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**IMPROVING THE DEVELOPMENT OF INTELLECTUAL  
POTENTIAL IN KAZAKHSTAN AS A FACTOR  
OF INNOVATIVE AND ECONOMIC GROWTH**

**Abstract.** Innovative economy creates new factors of economic development, where non-material sectors dominate: science, education, services, etc. The transition to a new stage of development places knowledge and education on a special place in the modern economic mechanism, therefore the dominant factor of competition and development becomes highly qualified, unique skills and abilities of a person, that is, his human capital. Globally, scientific and technological progress is recognized as a vital factor in the transition to sustainable economic growth and is most often associated with the creation of innovative mechanisms combining science, technology, entrepreneurship and management. In order to effectively achieve strategic goals, the infrastructure of higher education must be complemented by innovative structures (centers, complexes, companies, institutes) so that higher education institutions can form educational, scientific and innovative complexes, being part of the national system. innovation system.

**Keywords:** human capital, assessment, modernization, policy, competitiveness, potential.

**INTRODUCTION**

The main priority for the development of the economy of Kazakhstan in the Presidential Address today are innovative tools. Successful implementation of the strategic objectives set by the President of the Republic of Kazakhstan in the Message to the people of the country for the next decade, Kazakhstan's leadership in the Central Asian region and throughout the post-Soviet space is ensured by the growth of competitiveness of the economy due to such major factors as innovative development and human potential. Essentially, Kazakhstan is entering a new stage of its development. The stage of forming the foundations of the economy of the future, the use of new technologies, ideas and approaches, innovative development and growth of competitiveness, modernization and diversification of production. The movement in this direction will be the more successful, the more fully taken into account the global trends in socio-economic progress.

Human development is the process of empowering a person. The most important of them is the opportunity to live a long and healthy life, gain knowledge and have a decent standard of living. And if these opportunities are not available, then many other opportunities remain unavailable. The main goal of human development is the creation of such an environment of political, economic, social and ecological environment that would allow people to enjoy a healthy and creative life for a long time. The theoretical developments of the Nobel Prize winner Amartya Sen, in particular, his paper Development as Empowerment, published in 1989, had a decisive influence on the formation of a modern understanding of the development process. Sen sees the development process not as an increase in material or economic wealth, but as a process of expanding a person's ability to live a long and healthy life, have access to knowledge, do more things, and so on. At the same time, the process of empowerment, first of all, is associated with the expansion of the freedom of human choice.

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## MAIN PART

Based on these ideas, a group of experts of the United Nations Development Program (UNDP) developed a conceptual approach to "human" development (or human development), and later published the first global Human Development Report for 1990, which later became annual. The concept of human development sets as the main goal of economic development not the growth of GNP (gross national product), but the possibilities for the development of man himself, the expansion of his freedom of choice. At present, this concept is global in nature, which is reflected in all program documents of international organizations working under the auspices of the UN.

**The concept of human development comes from the fact that human life is valuable not because people are capable of producing benefits, but because it is the goal of this development.**

**Studies show that today a new type of economic development has emerged in the world based on the use of knowledge, human capital and innovation as the most important resources. The national wealth of developed countries is only 5% natural resources, 18% - productive capital, and the main place - 77% - is occupied by the knowledge and ability to dispose of them. At the heart of the economy of developed countries is intellectual potential.**

Therefore, there is a need to form an innovative, intellectual economy in order to firmly take a worthy place in the world ranking of states, to define new horizons towards which to strive. Here, I believe that not only the oil and gas industry should become the national flagship, but also other sectors of the economy. If we develop only one direction, we face the so-called "Dutch disease". The essence of this concept is that a state that possesses significant resources (gas, oil, ferrous, non-ferrous metals, and so on) is ultimately doomed to "economic extinction," accompanied by social tension and the transformation of such an economy into a global raw material appendage. In order for us to avoid these problems, it is necessary to increase labor productivity growth, invest in infrastructure, develop telecommunications, strengthen the financial and tax system, improve the efficiency of public administration, as well as create favorable conditions for business development.

Thus, the successful implementation of the Strategies "Kazakhstan-2030", "Kazakhstan-2050" should facilitate the implementation of qualitative changes in the structure of the economy of Kazakhstan, which will lead to its sustainable growth, based on the effective use of human, produced and natural capital, Kazakhstan's entry into a new level social development and social order. It is obvious that the goal set by the leadership of the Republic of Kazakhstan can be achieved only on the basis of a deep diversification of the country's economy, by stimulating innovation, introducing and developing competitive industries integrated into regional and world markets.

Due to its attractiveness, the idea of developing human potential quickly spread throughout the world. In Kazakhstan, with the development of the first National Human Development Report in 1995, the concept of human development is becoming increasingly important as an "alternative" way of planning and prioritizing the development of the country. On the basis of this report, a presentation is made annually for parliamentarians, executive authorities, non-governmental organizations and the general public. Social needs of the population are more reflected in the official plans of the republic, including the priorities outlined in the strategy "Kazakhstan-2030", the program to reduce poverty. The annual messages of the President of the Republic of Kazakhstan contain provisions important for society, reflecting the principles of human development. Such attention to a person-oriented policy can be viewed as an indicator of the changing situation in our country.

The Human Development Report laid the foundation for a wide range of informational and analytical materials related to various aspects of human life. However, the problem of replacing simple digital data, such as GNP, with a mass of tables (and numerous analysis results) is that the latter lack practicality and convenience of a rough GNP indicator. Therefore, in contrast to GNP, another simple indicator was created - the Human Development Index (HDI) - this is a cumulative indicator of the level of human development in the country, so sometimes it is used as a synonym for such concepts as "quality of life" or "standard of living".

The index measures the country's achievements in terms of health status, education and the actual income of its citizens, in three main areas:

1. Health and longevity, as measured by life expectancy at birth.
2. Access to education, measured by the adult literacy rate and cumulative gross enrollment ratio.
3. A decent standard of living, as measured by the gross domestic product (GDP) per capita in US dollars at purchasing power parity (PPP).

These three dimensions are standardized as numerical values from 0 to 1, the geometric mean (formerly arithmetic) of which is a cumulative indicator of the HDI in the range from 0 to 1. Then the states are ranked based on this indicator. All countries in the ranking are classified in four categories:

1. Countries with very high HDI levels.
2. Countries with high HDI.
3. Countries with medium HDI.
4. Countries with low HDI.

The HDI is not intended to assess human development in a short period of time, since some indicator components do not change immediately in response to political changes. The same with the average number of years of education and life expectancy at birth. However, it is very useful to review the HDI progress in the medium and long term.

The use of HDI can be improved by disaggregating it. The overall country index may obscure the fact that different groups of people within a country may have different levels of human development, whether the difference is due to region, gender, or type of terrain (urban or rural).

When calculating the HDI by region, the main problem is the choice of the indicator that would most objectively reflect the accessibility of the population to resources. At the country level, GDP per capita is taken as such an indicator according to the UNDP methodology. In the regional context, the analogue of this indicator is the gross regional product (GRP), calculated by the production method. The use of this indicator in calculating the HDI is the most vulnerable point in the methodology for calculating the HDI by region. The high proportion in the production of GRP of export-oriented industries creates a picture of the imaginary economic well-being of the population of the region.

Considering the criticism of the use of GRP per capita as an indicator characterizing access to resources that provide a decent standard of living, in preparing data and calculating the HDI in the regional context, national income reports of the population were used along with this indicator. It should be noted that the GDP per capita and monetary incomes at the republican level differed in 1993-2008 by 2.9-4.1 times. This is due to three reasons.

Table 1 - Indicators of HDI of Kazakhstan in comparison with other countries

	HDI index	HDI rating	Lifeexpectancyatbirth	Expected number of years of study	Average number of years of study	GNP per capita (PPP in \$)
Kazakhstan	0.714	66	65.4	15.1	10.3	10.234
Ukraine	0.710	69	68.6	14.6	11.3	6.535
Russian Federation	0.719	65	67.2	14.1	8.8	15.258
Czech Republic	0.841	28	76.9	15.2	12.3	22.678
Europe and Central Asia	0.702	-	70.4	13.9	9.4	12.555
High HDI	0.717	-	72.6	13.8	8.3	12.286

Due to the aforementioned reasons, the transfer of cash income per capita into US dollars at PPP will lead to an underestimation of access to resources. Therefore, in order to match the result at the republican level, cash income per capita converted by PPP into US dollars is multiplied by a coefficient representing the ratio of GDP per capita to cash income per capita. The same ratio is used to adjust cash income per

capita and by region. As a result, the ratios of the monetary incomes of the population of the regions with the national average remain.

Kazakhstan is also compared to the Czech Republic, a country with a very high level of development.

According to the UNDP Human Development Report "The Real Wealth of Nations: Paths to Human Development" for 2010 [1].

The ranking of quality of life is headed by Norway, which ranked first until 2006, then ceded it to Iceland, but in 2008 it returned to the top of the list and all this time continues to lead in 2018. Australia, New Zealand, the United States, Ireland, Liechtenstein, the Netherlands, Canada, Sweden and Germany are also among the top ten leaders in the ranking - countries with a very high level of development.

Of all the states of the former USSR, only Estonia was able to enter the first group of states with a very high level of human development - it occupies 34th place. Other Baltic countries are in the group of developed countries - Lithuania takes 44th place, Latvia - 48. In this group, along with Russia and Kazakhstan, are Belarus (61st), Azerbaijan (67), Ukraine (67), Georgia (74) and Armenia (76). All other states of the former USSR are included in the group of countries with an average level of development: Turkmenistan (87th place), Moldova (99th place - the lowest figure in Europe), Uzbekistan (102), Kyrgyzstan (109), Tajikistan (112). The list of 169 countries with the lowest level of development closes the list: Zimbabwe (last place with HDI 0.140), Democratic Republic of Congo (168) and Niger (167).

Human potential has not only the material side. According to the concept of human development, income is only one of the choices that a person would like to have. And, despite its significance, it does not define all the diversity of life. In addition, economic well-being directly depends on the intellectual level of the nation, because education is becoming the most important factor of international competitiveness. Kazakhstan has the best education system among middle-income countries.

The development of spiritual potential, moral strength is the component that determines the systemic development of human potential. Returning to our coordinate system, we see that impressive economic growth is accompanied by a steady increase in the quality of life of the population. Kazakhstan has a lot to strive for. In the United Nations human capital development ranking, a group of countries with a very high level is defined, in which only the former USSR countries have been able to enter so far, taking 34th place. The development of the republic over the years of independence proves that Kazakhstan has all the opportunities to enter this group of countries.

In the formation of the national innovation system of Kazakhstan is not provided and such an important component of the innovation economy as the development of a small and medium-sized business system is poorly involved. In a competitive environment, a small business must constantly offer an innovative product, which means either developing new technologies or gaining access to technologies developed by others. Therefore, Kazakhstan faces the need to create a wide network of innovation infrastructure subjects, whose task is to increase the efficiency of R & D, to create favorable conditions for the organization and development of small high-tech firms.

In the overwhelming majority of universities, there is no intellectual property management system that regulates the distribution of rights to intellectual property objects (IPOs) created by scientists, there is no assessment and accounting of IPOs as intangible assets. The level of legal literacy on intellectual property among scientists is extremely low. An analysis of the status of issues related to the commercialization of intellectual property in start-up companies, showed that, unfortunately, little attention is paid to this problem. Common disadvantages of start-up companies are as follows:

1) the lack of a relationship between the strategy of protecting intellectual property and the business model of the company;

2) the relationships for the use of the OIC that belong to the "parent" university / institution are not settled;

3) relations with employees of start-up companies regarding the distribution of rights to the OIP under the project are not settled;

4) there is no accounting of OIC as intangible assets;

5) there is no clear understanding of the structure of the license contract, the calculation of royalties, the procedure for concluding and registering such a contract, etc.

Failure to resolve issues with intellectual property makes the business of these companies very vulnerable - competitors can at any time challenge the rights of companies to use exclusive rights to the

technologies transferred to them, and to exclusive rights to newly created IPOs. At the same time, attracting investments in this case is unlikely, since there are almost no documents regulating and securing the rights to IPO, the technologies used by the company.

## CONCLUSION

Technology commercialization is a very important and timely phenomenon for Kazakhstani science. The process of transferring scientific research to industry already has widespread support in the world; in Kazakhstan such a mechanism is only getting better and it is making positive changes. The experience of OECD countries demonstrates the need to improve and develop the system for commercializing the results of scientific and technological activities, including the legal framework governing technology commercialization, tools for financial support from both the government and the private sector, and improving the competence and skills of research personnel, attracting young people to the innovation environment.

Having crossed the milestone of the 25th anniversary of independence, Kazakhstan needs to actively pursue initiatives initiated by the President in the framework of the Third Modernization of the Economy, and reinforce the success with the modernization of public consciousness. Together, this should lead to political and economic modernization of the country, as well as improve the quality of life of citizens.

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### **ҚАЗАҚСТАНДАҒЫ ИННОВАЦИЯЛЫҚ-ЭКОНОМИКАЛЫҚ ӨСУДІҢ ФАКТОРЫ РЕТІНДЕ ИНТЕЛЛЕКТУАЛДЫҚ ӘЛЕУЕТТІ ДАМУДЫ ЖАҚСARTU**

**Аннотация.** Инновациялық экономика экономиканы дамытудың жаңа факторларын жасайды, онда материалдық емес секторлар басым: ғылым, білім беру, қызмет көрсету және т.б. Дамудың жаңа кезеңіне көшу білім мен білім беруді заманауи экономикалық механизмде ерекше орынға айналдырады және сондықтан да басым фактор болып табылады. Бәсекелестік пен даму жоғары білікті, адамның бірегей дағдылары мен қабілеттеріне, яғни адами капиталға айналады. Әлемде ғылыми және технологиялық прогресс тұрақты экономикалық өсуге көшудің маңызды факторы болып табылады және ғылымды, технологияны, кәсіпкерлікті және басқаруды біріктіретін инновациялық механизмдерді құрумен байланысты. Стратегиялық мақсаттарға тиімді қол жеткізу үшін жоғары оқу орындарының инфрақұрылымын инновациялық құрылымдар (орталықтар, кешендер, компаниялар, институттар) толықтыруы тиіс, сондықтан жоғары оқу орындары ұлттық жүйенің бөлігі болып табылатын білім беру, ғылыми және инновациялық кешендерді қалыптастыра алады.

**Түйін сөздер:** адам капиталы, бағалау, жаңғырту, саясат, бәсекеге қабілеттілік, әлеует.

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### **СОВЕРШЕНСТВОВАНИЕ РАЗВИТИЯ ИНТЕЛЛЕКТУАЛЬНОГО ПОТЕНЦИАЛА В КАЗАХСТАНЕ КАК ФАКТОР ИННОВАЦИОННОГО И ЭКОНОМИЧЕСКОГО РОСТА**

**Аннотация.** Инновационная экономика создает новые факторы экономического развития, где доминируют нематериальные сектора: наука, образование, услуги и т. Д. Переход к новому этапу развития ставит знания и образование на особое место в современном экономическом механизме, поэтому является доминирующим фактором. Конкуренция и развития становится высококвалифицированным, уникальным умением и способностями человека, то есть его человеческого капитала. Во всем мире научно-технический прогресс признан жизненно важным фактором перехода к устойчивому экономическому росту и чаще всего



связан с созданием инновационных механизмов, объединяющих науку, технологии, предпринимательство и управление. Для эффективного достижения стратегических целей инфраструктура высшего образования должна быть дополнена инновационными структурами (центрами, комплексами, компаниями, институтами), с тем чтобы высшие учебные заведения могли образовывать образовательные, научные и инновационные комплексы, являющиеся частью национальной системы. инновационная система.

**Ключевые слова:** человеческий капитал, оценка, модернизация, политика, конкурентоспособность, потенциал.

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