

Human Capital as a Determining Factor of Increasing the Competitiveness

El Capital Humano como Factor Determinante para Aumentar la Competitividad

Gaukhar AMANOVA [1](#); Gulzhan TURYSBEKOVA [2](#); Raikhan TAZHIBAYEVA [3](#); Bibigul IZATULLAEVA [4](#); Saule KALTAYEVA [5](#)

Recibido: 14/07/2017 • Aprobado: 30/07/2017

Contents

[1. Introduction](#)

[2. Method and Results](#)

[3. Discussion](#)

[4. Conclusion](#)

[References](#)

ABSTRACT:

The collapse of the Soviet Union and the transition of the former Soviet republics to market economy occurred in difficult economic conditions. The collapse of a single economic space is one of the main reasons for economic crisis. Thus, new independent states had to create new industrial centers on their territory.

However, the lack of experience has slowed the process and set in motion the human capital formation as a factor contributing to economic growth. Thus, the purpose of this article is to consider human resources development in the post-Soviet space in the case of the Republic of Kazakhstan. We have used complementary research methods, namely, specific historical, statistical and comparative analysis. This article provides generalized experience of native and foreign experts on the subject of the study. We have revealed that human capital development is directly dependent on the quality of education. In this connection, the Republic of Kazakhstan should strengthen educational system modernization. We should note that Kazakhstan's accession to the Bologna Process and the implementation of the Bolashah program show the increase of the Human Development Index (HDI) value – up to 56th place. This article also provides recommendations for further renewal of education in

RESUMEN:

El colapso de la Unión Soviética y la transición de las ex repúblicas soviéticas a la economía de mercado se produjo en condiciones económicas difíciles. El colapso de un solo espacio económico es uno de los principales motivos de la crisis económica. Así, los nuevos estados independientes tuvieron que crear nuevos centros industriales en su territorio. Sin embargo, la falta de experiencia ha frenado el proceso y puesto en marcha la formación del capital humano como factor que contribuye al crecimiento económico. Por lo tanto, el propósito de este artículo es considerar el desarrollo de los recursos humanos en el espacio post-soviético en el caso de la República de Kazajstán. Hemos utilizado métodos de investigación complementarios, a saber, análisis específicos históricos, estadísticos y comparativos. Este artículo proporciona una experiencia generalizada de expertos nativos y extranjeros sobre el tema del estudio. Hemos revelado que el desarrollo del capital humano depende directamente de la calidad de la educación. En este sentido, la República de Kazajstán debería fortalecer la modernización del sistema educativo. Cabe señalar que la adhesión de Kazajstán al Proceso de Bolonia y la aplicación del programa Bolashah muestran el aumento del valor del Índice de Desarrollo Humano (IDH) hasta el 56º lugar. Este

the Republic of Kazakhstan, as a factor of human capital increase.

Keywords: human capital, Human Development Index (HDI), former Soviet countries, economy innovative development, educational system modernization.

artículo también ofrece recomendaciones para la renovación de la educación en la República de Kazajstán, como un factor de aumento del capital humano.

Palabras clave: capital humano, Índice de Desarrollo Humano (IDH), países soviéticos, economía innovadora, modernización del sistema educativo.

1. Introduction

In today's world, human capital is increasingly becoming a source of vitality and the development of any enterprise and society as a whole. The human capital is a determining factor in increasing the competitiveness of enterprises, economic growth and efficiency of the economy as a whole, rather than the equipment and inventory (Hobdari, Sun, & Goodstein, 2016; Gennaioli et al., 2013, pp. 105-164; Seitova, 2016, pp. 11081-11096).

In the conditions of formation of an innovative economy which is constantly in a state of movement, modernization and renovation, the human capital is not only a factor of economic growth, but it determines the level of competitiveness and an appropriate place in the world economy (Yegorov, 2004, pp. 85-96; Machlup, 2014,; Hanushek, 2013, pp. 204-2012). The human resources are the most important factors in the economy. The human resources are people who make up the working population of the country, and have a certain human capital (Machlup, 2013; Han, Han, & Brass, 2014, pp. 54-71; Romer, 2014, pp. 765-816). Obviously, the higher the quality of human resources, the greater the opportunities for high-quality economic growth.

The efficient use of human resources is becoming ever more urgent task for Kazakhstan, that has chosen an innovative path of development. According to the World Bank, as part of the national wealth of the United States share of human capital is 76%, Western Europe 74%, while in Russia 50% (Dobrynin, Dyatlov, & Tsyrenova, 2006). Since Kazakhstan on economic content is close to Russia, then it is safe to assume that today the weight of national human capital of Kazakhstan also gets behind the developed countries. There is an urgent need to improve the national human capital through the implementation of a comprehensive program of its increase.

The development of human capital in modern conditions will significantly improve the competitiveness of enterprises.

As a rule, the benefits have those firms that focus on education, skills and health of its staff (Mizanbekova, 2012, pp. 20-24; Martin, McNally, & Kay, 2013, pp. 211-224; Lutz, Butz, & Samir, 2014). The world experience shows that education, science, and innovative technologies based on these have always been the key to all economic success, increase their efficiency and competitiveness (Han, Han, & Brass, 2014, pp. 54-71; Acemoglu, Gallego, & Robinson, 2014, pp. 875-912; Romer, 2014, pp. 765-816). Therefore, the relevance of the problem is that based on a study of trends in the development of human capital in the modern economy, to determine the most effective ways of improving its impact on the competitiveness of enterprises

The main purpose is to overview development tendencies in the field of human resources in Kazakhstan since its independence until the present time, outlining challenges and trends. The internationally recognized HDI framework was applied for viewing the changing dynamics in Kazakhstan's human resources.

The novelty and significance of the proposed overview is that the framework of two economists Harbison and Myers (1964) was applied for analyzing the status of human resources development of Kazakhstan in the context of complex socio-economic societal transformation, which enabled to provide an overview of human resources development from 1991-2015.

2. Method and Results

Theoretical and methodological basis of the research involves provisions of the theory of

sustainable development management of economy in the context of its variety of forms and integration processes of state development.

We have used the following methods: abstract, logical, analytical, specific historical, statistical and comparative analysis.

We have also generalized the experience of native and foreign scholars on the issue of research.

In 1991 the fall of the USSR involved rapid disruption of socio-economic bonds, termination of state financing of factories, bankruptcy and closure of numerous manufacturing enterprises, unemployment, low salaries, deterioration of living standards, health and education systems. In the meantime, an economic decline destroyed many formal and informal links between collective farms, employing organizations, factories and schools, which had supplied manpower because most of farms and factories went bankrupt or were downsized.

Transitional process to the market economy underlined serious disadvantages of the previous Soviet system. Being rich in natural resources and minerals, Kazakhstan was turned into a raw-materials producing appendage of the Russian Federation. Kazakhstan's vast territories with diverse flora and fauna were allowed to successfully develop agriculture and animal breeding, mining and heavy industries. In addition, the northern region of Kazakhstan was used for nuclear testing, aerospace experiments and space shuttle launching. Kazakhstan has a well-developed agriculture which specialized mostly in grain (wheat), cotton and livestock. There are also a number of well-established industries such as oil, coal, iron ore, manganese, chromite, lead, zinc, copper, titanium, bauxite, gold, silver, phosphates, sulfur, iron and steel; tractors and other agricultural machinery, electric motors, and construction materials.

In this mode, the centrally planned economy created a unique phenomenon in human resource development in one of the biggest and most powerful states of the world of that time. Such a phenomenon was characterized by a distinct trend of "disproportionate" human resource development across the vast territory of the Soviet Union at that time. Since the Soviet economy mandated that each Soviet Republic specialize only in a few areas/industry/or economic sectors, it consequently resulted in a lack of knowledge and expertise in those spheres that were not part of the Republic's economy. The situation differed from one Republic of the Soviet Union to another. However, one commonality the Republics shared was that most of the economic sectors and industries were undeveloped or partially developed. Therefore, this factor determined a significant lack of knowledge and expertise in some strategically important areas.

Logically, since the Soviet political and socio-economic system was centralized and operated by Moscow, Kazakhstan as well as other former Soviet Union Republics developed a deep socio-economic dependence. Such socio-economic dependence was characterized by a narrow specialization in certain fields of economic activities practiced by each Union Republic. As a result, Kazakhstan successfully developed agricultural sector, animal breeding, mining and natural resources extraction along with oil and gas industry. However, the other sectors of economy in Kazakhstan were underdeveloped or partially developed and depended on other Republics of the Soviet Union.

In a pursuit of building a new independent state, the government of Kazakhstan has undertaken multifaceted reforming initiatives aimed to eliminate the socio-economic dependency established by the Soviet centralized system, which had created not only significant economic deficiencies, but resulted in a shortage of high skills level manpower and underutilized manpower in the sectors, which had been historically underdeveloped in Kazakhstan.

In the first decade of Kazakhstan's independence the socio-economic shift to the market based economy significantly affected the state of human resources in the country. According to the international Human Development Index (HDI) ranking of 175 countries established by UNDP, there are four categories that characterize the level of HRD development: underdeveloped,

partially developed, semi-advanced and advanced. Historically, Kazakhstan, as a part of the former Soviet Union, belonged to the advanced category of HRD. In terms of the HDI, after collapse of the USSR Kazakhstan's rank changed from the 54th in 1993 to 73rd in 2000 and to 76th in 2005 among the 175 countries in the world (UNDP, 2004).

During the first decade of independence, Kazakhstan remained in the group with medium HDI largely due to high education levels and the relatively satisfactory condition of the health of its population. According to the UNDP report on Kazakhstan in 1998, the main reason for decrease in the HDI was the economic decline, which accounted for 84% of the decrease (UNDP, 2004). In sum, the first years of independence were characterized by a struggle with severe economic decline in all spheres, attempts to master the basic concepts of market-based economy and the creation of executive and legislative bases. Needless to say, in the process of transition, Kazakhstan has experienced tremendous shifts in its economic, political, social and cultural frameworks, which required substantial efforts on behalf of the nation and the government as well.

For the purpose of understanding and overview of the changing dynamics in human resource development in Kazakhstan, the framework of economists Harbison and Myers was applied. Harbison and Myers composite index of human resource development (HRD) provides a comprehensive and systematic approach for viewing the socio-economic development status of Kazakhstan in comparison with other countries in the world. The composite index determines the development level of a given country based on the HDI (Human Development Index) which distinguishes the four levels of HRD: (1) underdeveloped; (2) partially developed; (3) semi-advanced and (4) advanced. HDI analysis suggests measuring the country's stock of human capital and measuring the gross or net additions to this stock (Harbison, & Myers, 1964).

In order to comprehensively do that, it is necessary to examine the levels of educational attainment within formal levels of education (primary/elementary, secondary and higher education), number of persons, in relation to the population or labor force, who are in high level occupations and number of selected strategic occupational groups such as scientists, engineers, managers, teachers (all levels), doctors, dentists, scientific & engineering technicians, nurses & medical assistants and skilled worker category (Harbison, & Myers, 1964).

According to the socio-economic indicators and HDI analysis informed by Harbison and Myers, Kazakhstan has characteristics of both semi-developed (advanced) and partially developed countries. Therefore, Kazakhstan encounters challenges related to human resources, which are common for this category. In fact, there are two major challenges requiring attention. The first is related to the shortages of "high-level" manpower with critical skills and competence, and the second one is related to the redundant or underutilized manpower.

Understandably enough that the identified human resources challenges of Kazakhstan represent inevitable consequences of a profound societal shift from a socialist to a market based economy. At the state level, the challenges in terms of the human resources occurred as a result of challenges related to the deficiencies in economy, underdeveloped structures and a lack of expertise in the most important strategically critical areas required for further societal development.

Given the complexity of Kazakhstan's transition to a market-based economy and world globalization context, the government comprehensive approach included multifaceted national socio-economic development strategies that targeted internal and international domains.

Comprehensive measures and actions undertaken by the government to fulfill numerous strategic development plans for Kazakhstan's socio-economic development and sustainability include a wide range of laws, policies, development strategies and reforms such as Industrial Innovation Development Strategy for 2003-2015, Kazakhstan Strategy 2030 Strategy and Strategy 2050, National Conception for Education Development (2005-2010; 2010-2020), which encompasses areas of economics, politics and education. The main goal behind the strategic development for Kazakhstan is to enter the list of the top 50 developed countries in

the world by 2030.

International domain represented the globalization, which influences the internal human resources development trends in Kazakhstan as well as its development on a larger scale. Therefore, Kazakhstan's economic development is directly linked to the nation's ability to acquire and utilize technical and socio-economic knowledge, whereas the globalization tendency for knowledge based society enables the expediting such processes.

In order to successfully achieve nationwide strategic plans and goals in all socio-economic spheres, the government reforming initiatives largely focus on developing human resources in Kazakhstan. Needless to say, the importance of a knowledge-based economy through utilization of competitive knowledge and advanced technology becomes vitally import for Kazakhstan's positioning in global arena and strengthening the free market economy through embracing international standards of practice at all levels.

On one hand, human resources become the driving force behind all profound transformations and government multifaceted initiatives in the country and the challenges associated with human resources development in the country have been addressed at the state level. On the other hand, higher education in Kazakhstan becomes the so-called mechanism for educating and preparing highly qualified experts and professionals, who will be implementing such profound socio-economic transformations.

In large part, the higher education reforms focus on strengthening the liaison between higher education institutions and industry/business, enabling innovations of different types. Owing to its nature, higher education institutions bear the responsibility for dispensing knowledge, producing highly skilled labor and research output to meet the economic needs which promotes progress. Historically, in the periods of social transformation, higher education institutions take on the key role in the processes of social change and development through facilitation of new cultural values, training and socializing members of a new civil society.

In such manner, higher education in Kazakhstan is viewed as the most foundational liaison between academia, research and innovation in industry and business of the country. Integration of these three components represents the concept of a national innovation system which will allow Kazakhstan to successfully establish its own competitive advantage in the global arena. In this mode, the higher learning, research and industry implications act as essential components of cultural, socio-economic and environmentally sustainable development of individuals as well as the country in general at various levels.

In relation to this, many surveys on technical innovation in the US show that US producing companies emphasize the strategic importance of academic research in the development of new industrial products and processes. According to Chapman and Austin on average, 19% of new products and 15% of new processes were directly based on academic research. The proportion was even higher, 44% and 37% respectively, in high technology industries much as drugs, instruments and information processing [6]. There is a relation between academic research and industrial applications because there is an impact of universities and spillover effects of academic research on industrial research and technology as well as innovations. As a result, the higher education system bears the responsibility for sustaining appropriate national development in a society in the context of various environmental factors both domestic and international.

According to Harbison and Myers, human resource development is the process of increasing the knowledge, the skills, and the capacities of all people in a society, whereas the primary level of human resource development (HRD) is the formal education which includes various forms of secondary education and higher education institutions (Chapman, & Austin, 2002). Being the first-level of HRD, the significant role and importance of higher education for the national development worldwide has given proof of its viability and of its ability to change and to induce change and progress in society. The higher education system happens to be a multifaceted phenomenon that combines a variety of institutions, systems, and diverse people, which serve

multiple purposes for the progress of any society.

One of the most important government initiatives focused on addressing issues of human resources development is joining the Bologna Convention in 2010. The Bologna Convention is the initiative of leading European countries, which agreed to establish and design a framework ensuring comparability in the standards and quality of higher education qualifications. The Bologna declaration was signed in the Bologna University, Italy, in 1999 by the Education Ministers of 29 European countries, which was part of strengthening the European Union integration. In the light of globalization, the process of opening up of the Bologna process to the countries from other parts of the world began in Prague (2001), Berlin (2003), Bergen (2005), London (2007), and Leuven (2009) (Bologna Convention, 2014).

The Bologna process provided Kazakhstan with an opportunity for integration into the international education and research arena. The Bologna Convention was signed by 49 countries and aims to reform the higher education system in order to create overall convergence at an international level. The purpose is to establish a common framework of academic programs, credit system and equivalent degrees to enable cooperation in teaching and research, and enhance the mobility of students, faculty and researchers as well as increase the employability of graduates

More specifically, this includes: adoption of comparable degrees and introduction of three academic levels of higher learning system (bachelor, master and PhD programs); transition to the credit hours system; promotion of student and faculty mobility through international cooperation; promotion of cooperation in academic quality assurance and lifelong learning; and promotion of students participation in the HE administration (Bologna Convention, 2014).

The efforts of Kazakhstan's government multidimensional initiatives focused on elimination of the socio-economic dependence through restructuring the centralized economy and creating its own self-sufficient socio-economic economic system. In order to perform such profound shift from one political and socio-economic order to another, the country urgently needed highly qualified manpower with updated knowledge in various fields.

In addition to the internationalization of higher education and reforming of all educational and research system in the country, other government measures were undertaken. In an attempt to address the shortage of highly qualified manpower and expedite the transition process, in 1993 the government established the Presidential scholarship "Bolashak" for young citizens of Kazakhstan which provided an opportunity to receive education in USA, Europe and Asia. This scholarship was intended to improve and bring young and qualified people of a new generation to Kazakhstan. In 2005 the quantity of Bolashak recipients was increased to 3,000 each year. It has been a success, and the inflow is significant since more and more students return home and start working in various spheres.

However, one program aiming to fill in the gaps for highly qualified specialists in all fields is far from being sufficient. In fact the program addresses only short term HRD problems by providing highly educated graduates with Western type of education directly to the labor market, so they can start contributing to their country's development now. Nevertheless, the shortage of highly qualified specialists in all priority fields for Kazakhstan requires an approach that is capable to encompass the "roots of the problem" which involves reforming and restructuring the system of higher education.

Thus, the strengthening of human resources of Kazakhstan is a challenge that involves gradual process and cannot be fully accomplished fast. In reality, Kazakhstan's socio-economic shift to the market economy involves a profound deconstruction process of socio-cultural identity of all social actors at the individual, professional and organizational levels.

Thanks to consistent and comprehensive government measures, after twenty four years of independence Kazakhstan gradually is becoming self-sufficient in the high-level manpower. However, it is still not sufficient in terms of scientific and technical manpower. Therefore, the government deals with the problems when advanced countries export high-level manpower to

Kazakhstan to establish certain functions, and at the same time they tend to lure high-level manpower away from the country. A dependence on expatriate manpower in oil and gas industry, technical, petroleum and chemical engineering, computer and information sciences is especially evident. The country needs to develop a solid knowledge base in these fields in order to progress economically in the nearest future.

Despite abovementioned challenges, the efforts of Kazakhstan's government multifaceted initiatives focused on elimination of the socio-economic dependence through restructuring the centralized economy and creating its own self-sufficient socio-economic economic system have started paying off. More qualified and skilled human resources are well prepared for working in strategically important fields like computer science, communications technology, microbiology, physics, chemistry, applied math, all types of engineering specializations.

According to the recent Human Resources Development Report issued by the UNDP in 2014, Kazakhstan's HDI for 2013 HDI demonstrates a significantly positive tendency increasing HDI value of the country. As a result, "in 2013 Kazakhstan was placed in the 70th position in comparison to the 73rd position in the years of 2011-2012". In other terms, Kazakhstan's progress is evident "between 1990 and 2013, indicating that HDI value increased from 0.686 to 0.757". In 2014, the Republic of Kazakhstan filled the 56th place with index value 0.778 (UNDP, 2014).

Given the fact that in terms of the HDI, Kazakhstan's rank changed "from the 54th in 1993 to 73rd in 2000, to 76th in 2005, to 73rd position in 2012 and reached 70th position in 2013", largely underlines the progress of Kazakhstan in improving development patterns of its human resources and laying out a solid foundation for the further successful socio-economic development of the country (UNDP, 2014).

The education is necessary for the formation, distribution and use of knowledge, the creation of scientific and technological capacities, that's why the investment in science and development of new technologies have become the most efficient way to use resources.

The education is a fundamental factor in the development of innovative economy. Well-educated and skilled people are the sources of the creation, dissemination and effective use of knowledge. So it is important to ensure that education on the one hand is universal, on the other hand, is flexible and market-oriented. Due to changes in the economy, the values are also changed, so standardization gives way to diversity and variability underlying the innovative development, the work of the individual is measured not only by his ability to perform the current tasks well, but also the ability to think creatively, generate new ideas and not to stop on them.

3. Discussion

The central role of higher education for the successful societal development of any country cannot be overemphasized due to the fact that higher education is a liaison between research and industry innovation. There is a link between the higher education, research and innovation and in this relation, many surveys on technical innovation in the US and other countries show that producing companies emphasize the strategic importance of academic research in the development of new industrial products and processes.

Numerous studies on university-industry spillovers indicate that there is a link between formal university education, research and productivity growth in different industries and businesses. For instance, empirical evidence collected on 12 Japanese industries for the period of 1973 to 1998, shows that the supply of highly educated human capital (workforce) from universities to industry plays an important role in the productivity growth of Japanese manufacturing industries during the period of 1973-1985, which has started declining due to the weakening of the connection between the university-industry spillovers. In other words, Japan's economic growth and outstanding technological achievements and performances until 1990 was primarily explained by the significant improvement in labor quality, which helped Japan to catch up with

the advanced economies of that time (Hyeog, 2004).

According to Mansfield, the key university function is the role of universities in stimulating innovation, because it is an abundant source of new ideas that are transferred to the market. Econometric arguments can be made that academic research has a high return of investment (ROI). For example, in the United States on average, 19% of new products and 15% of new processes were directly based on academic research. The proportion was even higher, 44% and 37% respectively, in high technology industries much as drugs, instruments and information processing (Mansfield, 1992, pp. 295-296).

Following the approach of the socio-cultural construct frames, Kazakhstan's social changes through the Parsons' lenses indicates that all social reformative measures in the country have to do with a profound societal transformation called "a shift from a socialist socio-economic economy to a market based economy", which is characterized by a significant change in economic, social and political system of the country (Parsons, 1937). This concept underlines the notion that the shift to the market economy involves construction of new social structures, values and patterns at the state and organizational levels, which are so important for the development of any society.

Thus, human capital development will stimulate market economy development in the Republic of Kazakhstan.

Human capital development will help to increase the economic potential, to search for innovative ways of production. However, the renewal of educational system is necessary to continue by increasing funding, introducing innovative teaching methods and by strengthening international cooperation:

1. Educational programs development and implementation along with international programs;
 2. Interchange of experience by giving students and teaching staff the opportunity to learn in the foreign educational organizations under exchange programs, as well as by employing foreign experts in national educational institutions;
 3. Joint research.
-

4. Conclusion

The Republic of Kazakhstan, like other former Soviet countries, has faced an acute shortage of human capital after the collapse of the Soviet Union, as each Soviet republic had own specialization in certain types of production. Lack of experience in other "non-specialized" types of production had a significant negative impact on the economies of the former Soviet republics, entailing an economic dependence, including on the Russian Federation.

The Republic of Kazakhstan is carrying out a series of educational reforms for human capital development. Kazakhstan's accession to the Bologna process and Bolashak program implementation have become a key moment in educational system modernization.

Human capital development will help to increase the economic potential, to search for innovative ways of production. However, the renewal of educational system is necessary to continue by strengthening international cooperation in this field.

References

Yegorov, S. (2004). Human factor and economic growth in the context of post-industrialization. *Economy Questions*, 5, 85-96.

Dobrynin, A. I, Dyatlov, S. A., & Tsyrenova, E. D. (2006). *Human capital in transitive economy: formation, assessment, efficiency*. Nauka, St. Peterburgs.

Mizanbekova, S. K. (2012). Human Resources as Part of the Labor Market. In: *Proceedings of the International Scientific and Practical Conference Prospects of Human Resources Development in the Context of Globalization*. Al-Farabi Kazakh National University, Almaty, 20-24.

- UNDP. (2004). *Human Development Report 2004: Education for All*. URL: hdr.undp.org/countries/profiles (Accessed Date 25 December).
- Harbison, F., & Myers, C. (1964). *Education, manpower, and economic growth: Strategies for Human Resource Development*. McGraw Hill, New York.
- Chapman, D. W., & Austin, A. E. (2002). *Higher education in developing world: Changing contexts and institutional responses*. McGraw Publishers, New York.
- Bologna Convention. (2014). *European Higher Education Area*. Accessed on 10th May 2014.
- UNDP. (2014). *Human Development Report 2014*. Kazakhstan. URL: http://ec.europa.eu/education/policy/higher-education/bologna-process_en.htm.
- Hyeog, U. K. (2004). *Productivity growth and R&D spillovers from university to industry*. Institute of Economic Research, Tokyo.
- Mansfield, E. (1992). Academic research and industrial innovation: A further note. *Research Policy*, 21(3), 295-296.
- Parsons, T. (1937). *Structure of Social Action*. McGraw Hill, New York I.
- Hobdari, B., Sun, P., & Goodstein, J. (2016). Multi-dimensional institutional reforms and board human and social capital in emerging markets. *Academy of Management Proceedings*, 1.
- Gennaioli, N., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2013). Human capital and regional development. *The Quarterly Journal of Economics*, 128(1), 105-164.
- Machlup, F. (2014). *Knowledge: Its Creation, Distribution and Economic Significance*. Volume III: The Economics of Information and Human Capital. Princeton University Press, Princeton.
- Martin, B. C., McNally, J.J., & Kay, M. J. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing*, 28(2), 211-224.
- Hanushek, E. A. (2013). Economic growth in developing countries: The role of human capital. *Economics of Education Review*, 213(37), 204-212.
- Lutz, W., Butz, W. P., & Samir, K. C. (2014). *World population and human capital in the twenty-first century*. OUP Oxford, Oxford.
- Han, J., Han, J., & Brass, D. J. (2014). Human capital diversity in the creation of social capital for team creativity. *Journal of Organizational Behavior*, 35(1), 54-71.
- Acemoglu, D., Gallego, F.A., & Robinson, J. A. (2014). Institutions, human capital, and development. *Annual Review of Economics*, 6(1), 875-912.
- Romer, P. M. (2014). Human capital and growth: Theory and evidence. *Annals of Economics and Finance*, 15(1), 765-816.
- Seitova, D. (2016). Perspectives on the Present State and Future of Higher Education Faculty Development in Kazakhstan: Implications for National Human Resource Development. *International Journal of Environmental and Science Education*, 11(18), 11081-11096.

-
1. International Kazakh-Turkish University named after H.A.Yassawi, Turkestan, Kazakhstan
 2. Eurasian National University named after Gumilev, Astana, Kazakhstan. E-mail: Gulzhan72@mail.ru
 3. International Kazakh-Turkish University named after H.A.Yassawi, Turkestan, Kazakhstan
 4. International Kazakh-Turkish University named after H.A.Yassawi, Turkestan, Kazakhstan
 5. International Kazakh-Turkish University named after H.A.Yassawi, Turkestan, Kazakhstan

