospects. (2019). [Electronic resource]. Retrieved from https://marketelectro.ru/content/cifrovizaciya-v-elektroenergetike-tendencii-i-perspektivy-kruglyy-stol
9. Digitalization transformation in the energy sector. *Problems and development prospects*: [Electronic resource]. Retrieved from http://smartenergysummit.ru/novosti /czifrovaya-transformacziya-v-energetike-problemyi-i-perspektivyi-razvitiya

10. Dumin, A.S. (2017). About trends, strategies and the future. *Information Technology Administrator (IT-Manager)*, 8 (162), 10-15.
11. Istomina, E.A. (2018). Evaluation of digitalization trends in industry. *Bulletin of the Chelyabinsk State University. Economic sciences.* 12 (63),108-116.
12. Khokhlov, A., Melnikov, Yu., Veselov, F., Kholkin, D., Datsko, K. (2019). Distributed energy in Russia: development potential [Electronic resource]. Retrieved from https://energy.skolkovo.ru/downloads/documents/SEneC/Research/SKOLKOVO_EneC_DER-3.0_2018.02.01.pdf
13. Mozokhin, A.E. (2018). Technical accounting - expansion of horizons. *Electroenergy. Transmission and distribution*. № 2(9), 9–13.
14. Statistics World Energy Yearbook 2019. [Electronic resource]. Retrieved from https://yearbook.enerdata.ru/renewables/renewable-in-electricity-production-share.html
15. The official statistical information of the MNE of the RK Committee on Statistics. [Electronic resource]. Retrieved from http://stat.gov.kz/faces/wcnav_externalId/publicationsPage?_afrLoop=9597894732358671#%40%3F_afrLoop%3D9597894732358671%26_adf.ctrl-state%3D11mv9n96pr_70
16. There are numbers in networks: what will digitalization give to power engineers? (2019). [Electronic resource]. Retrieved from https://expertnw.com/tekhnologii/v-setyakh-tsifry-chto-dast-energetikam-tsifrovizatsiya/
17. Worrell, E., Price, L., Neelis, M., Galitsky, C. and Zhou, N. (2007). World best practice energy intensity values for selected industrial sectors. - report Lbnl-62806. [Электронный ресурс]. Retrieved from https://eaei.lbl.gov/sites/all/files/industrial_best_practice_en.pd

DOI – 10.47703/ejebs.v2i56.15

IRSTI 71.37.75

Destination Management Approach for Sustainable Tourism Development in Kazakhstan

Klara Mamutova

University of International Business, Kazakhstan

Abstract

The research objectives include a review of international and national organizations in the field of tourism destination management; analyzes of cluster policy and public-private partnerships (PPPs), national tourism agencies and administrations of Kazakhstan; key factors identification of the DMOs effectiveness for the domestic and inbound tourism development in Kazakhstan. The article discusses the industry management system through DMOs, which at various levels play a key role in tourism destinations development. The author considers three levels of DMOs: national, regional and local; their goals, objectives, activities, legal status and budget, possible forms of management, role and authority. Cluster policy and PPPs as a form of management and development of tourism in Kazakhstan are new approaches. The author researched the principles of DMO management in the scientific and business environment. Based on the analysis, the affiliation of Kazakhstani DMOs by the level of destination management were identified, and the relevancy of implementation the DMO management model for sustainable tourism development in Kazakhstan was also justified.

Keywords: tourism destination, destination management organization (DMO), tourism management, public-private partnership.

Introduction

Before we consider the system of tourism destination management, implemented through certain mechanisms and practices for planning, developing and ensuring the competitiveness of tourism destinations (Goncharova, 2010), which are institutionalized in the form of organizations for the management of tourist destinations (Destination Management Organizations), we briefly outline the meaning of tourism destinations.

World Tourism Organization (2019) noted the concept definition "tourism destination" is a "physical space with or without administrative and/or analytical boundaries in which a visitor can spend an overnight. It is the cluster (co-location) of products and services, and of activities and experiences along the tourism value chain and a basic unit of analysis of tourism. A destination incorporates various stakeholders and can network to form larger destinations. It is also intangible with its image and identity which may influence its market competitiveness" (p.14).

Another dominant modern approach to the destination is that places get meaning through the processes of production and consumption, which bring together people from all over the world, contextualizing their experience. Concerning the tourism destination and its development, this thesis means a unified planning approach, involving various stakeholders (tourists, representatives of the tourism industry, residents, authorities, science and education institutions) in this process. Buhalis (2000) considered the tourism destination as a system primary role assigned to the tourism market stakeholders, their business activity and interaction among themselves (p. 99). Saraniemi and Kylanen (2011, p. 135) define tourism destination as "a set of institutions and actors located in space physically or virtually, and the changing products of social, political and economic practices".

According to the World Tourism Organization (2007) destination management is "the coordinated management of all the elements that make up a tourism destination (attractions, amenities, access, marketing and pricing)".

Responsible and sustainable destination management should entail a process that effectively and harmoniously addresses the interactions between the visitors, the industry that serves them, the community that hosts them and the environment in a broad sense (natural and cultural resources).

In the *Encyclopedia of Tourism*, Anderson (2000) considers that the term *destination management organization* (DMO) refers "to either a convention and visitor bureau, a state/provincial/regional tourism office or a national tourist organization/ administration. These organizations are the entities mandated to undertake the process of tourism destination management. DMOs have become the principal organizations responsible for leading, coordinating, stimulating and monitoring tourism development and marketing for a destination area."

UNWTO (2019) describes the definition "destination management organization" (DMO) as "the leading organizational entity which may encompass the various authorities, stakeholders and professionals and facilitates partnerships towards a collective destination vision" (p.16).

The abbreviation DMO, in foreign literature has two options:
1) Destination Marketing Organization (DMO), citing Pike (2004) is "an organization of all levels (national, regional, local), responsible for marketing the destination, except for government departments responsible for tourism policy and planning".
2) Destination Management Organization.

As the role, expansion of powers and functions of these tourism organizations increased, the last option began to be used, which reflects the current understanding of DMO as the organization responsible for the management and/or marketing of tourism destinations. DMO is an organization that is a strategic leader and coordinator of the destinations development by strengthening partnerships and cooperation of all stakeholders (tourism industry, universities,

authorities and the local community), and is a platform for e-business travel destinations. The main goal of DMO is life cycle management and ensuring the long-term competitiveness of tourism destinations (Goncharova & Kiryanova, 2011).

Previous studies provide only general characteristics of destination management organizations. The implementation of destination management tools, including national characteristics of mentality, public policy and the business climate within the country have not been researched. And also the mechanisms of interaction between organizations for DMO at various levels have not been studied. These objects are very important for the tourism development in Kazakhstan.

Literature review

Cooper and Hall (2008) bring up the impossibility of governments to continue to coordinate and control all activities, including those related to hospitality and tourism, and the substantial shift from government to governance. This transformation has at its core the change of the relative role of governmental and public institutions related to: governmental agencies, welfare and public economic support systems, including sponsoring and subsidies, environmental, social and cultural projects, etc. Today, states tend to pull back and direct interventions tend to be replaced in this respect by the cooperation with the private sector enterprises and/or non-governmental organizations (NGOs). Such cooperation can imply the government or its departments and offices, state/public agencies and institutions, entirely/partially state-owned enterprises, the private sector, and NGOs. The assessment of the destination management system effectiveness achievement and acting model for incoming and domestic tourism development is still not enough studied.

The role of the state is that of encouraging the development of networks and partnerships and of steering them in the desired direction. Rhodes (1996, 1997) as quoted by Cooper and Hall (2008), presents the characteristics of governance:

organizations are interdependent; governance, as a concept, is wider than government, implying roles for non-state actors (such as: the private sector, NGOs, and stakeholders); consequently, the delimiting between the public sectors and all the other ones is rather unclear; network members interact continuously, needing to exchange resources and to negotiate shared purposes; network relations are based on mutual trust and preserved by the established interaction rules; many networks are self-organised and are significantly autonomous in relation with the government; governments can steer networks imperfectly and indirectly, although they do not occupy privileged positions within them. There is no mention of the differences in interaction between DMOs of all levels in different countries, taking into account their national and mental features.

Given the complexity of the networks and their heterogeneous structures, Jessop (1997), as citied by Cooper and Hall (2008), refers to *meta-governance*; this implies "the steering of multiple agencies and organizations, which although operating autonomously of one another, remain linked together through their involvement in common policy issues and associated funding and benefits". Obviously, DMOs fit perfectly in such a context, as:

- DMOs are very often partially or fully funded by the states;
- DMOs can even belong to the formal governmental structure (as state agencies);
- DMOs play a key role in bringing together other public agencies, tourism producers and even destination communities for purposes closely related to tourist destination development and/or marketing;
- DMOs do not own the tourist products they develop, promote and sell (Cooper & Hall, 2008).

But there is no recommended PPPs model in which it will be possible to effectively involve all stakeholders. The benefits for entrepreneurs and local communities in implementing PPPs are not clearly described.

Shkira and Qirici (2013) point out at destination/local level "tourism stakeholders have gradually shifted focus from the traditional marketing and promotional functions to the more coordinated strategic approach of destination management."

Citing Goeldner and Ritchie (2003), Minguzzi (2006) explains that "destination management consists of the integrated management of those processes necessary in establishing an exchange between a destination and its visiting tourists. Therefore, on one hand, it involves the management of services offered and tourist attraction factors, while, on the other hand, managing demand, dependent on tourist flow and customer satisfaction". Further, given that more and more researchers argue the importance of the relationships between the different actors of the tourism destination, quoting Gunn (1994), Minguzzi (2006) shows that "the implementation and success of a tourism development plan is often based on the support of the stakeholders in the community, which include the citizens, entrepreneurs and community, leaders, guests". How to evaluate the effectiveness and contribution of stakeholders to the destination management and how to attract the business community to more active participation, these questions are still open and not researched yet.

Methodology

The author analyzed secondary sources, such as reports on destination management of the World Tourism Organization, as well as statistics, national reports and state programs of tourism development in Kazakhstan.

Over the past 10 years, the author has been monitoring the tourism development in Kazakhstan, according to the research there has been a dynamic growth in the international tourism development. This is due to the needs of tourists in leisure and recreation. One of the popular types of tourism for citizens of Kazakhstan is a beach tourism. The lack of seaside resorts, undeveloped infrastructure, transport inaccessibility and the huge distances between tourism destinations and cities, as well as the insufficient marketing promotion of Kazakhstan as a tourism destination and the absence of an authentic tourism product determine the prevalence of outbound tourism over domestic and incoming tourism. But over the past 3-4 years, the tendency has been changed, and incoming and domestic tourism has

begun to gain momentum. We believe this happened not only due to major MICE events in Kazakhstan, primarily due to state support for tourism development, simplification of administrative barriers to doing business, simplification of visa procedures for entry of foreign citizens, as well as a marketing policy to promote Kazakhstan on the international market and within country. In 2019 after devaluation in Kazakhstan, the national currency depreciated almost twice. The consequences of the influence of Covid-19 on the economy of Kazakhstan and tourism enterprises caused the citizens priorities displacement towards safety and health. Author is mentioning those reasons for the change in tourism trends development, and increasing the interest of the Kazakhstan citizens in the rest inside of the country.

Findings and Discussion

As, the state program "Development of incoming and domestic tourism in Kazakhstan for 2019-2025" was adopted, a structure for promoting tourism in Kazakhstan was created, and visit centers in some regions of the country began to be created. Tourism development in Kazakhstan is still in developing process, therefore, government pay attention to studying successful international experience in the tourism development and promotion at different levels.

UNWTO (2007) highlighted three levels of Destination Management Organizations (DMOs):

1. *National Tourism Office or National Tourism Organization (NTO).*

In 1979, the World Tourism Organization (2007) introduced the term "national tourism administration" (NTA): a government, government agency or official organization responsible for tourism development at the national level. This term was used to distinguish between NTA and NTO: to reflect the new concept of tourism management at the national level and to emphasize the departure of most countries from the traditional system, where NTO is the natural and main body for promoting the destination, towards the new concept of NTA that marketing sees and promotion as one of many of its functions.

The NTO has two marketing tasks: to develop and form a tourist product or products of this destination and promote them in target markets. The approach to the development and promotion of a tourism destination should be based on marketing research, so a market-product pair is formed. Carrying out such work, the NTO acts on behalf of the entire destination and complements the development and efforts to promote tourist products of private tourism companies. In Kazakhstan the DMO at national level is National company Kazakh Tourism, a general coordinator and brand manager, responsible for promotion and institutional development of the tourism industry in Kazakhstan. Activities of Kazakh Tourism are funded by the government.

2. *Regional tourism organization (RTO).*
An organization whose responsibilities include the management and / or marketing of a region as a destination. The term "region" is used to mean a concentrated tourist space, such as a district, state, province, region, territory.

At the regional level, DMO should actively involve various stakeholders in solving the problems of the destination. The private sector is attracted by the opportunity to promote its product through DMO. In fulfilling its marketing role, DMO has its budget and is also a "bridge" between national organizations and the tourism industry. This is an important role since as long as the national tourism authorities are the single most visible player (subject) of the tourism market, the collective spending of the industry will be much larger. If the regional DMO can combine the resources of the private and public sectors, then they will mutually strengthen the strategic approach and can achieve great results with the same funding. When a regional DMO fully involves business in its programs, it plays the coordinating role of tourism activities at the state, oblast, and region levels. To do this, develop the mechanism of local tourist executive groups. Such groups should bring together a wide range of organizations (hotels, tour operators and travel agents, transport companies, restaurants and cafes, museums, professional associations, unions, clubs, etc.) to fulfill the role of DMO in managing and ensuring a high perceived

quality of the destination. The regional DMO should coordinate and stimulate the work of partners through the development of a joint Destination Management Plan and monitor the implementation of the tourism action plan at the regional level. In realizing this, DMO should listen to the opinion of local businesses and involve them in the process of planning and accomplishing tasks (World Tourism Organization, 2007).

In Kazakhstan, this function is performed by the Kazakhstan Tourism Association (KTA). KTA was created in 1999 in order to coordinate entrepreneur activity of commercial organizations, presentation and protection of mutual proprietary and other interests. The Association organizes protection of interests of its members under the state authorities, promotes the interests of its members and gives opportunity to participate in changes and supplementing the sectoral legal framework. The Association is accredited by the NCE RK Union «Atameken», also association presents sectoral project appraisal of normative legal acts, involving the interests of sectoral private entrepreneurship. KTA is nongovernment organization, funded by membership fees from local tour operators and travel agents (Kazakhstan Tourism Association, 2016).

3. *Local Tourism Administration and Local Tourism Association.*

An organization providing management and / or marketing of a city or tourist center. There are several organizations in Kazakhstan, such as Turkestan Tourism Center, Visit Aqmola, Visit Almaty, etc.

Municipal state institutions include the Tourist Information Center, Turkestan Tourism Center (2020) for Management of Entrepreneurship, and Industrial and Innovative Development and Tourism of the South Kazakhstan Region. The main goals of the Tourist Information Center are general tourism of the region, comprehensive support of tourists, development of tourism entrepreneurship, creation of conditions for the regional tourism development, increasing the attractiveness of the region as a popular tourism destination in Kazakhstan and abroad, promoting the progress of the tourism industry and monitoring industry growth, search for new forms of tourism cooperation in the Kazakhstan and

international context, identifying the main players interested in the development of this industry, developing joint the action aimed at creating a modern and competitive tourism industry in Turkestan region, enhancing the tourist image of the region of its territory, as a significant factor contributing to the stability and socio-economic development of the region.

To achieve the above goals, the center performs the following tasks. Such as providing accessible and reliable information and marketing to improve regional tourism. Analysis of regional services, including those integrated with international experience.

Support for tourists through the Call-center makes it possible to uninterruptedly provide information at any time. This tool has advantages, as it allows tourists to receive information, as well as with the support of visa processing. It assists in obtaining legal and other types of assistance to foreign tourists. It also provides information on the selection of tourist routes and locations.

The tourist center “Visit Aqmola” is engaged in the formation and dissemination of information about the unique tourism potential; promotion, support of new business entities and their further information support of tourism activities in Akmola region and beyond.

Tourist hub “Visit Almaty” created for development of a comfortable information environment for tourists and guests of the city of Almaty and implementation of projects to promote the tourist potential of the city in the international and domestic markets. The functional features of tourism destination management in Kazakhstan are illustrated in table 1.

Table 1. Destination Management Organizations in Kazakhstan

Kazakh Tourism	Kazakhstan tourism association	Tourist information centers Visit Almaty, Visit Aqmola

1) tourism brand management of Kazakhstan. 2) promotion of Kazakhstan as an international tourism destination. 3) development and implementation of marketing strategies. 4) the organization of anchor events that attract tourists. 5) creating tourism portal of Kazakhstan. 6) monitoring the quality of the travel services provided and preparing proposals for their improvement. 7) data analytics to achieve compliance with the tourist experience obtained by the destination visitors. 8) analysis of the entire spectrum of tourism activities. 9) monitoring the existing structure and the number	1) promotion of Kazakhstan 2) legislative framework formation 3) legislative projects expert assessment 4) support for small and medium-sized businesses development 5) formation of the concept of Kazakhstan as a tourism destination 6) promoting tourism security 7) facilitating tourism formalities 8) marketing research 9) bridge between government and entrepreneurs 10) quality standards development 11) training, advanced training, certification of travel services 12) event organization	1) Innovative management of the growth and development of the tourism industry. Definition and development of a tourism industry development strategy for the region. 2) Ensuring a high-quality profile and highly effective online presence (capable of inducing a visitor to purchase services at the planning stage of a trip and during a stay) of tourism destinations on the Internet, designed for both local and foreign tourists. 3) Maintenance work visit center. 4) Coordination of international marketing: • Attraction support • Promotion of the region/city as an exciting tourist destination for the long-distance flight destination market, together with the International Airport. 5) Promotion of a region/city as a leading MICE destination in target markets. 6) Promotion of a region/city in the B2B and B2C sectors. 7) Internal marketing. Development of marketing programs and conducting marketing campaigns in the target market.

of offers of tourism products. 10) trends monitoring in tourism, timely reaction to changes. 11) attracting investors for the implementation of tourism projects. 12) ensuring the quality improvement of the tourism services. 13) analysis of proposals for the development of quality standards for tourism products. 14) the international organization of tourism and support.		8) Conducting campaigns aimed at maintaining the image of the center as a "lively, energetic" place attractive for visiting by residents and visitors. Informing the audience about the news and interesting events of the center. 9) Implementation of event management. 10) Development of a communication strategy for the destination. 11) Providing a system of marketing information. Conducting market research and creating a database. 12) Tourism product development. The development of tourist attractions. 13) Ensuring and supporting public-private partnerships. Representation of the interests of partners in the public and commercial sectors through the implementation of most activities in collaboration with strategic partners: NTO, International Airport, airlines and local business.

Source: Designed by author

World Tourism Organization (2019) mentioned that many factors account for the increased focus on effective destination management, all of them urging destination management organizations (DMOs) to face and adapt to new challenges. From traditional marketing and promotion boards the trend is for these

entities to increasingly enlarge their scope to become all embracing DMOs, aiming to enhance the competitiveness and sustainability of destinations within a harmonious relationship between the residents and visitors (p.32).

UNWTO (2019) has identified three areas of key performance in destination management at DMO level: Strategic Leadership, Effective Execution and Efficient Governance. To assess each of these three key performance areas UNWTO through has developed a set of criteria and indicators. The criteria summarized in the table 2 are the basis of the detailed set of 23 criteria that form the UNWTO.QUEST destination management organization Certification process (p.21).

Table 2. Criteria for effective destination management organizations according to UNWTO (2019, p.22-24).

Key performance areas of DMOs	Success criteria
1. Strategic leadership	7 Success criteria: - tourism policy and/or strategic development plan - strategic vision - tourism knowledge and information - coordination during crisis - sustainable management programme - stakeholder partnerships - tourism culture promotion
2. Effective Execution	11 Success criteria: - regulation - destination leisure tourism

	- business tourism - information and communications technologies (ICTs) - tourism investment - competitiveness - entrepreneurship and innovation - promotional material - information services - human resources development - tourism quality
3. Efficient Governance	5 Success criteria: - Strategic Plan - governance principles - finances - human resources management - using technology effectively

Legal Status, Financing, and Structure of DMOs

There are a lot of DMOs and there is no universally recognized model. Historically, DMOs have emerged either as a state department or as an association of industry representatives. Recently, there has been a shift towards combining the efforts of the public and private sectors and creating partnerships to ensure the implementation of marketing programs and the development of the tourism industry. Public-private partnerships (PPPs) of any level (from national to local) are usually governed by a council of business representatives approved and accountable

to the authorities. As for the legal form of DMO, it can be different, the most common is a non-profit organization. Various options for private sector participation in the management and marketing of tourism destinations are presented in table 3.

Most DMOs, especially NTOs, rely heavily on government support and funding. Government funding is usually expressed in the form of grants. In addition to state allocations, the DMO budget can be replenished by contributions of members/partners to conduct marketing campaigns; cooperation with tourism industry enterprises in the field of research; membership fees of industry representatives; percent of tourist services; taxes paid by hotel guests and etc.

Table 3. Public-private relations in the form of managing tourism destinations defined by World Tourism Organization (2007, p.137)

Tourism Destination Management	Private sector involvement in DMO activities							
	Expert council	Management Board	Industry link groups	Joint activities with private professional associations	Membership	Registering	Outsourcing	Customers
Separate department of authority	+		+	+		+		+
Partner Governance Partnership	+		+	+		+		+
Collaborative Governance Partnership	+	+	+	+		+		+
Authority outsourcing work					+		+	+
PPPs with specific functions (nonprofit organizations)		+	+	+	+			+
An association or private business fully funded by the private sector		+		+				+

Role and Responsibilities of DMOs

All three categories of DMOs have similar roles and responsibilities. In some cases, local or regional DMOs coordinate their activities and obey the decisions of regional or national DMOs, respectively. As presented in Table 4, national-level DMOs are more responsible for a general strategy for the tourism development in the country, while local DMOs are mainly responsible for the functioning of the industry and the implementation of decisions.

Table 4. Roles and responsibilities of DMOs - national, regional, local levels according to World Tourism Organization (2007, p.147).

Activities	National level	Regional level	Local level
Destination promotion, including branding and image	+	+	
Campaigns to drive business, particularly (SMMEs)	+	+	+
Providing objective and reliable information	+	+	+
Service reservation management			+
Destination coordination and management			+
Visitor information and reservations			+
Education and training		+	+
Business consulting		+	+
Product launching		+	+

Event development and management			+
Attractions development and management			+
Strategy, research and development	+	+	+

DMOs are government agencies, regional or city travel agencies, non-profit organizations and private companies that are involved in the management and/or marketing of appropriate travel destinations (manage the creation of a competitive travel destination product, check its quality, find markets and promote it, monitor implementation, etc.) and are a catalyst and facilitator of their development (Goncharova, 2011). Destination management organizations play a key role in representing the often disparate, sometimes conflicting interests of tourism market stakeholders.

Successful destinations result from successful and sustainable destination management, and, obviously, depend on the success of DMOs. Wray et al. (2010) quoted by Klimek (2013) characterize effective DMOs; these should have: a long-term vision of destination development; the capacity to clearly designate responsibilities to stakeholders and to develop appropriate operational structures; and a transparent and responsible decision-making process, which involves all stakeholders.

Public policies are instruments of governance and as such the importance of tourism policy relies on the fact that they provide the framework conditions for the tourism sector to thrive within a certain governance context. All public and private sector stakeholders (tourism industries and suppliers in the tourism value chain, DMOs, etc.) operate within a given regulatory framework and a business environment which are valid not only for tourism stakeholders but common to all other actors in the economy. The tourism policy thus needs to be fully integrated

within the existing regulatory framework in the country and be comprehensive of all the elements that build up a planned tourism vision to ensure a sustainable and competitive sector in the short, medium and long run.

Conclusions

UNWTO defines competitiveness of a tourism destination as "the ability of the destination to use its natural, cultural, human, man-made and capital resources efficiently to develop and deliver quality, innovative, ethical and attractive tourism products and services in order to achieve a sustainable growth within its overall vision and strategic goals, increase the added value of the tourism sector, improve and diversify its market components and optimize its attractiveness and benefits both for visitors and the local community in a sustainable perspective" (Buhalis, 2000). When considering the key factors of tourism competitiveness, unarguably appropriate tourism policies and strategic planning are top of mind.

The development and further formation of the tourism management system with the outcomes of destination management organizations has led to the conclusion that a complex of such as DMO and others provide versatile functions aimed at achieving such a common goal for the systematic and sustainable tourism development. The proposed structuring of tourism destination management organizations will make it possible to correctly determine the strategic priorities for tourism development and to understand the organization's responsibility in the framework of its activities.

Each organization, performing certain functions, allows to create a systematic approach to launch a tourism development strategy in Kazakhstan and increase the value of managerial decisions. So, the Tourist information centers provide information to support tourists, create a comfortable information environment and promote tourist products of Kazakhstan, the created PPP organizations ensure the full development of tourism and the implementation of marketing programs, contribute to strengthening partnerships.

According to the analysis, we can conclude the strategy formation for the tourism destinations development is necessary to distribute roles between stakeholders for managing tourism destinations, according to their capabilities and goals. This integrated approach will allow us to implement all the variety of questions raised in the development and formation of a tourism development strategy in Kazakhstan.

References

1. Buhalis, D. (2000). Marketing the Competitive Destination of the Future, *Tourism Management*, *21(1)*, 97–116.
2. Cooper, C., Hall, C. M. (2008). *Contemporary Tourism: An International Approach*, Butterworth-Heinemann Elsevier.
3. Goelder, C.R. and Ritchie, J.R.B. (2003). *Tourism: Principles, Practices, Philosophies*. New York: Wiley.
4. Goncharova, N.A. (2010). *Tourism destination development.* Department of history, international and social studies, Aalborg University, 128.
5. Goncharova, N.A. (2011). Internet promotion of tourism destination: tourism web portal of DMO. *Actual issues of Humanities: collection of papers of X International scientific and practical conference of students, postgraduates and young scientists*, p.56.
6. Goncharova, N.A., Kiryanova, L.G. (2011). Destination life cycle management. *Bulletin of the Tomsk Polytechnic University, 318(6),* 52–56.
7. Gunn, C.A., (1994). *Tourism Planning.* (3rd edition). New York: Taylor and Francis.
8. Jafari, J. (ch.ed.) (2000). *Encyclopedia of Tourism*. Routledge.
9. Jessop, B. (1997). Capitalism and Its Future: Remarks on Regulations, Government and Governance. *Review of International Political Economy*, 4(3), 561-581.
10. Kazakhstan Tourism Association (2016). Retrieved from http://www.kaztour-association.com/kta2-1.htm
11. Klimek, K. (2013). Destination Management Organizations and their Shift to Sustainable Tourism Development. *European Journal of Tourism, Hospitality and Recreation*, 4(2), 27-47.
12. Minguzzi, A. (2006). Destination Competitiveness and the Role of Destination Management Organization (DMO): An Italian Experience, Tourism Local Systems and Networking. *Elsevier – Advances in Tourism Research*, pp. 197-208.
13. Pike, S. (2004). *Destination Marketing Organizations.* Elsevier Science.

14. Rhodes, R. (1996). The New Governance: Governing without Government, *Political Studies*, 44, 652-667.
15. Rhodes, R. (1997). *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability*, Buckingham: Open University Press.
16. Saraniemi, S., Kylanen, M. (2011). Problematizing the Concept of Tourism Destination: An Analysis of Different Theoretical Approaches. *Journal of Travel Research, 50(2),* 133–143.
17. Shkira, E., Qirici, E. (2013). Role of Destination Management Organization in Developing Sustainable Tourism in Korça Region. *Economic Science and Practice*, *2nd International Scientific Conference* (pp. 93-96). Chita: Young Scientist Publisher.
18. Turkistan Tourism Center (2020). Retrieved from the official tourist information portal of the Turkistan region http://turkistantravel.com/en/about-us/turkistan-tourism-center
19. World Tourism Organization. (2007). *A Practical Guide to Tourism Destination Management, UNWTO*. Madrid. DOI: https://doi.org/10.18111/9789284412433.
20. World Tourism Organization. (2019). *UNWTO Guidelines for Institutional Strengthening of Destination Management Organizations (DMOs) – Preparing DMOs for new challenges, UNWTO*. Madrid. DOI: https://doi.org/10.18111/9789284420841.
21. World Tourism Organization. (2019). *UNWTO Tourism Definitions, UNWTO*. Madrid. DOI: https://doi.org/10.18111/9789284420858.
22. Wray, M., Dredge, D., Cox, C., Buultjens, J., Hollick, M., Lee, D., Pearlman, M. and Lacroix, C. (2010). *Sustainable Regional Tourism Destinations. Best Practice for Management, Development and Marketing*. Queensland, CRS for Sustainable Tourism.

DOI – 10.47703/ejebs.v2i56.16

IRSTI 14.07.07

Introduction to Human Capital Investigation in Kazakhstan. Designing Courses to Teach School Children to the Self-Learning Skill

Leila Mardenova

University of International of Business, Kazakhstan

Abstract

Goals and objectives of the research: To raise awareness about maintaining self-learning skill for the students of schools and their parents in order to investigate into human capital. The objective is to identify the advantages, disadvantages of blended learning in Math classes at schools with Kazakh linguistic groups and find out the proper implementations considering culture and perception of Kazakhstani families of the middle class.

Mixed methods such as surveys and experimental classes were used.

Results/Findings: The self-learning skill is not developed in a majority of the students, however, there are bunch of problems related to this obstacle. Starting from the technological limits and internet access, ending with the not sufficient developments of the content for Kazakhstan's students online.

Novelty/Originality/Value: The work with the students is performed in a relatively short period of time (3 months) by conducting classes. This is the first research done in ordinary comprehensive school and in Kazakh linguistic group on the usage of digital resource in English within the class of Kazakh linguistic Math class.

Theoretical or Practical Implications: The results of the experiment can be related to the primary data. The implication of the research can be used in conducting experiments in other schools to identify the tendencies of students in raising self-

learning skill to invest into the human capital and its perspectives in economic sphere which includes education.

Keywords: education, economic growth, human capital, teaching methods, adaptation of methods to teach and learn.

Introduction

In the XXI century the world is changing into more informational environment where the capital of the country can be distinguished by intellectual features of human. The situation with lockdowns that had a place from 2020 in most of the countries is showing the importance of changing an approach to teach and study. The century of globalization is making big changes in the economics of countries; thus, it affects policies governments are making.

This article's topic is dedicated to the blended learning method used abroad to teach and learn Mathematics. According to UNCIEF (2020) due to COVID-19 lockdown, about 190 countries decided to close schools for quarantine which affected 1.5 billion children and young people, so in Kazakhstan the schools and the staff with students shifted offline classes to online classes too. Mostly there were 10-minute videos by channels on television and radio on each topic every day from company Bilimland (www.bilimland.kz). However, the teachers were sending the assignments and receiving the answers, and the main duty of them were giving feedback and assessing the works of students. This is not the main and important function of the teachers as we stated in chapter one, because teachers first of all need to up bring the students to motivate them learn deeper, to learn how to research and ask questions.

The research question of this research is about why effective digital resources in the face of Khan Academy (in English) not implemented into Mathematics classes in Kazakh common schools. The experimental observation in the school of Almaty (common comprehensive school) was conducted from January 27 and till Apri l

18. In the process of observation, it was found that limited access to the technologies, internet connection and pedagogy approach on teaching Mathematics in English were the main challenges in this experimental class. However, in the lockdown situation, the government solved the issues with the technology and access to the internet connection. And even when there was a problem of internet in different points of the country, it was solved by translating study videos on main channels of television. So, children were able to watch the tutorials and explanations through the TV channels. Digitalization of the Mathematical course came spontaneously with the help of government and paid websites like "Bilimland" and new "DarynOnline" with Kazakh content on several subjects with interactive videos. We can assume, when there is a strong need in using digital resources to teach and learn, all the resources can be found if there is a great force from the Ministry of Education and Science. However, the problem of attitude towards the internet learning of Mathematics by students, parents and teachers is still the issue to work on due to novelty in the traditional classrooms.

Before conducting the research, we analysed and compared the researches done in Chile by Light and Pierson (2014), because of the similarities in the schooling system. In that research we have identified other challenges to prepare for and could identify the possible solutions for our experiment at school. Additionally, we outlined the advantages of using Khan Academy in Math classes. In the second part of the second chapter we described the experiment and surveys conducted during the practice work of the master student.

By the end of the research we have defined that it is very hard to use online learning of Mathematics with CLIL method in English in Kazakhstan's common schools, especially in Kazakh forms effectively, but still it is possible. However, during the experiment we were taking notes for solving occurring problems related to the studies and the feedbacks from the students itself. Those notes can be used as guidance for making new experiment for Mathematics groups. Also, we took notes on the improvement of students who voluntarily took the part in this experiment

to improve the results on Mathematics test. The results of progress saved on the website of Khan Academy but secured for private issues.

Tasks were completed. 1) We examined the effectiveness of e-learning with partial substitution of teacher in the classroom both in developing and developed countries with the similar researches. As in the USA, the usage of Khan Academy had a good impact on the learners and teachers, because there were more volunteer participants. What about developing countries like Kazakhstan and Chile, the challenges of technological equipment were existing, also the attitude of students towards e-learning was quite out of trust. Overall, the good results were shown in the improvement of 11 grader student who voluntarily participated in faculty classes to work on gap in knowledge of Mathematics.

2) The questionnaire for parents and caregivers of the students in the focus group was also distributed. We have found out, that majority of parents these days do not help students with their home assignments or difficult topics. But those who help, they explain the concept by themselves, with the help of specialists or apps with solutions. However, it showed that parents mostly do not use internet and technologies to learn independently from school, but dependent on the textbooks and opinions of specialists who are available through the social platforms.

3) In the process of application of the methods used in the research for daily basis, we have deduced several ways of improvements that can be recommended to make affordable and free education for everyone within our circumstances of 2019-2020. They are written in the Chapter III in the section of recommendations and findings. Also, the challenges that can be constrained by the limits of the school financing or scheduling the classes.

Nowadays, it is possible to move freely online and offline from one university/study groups to another in order to gain specific skills and knowledge in need. The online platforms are creating new approaches to study, and the legacy of admission of

certificates become more flexible than ever, so everyone who has a desire and need to learn - able to do it in every corner of the country and the world. However, in Kazakhstan it is popular to study offline rather than online at schools and universities. That is the possible opportunity to raise awareness on gaining a skill on how to learn and teach online for the further usage by students and teachers to have advantage in investigation into human resources.

Literature Review

The definition of human capital first appeared in the works of the economist Theodor Schultz (1961) and it compares the developed countries with countries of the third world. There is written that undeveloped countries have natural resources, land as also main capital for economic growth, but human capital as a knowledge. By widening the knowledge people can choose in way more options, so the needs will be satisfied and then the country might have a proper working system by deviation.

This term of human capital is revised and reviewed several times, so the recent official definition for it is written in the United Nations (2009) that it is a productive wealth incorporate in skills, knowledge and labour. This might be acquired through formal and informal education. This might include the education as a self-awareness (including health issues related questions, wellbeing by understanding financial education and so forth) and gaining skills and knowledge itself. Thus, the knowledge and understanding how things work can affiliate the main sustainable development goals to fight against hunger, poverty, inequality, and then grow economically and become stable in political way. Because creating new and more opportunities will increase a demand on skilled and educated labour, which might be beneficial for the sustainable economic growth that is different from economic development (United Nations, 2015).

The human capital can be measured by Human Development Index (HDI) which is mostly and directly influenced by education. Kim (2010) wrote that education plays

crucial role for the labour in handling a new technologies and approaches by being flexible and professional.

As Professor Schultz (1963) explained, education is needed not just for moral and cultural satisfaction in learning, but it also plays more important role in building human capital starting even from the kindergarten and ending with professional trainings.

The educational reforms in Kazakhstan as explained (Zhanguzhinova, Magauova, & Nauryzbaeva, 2016) are creating new methods and approaches to become student-centred at schools and higher educational systems, so the students will be able to gain skills and knowledge related for modern needs. Thus, it is considered to learn how to learn through the digital resources and not being attached to the location of the resident as a dependence.

The impact of Human Capital on economic growth was also researched by Angui Macham (2015) and the findings inform us that there might be a link between human capital and economic growth. So, this idea can be applied to research in qualitative method for the further studies in the case of Kazakhstan.

According to Diego Lanzi (2004) in his paper Capabilities, Human Capital and Education, the well designed and developed educational policies may influence the several aspects of educational profits for the human capability. He wrote that development in educational policies will influence not only professional skills, but also skills for the life as reasoning, interpersonal/intrapersonal relationships, working within the group considering the peers' points of views and so forth. We think it is an advantage of educational provision to make Education for all considering the needs of the students and teachers, and especially local needs.

Also, the importance of teaching how to learn and interact matters more than scores of the test on the finishing of the school or classes. We should shift the focus

of the teaching methods not on just getting higher points on Mathematics, but we need to teach students to cooperate, be compatible in subject matter and to gain skills that will be helpful for the further researches, entrepreneurship and so forth.

According to the report of UNDP on Capacity Development (UNDP, n.d.) the criteria to measure the capacity development can be divided into three levels: individual level, organizational level and enabling level. The idea of implementation of this point is to increase the effective methods in each level. For example, teaching how to learn effectively and be cooperative, then giving chances by creating organizations to gather people with ideas to change economics based on local needs (starting with regional problems) and then supporting with a reforms and other policies that will be encouraging such activities. In the end we will have social active entrepreneurs raised from the school or kindergarten that help in the local growth and then in country's economic growth.

Returning to the education, we should input the idea of multiple intelligence of Gardner (Lane, C., n.d.) into the everyday working style of each teacher, so the students will study in a safe environment and with their own way of learning style. However, to come for this result we need to prepare resources which means teaching skills for educating strong minds. Mostly, the good quality workshops or classes are designed on the feedbacks of majority who are practicing the learnt materials. So, that is why the content of the classes that are changing based on the feedbacks is ca be considered as good quality too, we assume.

In this paper we are going to expand the individual level comprehension. Because we should identify are the schools ready to change the learning methods or not yet. And stakeholders of this process are teachers, students, administration and parents.

Methods

The research was conducted in mixed approach: literature review, survey and conducting experimental class in order to identify the local needs of the students

and parents. The case study is related to common Kazakhstan's school (Kazakh linguistic form) in Almaty by conducting a survey how children's attitude towards learning way (of mathematics) and then trying to recreate blended learning class. Mixed methods are used in this research, because the factors needed to be recorded from several perspectives and taking into consideration the availability to collect the data. First is the conduction of experimental classes with school students on learning with the help of digital resource in the face of Khan Academy in English. The second is surveys on the learning preferences of the students to study Mathematics and survey on parents' approach of helping the child to study.

Sample

There were studied 25 students of 7th grade and 2 students of 11th grade. 7 graders were learning Mathematics with the help of Khan Academy in required way, whereas the 11 graders came to the new faculty class voluntarily to close the gaps in knowledge. We also asked parents of the students on helping to the students with Math and their way usage of internet for learning. They were surveyed voluntarily. In the classwork was used for the first-time online platform named Khan Academy to conduct math classes in English with tutorials and assignments in there.

Research questions of this paper:

- *What is the connection between education investment and economic growth?*

To have an employee who would be able to work at special places we need more than (at least) 13 years or 18 years (10 or 12 years of school, then college or university for 4 years or 7 years for medical university, and then master degree for 2 years and postgraduate studies prolong for 3 years) to prepare and train employee to start a career. The quickest way is to hire a professional abroad. However, we should consider the problems that are related to unspoken or unwritten culture of locals. Because still in Kazakhstan we might have the cases of racism, ethnicity conflict problems and other problems related to differentiation of societies or individuals. Also, we should take into account the cases when the nation wants to keep its

"purity of blood lines" which can consist of saving the culture from the foreign influences.

There is another question for this sub-question: if the country's nation has literacy level above 95%, then could this fact predict the economic success of that country? The answer is - it is complicated, because people who only finished a school cannot have a high-paid job due to skills and specific systematic knowledge, so most of them have to work in a low position job, even if they know all the program of the school. It is still not enough to work on tolerance of the older generation, thus younger generation (their children, siblings, grandchildren, other relatives and social ties).

- *What can be changed to raise properly new human capital that can be perfect to do job in homeland?*

We assume based on literature review, that students who learnt several skills and gained a knowledge to use it for solving problems of local systems, markets and so forth can be more successful than the foreigner who wants to implement the same method which worked effectively in developed country. The tendencies in the local place are more understandable in intellectual and sometimes instinctive way to the person who raised in that area than just adapting a methods and social development programs without knowing and understanding the culture and way of thinking of the local people.

Thus, it would be better to raise the open minded and well-rounded individuals to help to create small businesses in the beginnings and then encourage in governmental level with policies. Still there is a need to explain to individuals the need in self-learning to improve skills needed to change the local life into the better one if there are problems. The individuals and groups should not just rely on the government, because not all 100% of the individuals use the opportunities given by government because sometimes, they are just not ready to act.

- *How new approach can change the students' attitude toward self-learning and blended learning?*

A new approach of learning due to governmental quarantine which is online teaching, might have an effect to open new ways to learn in customized path and time to learn new programs in a high quality. For example, UNESCO published list of useful sources on their official webpage, so kids who were able to understand and use English for learning could get differentiated content from all over the world (2020). Also, it might raise the self-determination of human capitals for the further studies.

The skills that are generating productivity can be compatible against of traditional way of lecturing and learning/studying. The influence of informational society can change the understanding of pragmatic skills and knowledge above the educational system writes Becker and Murphy (2003).

Data Collection

Starting with the first survey, there were approached 27 students, but answered for 100% only 12 of them. 8 of them were girls and 4 boys. The questions were as following:

Which of the following methods are the easiest way to learn new concept in mathematics? The answers were: reading the textbook, listening the explanation of a teacher, doing practice works and watching how to solve the problems. The answers had to be given the 5 places, where 1 means "I like this method most" and 4 "I do not like this method at all". Most of the answers that took number 1 related to the method of practice on your own how to solve a problem. Least desired method was related to reading a textbook where most respondents chose to put 3, 4, 5.

And the other interesting question related to the educational quality was "How do you think, what is the most inconvenient obstacle in studying mathematics". The

answers were: “Not having a sufficient enough time to learn”, “Not being able to recall the last topics related to new topic”, “The method of teaching of the teacher”, “The lack of problems to solve”, “the lack of feedback on problems and the ways how they are solved”.

The answers had the same meanings as the previous one where 1 means agreeing most and 5 means agreeing least. So, the children chose to give number one as “Not being able to recall the last topics related to new topic”. the number two is considered as “Not having a sufficient enough time to learn”, what about less agreed (5) it is “The method of teaching of the teacher”.
The next survey is conducted with the parents of the students in the focus group. The 19 respondents mostly women and parents of 7 graders. They had asked several questions, and there are some of them:

1. Have you ever hired a tutor for mathematics? The answers: 63.2% - no, 36.8 - yes.
2. Have you ever used online websites and platforms to learn how to solve similar problem on mathematics? Answers: 57.9% - no, 42.1% - yes.
3. And there was a question how frequently they were using a website. The answers of respondents: 52.6% - never, 21.1% - sometimes once in a week, 15.8% - very rare once or twice in a month, 5.3% - every time, 5.3% - sometimes.

Mostly parents and children were using YouTube and Khan Academy for learning purposes, and other rest of the parents encouraged to use Kazakh platforms as Bilimland. There were section with their own answers, so respondents answered they do not use exactly one website or do not use it, some of the respondents openly told they are using app called Photomath.

The results of the experiment with using Khan Academy with 7 graders showed, that not all of the students ready to use online platforms and electronic devices to study and to connect to internet. The 7th grade has enrolled to Khan Academy class as 28 students, where 12 students never used the app to do assignments. And from the 11th grade there were 2 students where only one of them were using actively the app to study Khan Academy.

Findings and Discussion

It is important to note, that researcher (author) was leading the research in pedagogical way at school, so the results might be narrow related to teaching and studying mathematics. However, in a parallel way we were monitoring the results from reports on how many minutes each student spend in the Khan Academy (www.khanacademy.org) during learning concepts and what were their attitude when they faced the problem that they could not solve (did they use hints, passed with several tries or skipped).

In the research we have faced findings from the results of the experiment:

1) There is a need to educate parents to internet literacy. The parents influence to the coherence of the students on points to use modern technologies as the peers. If parents will be in the same direction as teacher of Mathematics, then the flow from offline class to blended learning class will be smoothly held in and out of the classroom.
2) Learning Mathematics for students mostly associated with the instructions on how to solve the equations and other problems. The survey results showed, that students mostly learn from the demonstration of the problem's way of solution rather than working in a group and listening to the lectures. This explains why the teacher in the class plays several roles, starting from the manager, administrator, leader, instructor and ending as a lecturer.
3) The finding that English as a language to study Mathematics crushed (with 7 graders), because it was impossible to flow in the short time of period into completely English environment in the class. The students need a proper explanation in Kazakh to learn faster how to solve Mathematical problems, that is why they were not interested in studying the subject in other language and consume time and energy to learn language rather than Mathematics. It was related to time issues at school and schedule that does not allow to work more than 40 minutes per day. Also, it was dependent on the students' thoughts on their marks and points, as well as control summative and formative assessments where they must show their knowledge on curriculum topics in Kazakh. So, there

was no opportunities to demonstrate the benefits of using English in Kazakh classes at that moment. Although, English is widely used language in the world and majority of the new information comes with this language first.

Although, the results of students using Khan academy shows us that they started to spend more time on doing assignments on Mathematics with visual progress. As students told in the class, they do not afraid of making mistakes (and get low scores or points from the teacher) while solving equations, but they are disappointed to earn less points when they cannot solve something right in a row. However, instead of 40 minutes every day of Mathematics, students were spending more than an hour to challenge themselves and each other by sharing their scores and gained skills to solve problems quicker than they were doing. The students of faculty also mentioned that they could learn Mathematics after the school and with feedback, and they started to understand and use English for Mathematics. In the test from the Ministry of Education and Science the 11th grader Nursultan Nurmaganbet (personal communication, May 13, 2020) was able to prove his that the points earlier on Math he reached were 5 on Math and about 15 on Math literacy, and in March he got 16 on Mathematical literacy and 23 on Mathematics itself. From this we can assume that this method should be approved in the faculty classes on Mathematics with volunteers rather than in Mathematics class where a lot of obstacles can be the challenge to conduct a proper research.

Possibilities to make this research different and more successful:

1) It will be beneficial to work with more than one researcher for the one classroom to conduct a research, because in most of the computer classes, students need the instructor and the assistant.
2) There will be questions regarding to the processes, so the researchers or teachers need to be ready to manage class effectively. They expected to know the subject, English and the aim of the research.
3) To design surveys with contacts of each asked student/parent/teacher, so it can be used for the further interviews or clarifications on some points to interpret

the answers right. The survey design should be improved and asked to encourage interviewee to complete the survey for 100%.

4) It will be beneficial to conduct a parallel research on how using blended or distance learning approach might influence on student's improving the skills on time management, self-learning independence and so on which are not related to Mathematics but related to personal effectiveness.

This research accidentally turned to the best option of using distance learning tools due to COVID-19 lockdown. However, in the peaceful time, the results might be worse. However, with this research now we have more opportunities to gain data from several sources to analyse what helps to students to stay on streak while learning Mathematics with digital resources and what kind of tutorials are engaging for the students of Kazakhstani schools.

Significance of the Study

It is the first case study with the experiment on students of Kazakh (speaking) classes to use English platform to learn mathematics and see the results. The results for 2020 is quite less developed, but the results of the using the content and language integrated learning is good as expectations for the first time. Most of the students proved that they are learning more than they were studying in traditional classes, because they could use their free time to learn by competing with each other rather than spending it to other not productive activities. Also, students mentioned that they are using English to study Mathematics and by repetitive commands of tutor in the video they did fine job on learning new words and phrases for everyday use. This means those children who were using continuously the platform improved their language in natural way and also improved the understandings of some Mathematical concepts. However, the problems of the study were about lack of researchers and lack of devices and internet access in the classroom. Mostly students were studying in our online class from home. Although, the new informational environment which is developed by quarantine due to COVID-19 is giving more opportunities to students to have access to online classes and courses

with a teacher. So, it might be a great opening research article for those who are going to research the effectiveness and role of (online) education to gain skills, knowledge for productive encouragement to study and become new qualified human capital of the economics of Kazakhstan. The education out of curriculum might trigger the learning more and deeper to widen choices for every new generation and might lead to economic growth by having in a capital sufficient professional.

The results of the research can be used in different ways. Firstly, as a starting point for the new research related to implementation of digital resource in English in Mathematics class. Because this thesis paper consists of the pioneer walkthrough route which explains what kinds of problems will be facing the teacher and how to solve those problems. The teachers or researchers can contact by creating a network to study implementation of digital resource in English in Mathematics class for Kazakh or Russian language groups to create more reports for the future insights. Secondly, the scientists or researchers can use my report for their studies in qualitative and quantitative research how it is implementing in other school in Kazakhstan.

Conclusions

Firstly, the education and human capacity has a close tight relationship to influence economic growth in gaining sustainable development by fighting against poverty starting in local regions and hunger, leading to equality between people and many more. Therefore to increase the capacity the overall works should be done in 3 levels, starting from individuals that are ready to get the new skills which will be helpful for professional and personal growth, and ending with reforms that will take into consideration the needs of the groups of locals. This would be beneficial if the reforms are working for nation and individuals who are using opportunities within the country.

Secondly, the research shows that local views on using digital resource in foreign language to get the information for free and in a high quality was quite

unpredictable. Children can work with resources, but there is a lack of technologies or access to the internet to cover all 100% children. Also, the perception of the internet by parents and their children as a entertainment and social interaction source is quite devastating, because this might stack the progress of learning through the internet to get a degree or skill.

Lastly, the quarantine is opening a new approach to teach and learn how to study by itself through the gaining of learning and research skills. This is beneficial to have a new generation that will have a critical and analytical skills to work with big data and enormous information. This time students will be leading by teachers and will have encouragements from parents by staying at home and learning through digital platforms.

References

1. Becker, G.S., & Murphy, K.M. (2003). *Social Economics: Market Behaviour in a Social Environment*. Belknap Press: An Imprint of Harvard University Press.
2. Bowles, S., & Gintis, H. (2011). *Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life.* Illinois: Haymarket Books.
3. JSC Centre for International Programs (n.d.). *History of the Program*. Retrieved from https://www.bolashak.gov.kz/en/o-stipendii/istoriya-razvitiya.html
4. Lane, C. (n.d.) *Gardner's Multiple Intelligences.* The distance learning technology resource guide. Retrieved from http://www.tecweb.org/styles/gardner.html
5. Lanzi, D. (2004). Capabilities, Human Capital and Education, *Proceedings of the 4th International Conference on the Capability Approach, Pavia*, Italy. Retrieved from: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.499.1496&rep=rep1&type=pdf
6. Light, D. and Pierson, E. (2014). Increasing Student Engagement in Math: The use of Khan Academy in Chilean Classrooms. *International Journal of Education and Development using ICT*, 10(2), 103-119.
7. Macham, D. A. (2015). *Economic Growth and Development in Sub-Saharan Africa, Asia, and Latin America: The Impact of Human Capital.* Master of Art Thesis, State University of New York, Buffalo, USA. Retrieved from https://digitalcommons.buffalostate.edu/cgi/view

8. Schultz, T. W. (1963). *The Economic Value of Education.* New York: Columbia University Press.
9. Schultz, T.W. (1961). Investment in human capital. *The American Economic Review*, 51(1), 1-17.
10. Schultz. (2009). Occupational adaptation theory. In E. C. Crepeau, Willard's & Spackman's Occupational Therapy. 11th Edition. Philadelphia: Lippincott Williams & Wilkins
11. Terada-Hagiwara, A. and Kim, Y. J. (2010). *A survey on the relationship between education and growth with implications for developing Asia*. ADB Economics Working paper series, WPS112904, No. 236.
12. UNDP. (n.d.). *Capacity Development: a UNDP Primer.* Retrieved from: https://www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/capacity-development-a-undp-primer/CDG_PrimerReport_final_web.pdf
13. UNESCO (2020). *Distance learning solutions.* Retrieved from https://en.unesco.org/covid19/educationresponse/solutions
14. UNICEF (2020). UN calls for greater protection for children affected by the COVID-19 crisis in Kazakhstan. Retrieved from https://www.unicef.org/kazakhstan/en/press-releases/un-calls-greater-protection-children-affected-covid-19-crisis-kazakhstan
15. United Nations (2015). *Sustainable Development Goals for a sustained economic development path.* Retrieved from https://sustainabledevelopment.un.org/index.php?page=view&type=9
16. United Nations (2009). *Millennium Development Goals Report.* New York, NY: United Nations. Department of Public Information.
17. Zhanguzhinova M.Y., Magauova A.S. and Nauryzbaeva A.S. (2016.) Competence Approach in Vocational Education of Kazakhstan in Conditions of Innovation and Industrial Development of the Society. *Rural Environment. Education. Personality,* ISSN 2255- 808X, 128-133.

Information about the authors

1. **Alina Rakhmatullina**, PhD student
   University of International Business
   rakhmatullina.alina@gmail.com

2. **Dinara Yermekbayeva**, PhD in Economics,
   Docent, University of International Business
   ermekbaevad@mail.ru

3. **Aisha Aidossova**, Master's degree *Student in Econimics*
   University of International Business
   aidossovaa@mail.ru

4. **Bakytnur Uteyev**, PhD in Economics
   University of International Business
   bakytnur2013@mail.ru

5. **Saltanat Abishova**
   PhD student, University of International Business
   salta_1990s@mail.ru

6. **Klara Mamutova**
   DBA student, University of International Business
   mamutovaklarita@gmail.com

7. **Leila Mardenova**, Master in Mathematics
   University of International Business
   mardenova.leila@gmail.com

Author Guidelines

- All papers are assumed to be original and not under consideration with any other publication.
- Manuscripts should be submitted in English through the Manuscript Submission system of the Journal.
- All manuscripts must be free of grammatical and/or punctuation errors.
- Manuscript files should be provided in Microsoft Word format.
- Articles should be between 3000 and 5000 words in length including the text, tables, figures and references.
- All papers must contain the following sections:
  - Abstract (not descriptive, it should be detailed and structured as it is required by the guidelines) - Maximum 250 words including maximum 6 keywords
  - Introduction
  - Literature Review
  - Methodology
  - Analysis/Findings/Results
  - Discussions
  - Conclusions
  - Implications
  - Limitations/Further Research
  - References
- Only detailed abstracts are accepted. The abstract of a paper must be structured and should contain the following sections:
  - Goals and objectives of the research
  - Methodology
  - Results/Findings
  - Novelty/Originality/Value
  - Theoretical or Practical Implications
  - Key words
- All references cited in the article **must be listed in the reference section.**
- **APA (6thedition) style should be used** for **in-text citations**, **tables** (if any), **figures** (if any), and **reference list**.
- **Do NOT include the AUTHOR(s)' NAME(s), AFFILIATION and ACKNOWLEDGEMENTS in the file name.**
- **Do NOT include the AUTHOR(s)' NAME(s), AFFILIATION in a submitted Manuscript.**
- **the AUTHOR(s)' NAME(s), AFFILIATION must be written in a separate Cover Page for the purpose of a blind review process.**