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The competitiveness and innovative development of Kazakhstan

In times of globalization, the main task in all countries is to formulate and support the competitiveness of the private economic entities and national economies. Given the variety of market, criteria are considered, new ways of improving domestic economic capacity of the country and increase productivity. With each passing day, the demand for new products and new production. Competitiveness – it is not only the value of the parameter and the quality of industrial products, as well as innovation management and investment activities. Regional ranking was based on the final score assigned by the results of a comprehensive evaluation of four factors: economic development, business climate, the human dimension, the SME survey. At the end of 2014 in Astana, Almaty and Mangystau have become leaders competitiveness rankings. Analysts Kazakh Forbes analyzed and compiled a list of the regions and cities of national significance on economic indicators.

Thus, Astana has won first place among 16 regions of the country. The experts noted that in a situation when economic growth slows and it becomes a major investor in the state, Astana is a particularly interesting place for business. “It is here that will take place Expo-2017 on the organization of which Kazakhstan plans to spend about \$ 3 billion (about sequestration posts at the time of writing there was no ranking).

Key words: competitiveness, the organization competitiveness, product, market, economic sector.

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Қазақстандағы кәсіпкерлік және инновациялық даму

Ғаламдану жағдайында барлық елдердің негізгі міндеті ұлттық шаруашылық пен жекелеген экономикалық субъектілердің бәсекелес қабілетін қалыптастыру және қолдау болып табылады. Нарықтық талаптардың ерекшеліктерін ескере отырып, мемлекеттің ішкі экономикалық мүмкіндіктері мен өндірістік ахуалын одан ары жақсарту мақсатында жаңа бағыттар белгіленуде. Өндірісті жаңаша құрудың, шығарылатын өнімдердің сұранысын арттырудың маңыздылығы да артуда. Бәсекеге қабілеттілік – өнеркәсіптік өнімнің құндық және сапалық параметрлерін ғана қамтымай, сондай-ақ кәсіпорын қызметіндегі инвестиция мен инновациялық басқаруға, менеджмент деңгейіне тәуелді жан-жақты ұғым. Республикада индустриалды-инновациялық стратегия негізінде, өңірлердің ішінде бәсекелестік қабілеті жоғары және экспортқа бейімделген секторларды анықтау арқылы, жалпы өңірлердің дамуына институционалды қолдау көрсету бүгін мемлекеттің негізгі мақсаты болып отыр.

Жалпы айтқанда, ел экономикасын өрге сүйрейтін елімізде әлеуметтік-экономикалық жаңғыртудың басты бағытының бірі – индустриалды-инновациялық даму халықтың әлеуметтік жағдайын жақсартуға оң ықпалын тигізетіндігі ақиқат. Материалды қалай болсын қолдану тек қана Alashainasy.kz сілтемесімен бірге рұқсат етіледі.

Түйін сөздер: бәсеке, кәсіпорын, бәсекеге қабілеттілік, өнім, нарық, экономикалық сала.

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Конкурентоспособность и инновационное развитие Казахстана

С каждым днем растет спрос на новые товары и на новые производства. Конкурентоспособность – это ценность и параметр не только качества производственных товаров, а также управления инновациями и инвестиции в деятельности организации. Ранжирование регионов производилось на основе итоговых баллов, присвоенных по результатам комплексной оценки четырех факторов: экономическое развитие, бизнес-климат, человеческое измерение, опрос МСБ. По итогам 2014 года, Астана, Мангистау и Алматы стали лидерами рейтинга конкурентоспособности. Аналитики казахстанского Forbes провели анализ и составили список областей и городов республиканского значения по экономическим показателям.

Так, Астана заняла первое место среди 16 регионов страны. Эксперты заметили, что в ситуации, когда рост экономики замедляется, а основным инвестором становится государство, Астана является особенно интересным для бизнеса местом. «Именно здесь будет проходить Expo-2017, на организацию которого Казахстан планирует потратить примерно \$3 млрд (сообщений о секвестре на момент подготовки рейтинга не было).

Ключевые слова: конкурентность, организация, конкурентоспособность, продукт, рынок, экономическая отрасль.

**THE COMPETITIVENESS
AND INNOVATIVE
DEVELOPMENT OF
KAZAKHSTAN**

The Message of the President Nursultan Nazarbayev to people of Kazakhstan noted that one of the main strategic interests of the republic's foreign policy is becoming one of the 50 most competitive countries of the world and strengthen the country's competitiveness in international markets. Competitiveness issues occupy a special place in the field of economic development, as they are one of the conditions of industrial-innovative development and the liberalization of foreign trade activities of the republic.

In modern conditions the competitiveness of the country is an indication of the status and prospects of development of the economic system, determines the nature of its participation in the international division of labor, acts as a guarantor of economic security and the ability to produce goods and services that satisfy the requirements of the global market, the implementation of which runs on the welfare of the population [1].

The article analyzes the competitiveness and innovation potential of the economy of Kazakhstan based on global indices of various international organizations. Showing the country's achievements and weaknesses in these areas.

In the developed Strategic Plan of Development of Kazakhstan till 2020 priority actions that create conditions for post-crisis development of the country, focused on improving the business and investment climate, strengthening the country's financial system and improving the efficiency of public administration. Qualitative growth in the economy will be based on the physical infrastructure modernization, human resource development and strengthening of the institutional framework to facilitate accelerated industrial-innovative development of the country. One of the strategic goals set by the President of the Republic of Kazakhstan NA Nazarbayev, was the country's entry into the 50 most competitive countries with a favorable business climate that allows to attract significant foreign investments in non-primary sector of the economy.

According to the Global Competitiveness Report of the World Economic Forum for 2012-2013, Kazakhstan took the 50th place in the ranking of the most competitive countries of the world. The Global Competitiveness Index of the World Economic Forum's ranking of countries in terms of the competitiveness of their economies by assessing 12 performance indicators. «Kazakhstan raised

its rating on the 1 position and took the 50th place in this year. The advantages of the country are a flexible and efficient labor market (15) and a stable macroeconomic environment (23), while many countries are not effective in these areas. The main challenges for Kazakhstan are the areas of health and primary education (97), the competitiveness of companies (94), as well as potential potential for innovation (84) «[2].

It should be noted that this position is the best in the history of Kazakhstan's participation in the ranking of the Global Competitiveness Index (GCI) in 2005. Kazakhstan is the second result among the CIS countries after Azerbaijan (39th place). Rus-

sia occupies 64th place, Georgia – 72th, Armenia – 79th, Ukraine – 84th, Moldova – 89th, Kyrgyz Republic -121th place. Tajikistan this year did not submit their data.

Improving positions of Kazakhstan was observed in most factors of competitiveness, however, there was a decrease in some positions. The most significant progress was noted by the factor of innovative potential (84; 19), in which Kazakhstan has improved its ranking by 19 positions. There have been positive changes for items such as the Institutes (55; 11), financial market development (103, 12) and the market efficiency of goods and services (56; 15).

Table 1 – Ranking of Kazakhstan in the Global Competitiveness Index for 2012-2013

Factors	2012	2013	Change
Overall rating of Kazakhstan	51	50	1
I.Group: General requirements	47	48	-1
Institutions	66	55	11
Infrastructure	67	62	5
Microeconomic environment	16	23	-7
Health and primary education	92	97	-5
II.Factors efficiency	56	53	3
Higher education and training	58	54	4
Efficiency of the market for goods and services	71	56	15
Labor market efficiency	19	15	4
Financial market development	115	103	12
Technological readiness	55	57	-2
Market size	55	54	1
III.Group: Factors of innovative development	104	87	17
The competitiveness of companies	9	94	5
Innovation potential	103	84	19

Since 2012, the Global Competitiveness Index (GCI) Kazakhstan participates as countries with economies in transition from the 2nd stage (stage of effective development) to the 3rd stage of development (stage of innovation development).

The total average rating of Kazakhstan is 4.41 (4.38 in 2012), which allows the country to stay in

the ranking between Italy (49) and Portugal (51). For the fifth year in a row in the championship ranking keeps Switzerland (1st place in the rating, unchanged compared to the previous year). Three most competitive countries of the world remains unchanged. It – Switzerland (1), Singapore (2) and Finland (3). In the 10 most competitive countries of

the world dominated by European countries. Also in the 10 are 3 Asian countries, including Singapore is the second competitive country in the world, and Hong Kong and Japan took seventh and ninth places, respectively. This year for the first time the United States improved its ranking, rising by 2 points in the

last four years. It is important to note that the country's best 10's are characterized by a high level of innovation and a strong institutional environment.

Comprehensive assessment of the level of development of the innovation sphere in Kazakhstan and some other countries is shown in Figure 1.

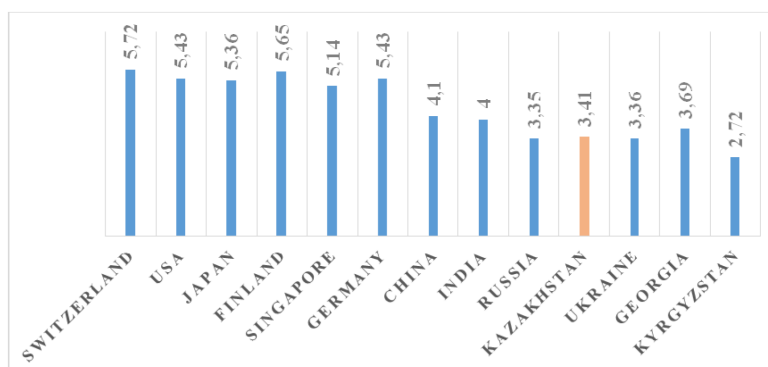


Figure 1 – The index of the level of innovation, 2013

Changes in the rating of innovative development of Kazakhstan for the period 2006-2014 years presented, in Table 2.

Table 2 – Changes in the rating of innovative development of Kazakhstan for the period 2006-2014 years

Components	Years								
	2006	2007	2008	2009	20010	2011	2012	2013	2014
Innovation potential	59	70	75	62	78	102	116	103	84
Ability to innovate	-	62	64	50	50	75	101	92	74
Quality of the research organization	52	53	63	58	80	112	121	108	102
Company costs for research and development	44	57	65	62	60	84	107	94	77
Cooperation of universities and business in research and development	54	63	71	64	77	111	119	90	79
State procurement of high-tech products	45	56	62	59	62	83	93	71	58
Availability of scientists and engineers	88	100	98	83	74	91	106	104	98
Patents per 1 million. people	69	67	83	72	85	81	81	65	67

As we can see from Table 2, Kazakhstan has consistently improved its position in the ranking, moving up consistently. Although it should be noted that in the pre-crisis period of Kazakhstan on the development of innovation was on 59 place in

the ranking of 104 countries. In addition to these indicators, also taken account of the boom and the following innovation index components, such as:

- Technological innovation and the degree of penetration,

- Technological readiness,
 - The introduction of technology at the enterprise level,
 - The prevalence of foreign technology licensing,
 - As far as direct investments bring new technologies to the country,
 - The quality of science and mathematics education, cooperation of universities and industry in research and development,
 - The quality of R & D institutions and scientific and technical equipment,
 - Protection of intellectual property, access to venture capital

Ease of initiatives in business, the level of administrative barriers. In addition to the WEF rankings, there are other indices of innovative development, in which Kazakhstan is also present. The most famous in the world of theory and practice of comparative analysis of the innovation development of the countries are as follows:

The Global Innovation Index (Index, GII), which is calculated by the analytical center of the Lausanne business school INSEAD, Switzerland [3].

International BCG Innovation Index (Index BCG, mff BCG), which is calculated by experts of Boston Consulting Group, USA.

Innovation capacity index of international research structure EFD -Global Consulting Network.

Innovation Index of the European innovation scoreboard (Eigoreap Innovation Scoreboard Summary Innovation Index, SII).

The above indices differ in their components, algorithm integration and scale of values of the indicators. The most relevant and popular among the experts is considered by the Global Innovation Index INSEAD.

INSEAD Global Innovation Index is calculated since 2007. The business school INSEAD experts. The Global Innovation Index is composed of 80 different variables that describe in detail the innovative development of countries at different levels of economic development. The index is calculated as a weighted sum of the scores of the two groups of indicators:

- Disposable resources and conditions for innovation: Institutions;
 - Human capital and research;
 - Infrastructure;
 - The development of the internal market;
 - Business Development.
- Achieved practical results of the innovation (Innovation Output):
 - The development of technology and knowledge-based economy;

The results of creative activity. Thus, the final index is the ratio of costs and effects, allowing you to objectively evaluate the effectiveness of efforts to develop innovations in one country or another.

BCG International Innovation Index is calculated in US according to the method of the Boston Consulting Group. GII BCG index includes six sub-indices:

- Fiscal Policy;
- Other policies (education policy, trade policy, regulatory policy, intellectual property policy, immigration policy, infrastructure policy).
- Other policies (education policy, trade policy, regulatory policy, intellectual property policy, immigration policy, in the infrastructure of the policy);
 - innovative environment (public education, quality of the workforce, quality of infrastructure, the business environment);
 - R & D results (R & D investments, publications and knowledge transfer, etc.);
 - Business performance (high-tech exports, productivity);
 - The impact of innovation on society.

The focus of the BCG model focuses on the cash flow of the organization, which is sent either to conduct transactions in a particular business area, or arises as a result of such operations.

It is believed that the level of income, and cash flow is in a very strong function of the rate of market growth and relative share of the organization in this market. The rate of growth of the business organization determine the pace at which the organization will use the money cash [4].

The BCG model basic business objectives of the organization suggests the growth rate of profits and the masses. At the same set of allowed strategic decisions as to how to achieve these goals, limited to four options:

- Increasing the share of business organization in the market.
- The struggle for the preservation of the share of the business organization in the market
- Maximum use of the organization of business position in the market.
- Exemption from this type of business.

These decisions suggest that BCG model depends on the type of business organization in the strategic space. Currently, an international innovation index company no longer expects to focusing on a model calculation of the Index's top 50 innovative companies.

Index of innovative features (Innovation Capacity Index, ICI) calculated an international

research structure EFD – Global Network. The calculation uses the following indicators: indicators on innovation expenditures, product innovation, its own means of financing innovation, new technology and education personnel. ICI index includes five sub-indices with variable 61:

- human capital, training and social integration;
- Institutional environment;
- Use of IT (information technology);
- R & D (research and development);
- legal framework.

– European Innovation scoreboard Index – Innovation Union Scoreboard (IUS)

At the beginning of the 2000s as part of a Eurobarometer poll, conducted by the European Commission, was carried out an additional survey Innobarometr, the results of which have been issued in the form of the corresponding report. In the future, this survey has become an annual event. In 2010, Inna Barometer was dedicated to innovation in the public sector and was conducted among 4000 European public organizations. The results showed that the organizational and process innovations are gaining more and more widespread in government agencies, that is embodied in simplifying customer access to information, better quality to meet their needs, as well as the improvement of the working conditions of civil servants.

The methodology of calculation of these indices improved every year, and is reflected in the annual report entitled “Scoreboard innovative achievements of the European Union (Eigoreap shpouaiop Scoreboard)”. 2010 in connection with the advent of the European Union initiative “Innovation Union”, which aims to increase innovation activity of the EU economy by 2014 and envisages the creation of a single European Research Area report was named “Innovation Union Scoreboard”.

This study was carried out to identify the threats and opportunities in the sphere of innovations for certain regions and countries. Under the innovation in the economic sense, the European Commission’s experts understand the successful implementation of ideas in the market or improved product, process or service. Following this interpretation, the comparison of the innovation capacity of States regarded as a comparison of specific criteria for defining the innovative base of innovative activity (quantitative characteristics), innovative development (qualitative characteristics).

In 2009, the innovative development index is calculated on 29 indicators, however, in the report for the year 2010 their number was reduced to 25 indicators that better cover the development

of the national innovation system.. At the same time 19 indicators were collected were combined and developed 5 new from the previous report, 2 indicators.

The report (the IUS) state also differentiated by average annual growth in the innovative development of the five-year period (this is made corresponding matrix).

As we can see, these indices are complex hierarchical measuring systems. A comparison of these indices also shows that these indices are different set of blocks, the content and the number of variables, the algorithm information integration and scale of values of the indices, making it difficult to compare the results of measurement of innovation development of countries, particularly Kazakhstan. Let us consider in detail the index from INSEAD.

International Business School the INSEAD, Cornell University (Cornell University), and the World Intellectual Property Organization (World Intellectual Property Organization, WIPO) presented an analytical report «Global Innovation Index 2013» (Global Innovation Index 2013), in which Kazakhstan on the level of innovation has taken 84 place among the 142 countries of the world. It should be noted, despite the differences in the methods of calculating ratings, GIK WEF in 2013 Kazakhstan is also on the 84 place on the innovation potential [5].

This research holds INSEAD since 2007, and currently it is the most comprehensive set of indicators of innovation development in different countries of the world. In 2013, the study covers 142 countries, which together produce 98.7% of world GDP and are home to 94.9% of the global population. The Global Innovation Index is composed of 80 different variables that describe in detail the innovative development of countries at different levels of economic development. The study’s authors believe that the success of the economy is linked as with the presence of the innovation potential and the conditions for its implementation. Therefore, the index is calculated as a weighted sum of the scores of the two groups of indicators

- the resources and conditions for innovation:
- Achieved practical results of the innovation (InnovationOutput):

The final index is the weighted average cost ratio and the effect that makes it possible to objectively evaluate the effectiveness of efforts to promote innovation on a global scale. Also, given the index of efficiency of innovations, which is calculated as the ratio between the cost of innovation subindex and effect (results) innovation. This, the rating of the global innovation index (GII) INSEAD

represented by four major evaluations – the overall index, the two sub-indices and the index of the effectiveness of innovation.

The analysis shows that the top ten world leaders in the field of innovation has not changed compared to the previous year.

Table 3 – countries – participants rated INSEAD, the sample for 2013-2014

Country	Total score (0-100) / in the ranking		Total score (0-100) / in the ranking		Sub-index costs/ place		The effect of sub-index/ place		Sub-index costs/ place		The effect of sub-index/ place	
	2013		2014		2013		2014		2013		2014	
1	2	3	4	5	6	7	8	9	10	11	12	13
Switzerland	68.2	1	66.59	1	68.0	4	68.5	1	66.52	7	66.65	1
Sweden	64.8	2	61.36	2	68.8	3	60.7	2	67.86	5	54.86	3
Singapore	63.5	3	59.41	8	74.9	1	52.0	11	72.27	1	46.56	18
Finland	61.8	4	59.51	6	67.5	6	56.1	5	66.67	6	52.35	8
United Kingdom	61.2	5	61.25	3	68.0	5	54.5	6	68.50	4	54.30	4
Netherlands	60.5	6	61.14	4	62.9	15	58.2	3	64.18	10	58.09	2
Denmark	59.9	7	58.34	9	67.4	8	52.5	9	66.34	8	50.35	14
Hong Kong	58.7	8	59.43	7	72.0	2	45.5	25	70.65	2	48.21	15
Ireland	58.7	9	57.91	10	67.4	7	49.9	14	64.09	12	51.73	11
USA	57.7	10	60.35	5	66.3	9	49.1	16	69.19	3	51.42	12
Kazakhstan	31.9	84	32.73	84	41.4	67	22.4	105	49.72	69	24.73	10
Russia	37.9	51	37.2	62	42.0	60	33.8	49	43.77	52	30.62	72
Latvia	47.0	30	45.24	33	51.4	36	42.6	27	51.107	33	39.37	37

Source: compiled by the authors based on the report data INSEAD, 2014

In the ranking of countries in terms of innovation capabilities and results continue to lead Switzerland. It is followed by Sweden, the United Kingdom, the Netherlands, United States, Finland, Hong Kong, Singapore, Denmark and Ireland.

Indicators Sweden and Switzerland indicate that both countries occupy a leading position in all the criteria of the Index, consistently getting into the list of 25 countries with the best performance. United Kingdom demonstrates a well balanced performance in innovation (taking fourth place as a cost, and the results of innovative activities), despite the relatively low growth of labor productivity. The United States, which still enjoy preimuschestvami its powerful educational base (this applies in particular to the leading universities), significantly increased the cost of software development and employment in knowledge-intensive industries. The

last time the United States entered the top five in 2009, when they occupied the first place.

The countries with the best indicators of the level of innovation demonstrated remarkable stability, experts say. If you look at the top 25 countries in terms of innovation, the rankings show that some states are changing their place within their respective groups, but none of them did not leave the group. This can be explained, among other things, the fact that successful innovation leads to a kind of vicious circle: on reaching a certain critical level of investment attracted investment, talent attracts talent, innovations and generate innovation.

According to the study, there is a new dynamics of innovation in the world, despite the persistence of deep inequalities and sustainable in this area between the various countries and regions. The most significant innovation gap exists between

the countries are at different stages of economic development. On average, countries with high income per capita is much ahead of the country with lower income to all innovative options. There remains a profound inequality in the field of innovation between different geographical regions, especially if we compare the average high-income countries to that of countries in other regions of the world, such as Africa and many parts of Asia and Latin America. European countries continue to develop at different rates, leading innovation countries of Northern and Western Europe, they are catching up with Eastern European and Baltic countries, and smaller than those of the country of Southern Europe.

When comparing the overall performance of a global index of innovation and the level of GDP per capita, the report is divided into three groups of states:

The first group of «innovation leaders» includes countries with high income, such as Switzerland, the Scandinavian countries, Singapore, Britain, the Netherlands, Hong Kong, Ireland, the United States, Luxembourg, Canada, New Zealand, Germany, Malta, Israel, Estonia, Belgium, South Korea, France, Japan, Slovenia, Czech Republic and Hungary. These countries have successfully built an innovative ecosystem in which the investment in human capital thrive in fertile and stable innovation infrastructure, creating favorable conditions for increasing the level of knowledge, technology improvement and development of creativity.

The second group of “innovators, students” includes countries with an average level of income, such as Latvia, Malaysia, China, Montenegro, Serbia, Moldova, Jordan, Ukraine, India, Mongolia, Armenia, Georgia, Namibia, Viet Nam, Swaziland,

Paraguay, Ghana and the Senegal. Because of the low-income group includes Kenya and Zimbabwe. This group of countries with medium and low income show growth of innovative achievements by improving the institutional framework, training the workforce, improve the innovative infra-structure of deep integration with the global financial and other markets, and the development of the business community, even if progress in these dimensions are not It is uniform across all segments in the country.

The third group of “laggards” includes countries characterized by the weakness of their innovation systems. In this group of countries can be found both in high and middle-income countries.

This year Russia took the 62 place in the general rankings, between Jordan (61) and Mexico (63), losing just 11 positions. Among the BRIC countries, Russia ranks second after China (35th place), but if the trend continues, the other two countries in this group may soon get around to it in the ranking – Brazil already has 64 and India – 66th place.

Among the CIS countries Russia ranks third after Moldova (45) and Armenia (59). According to the report, the strengths of Russia related to the quality of human capital (33 place), business development (43), the development of knowledge (48), and infrastructure (49). Hinders the development of innovations imperfect institutions (87th place), low levels of development of the internal market (74) and the results of creative activity (101).

Which group includes Kazakhstan in this ranking? Despite the complexity of the calculations, Kazakhstan with an average level of income is surely among the second group of “students-innovators”, although the index of efficiency of innovations in 2013, we were on the 126-th place. (Table 4)

Table 4 – Changes in Kazakhstan’s rating indicators of the Global Innovation Index 2008-2014

Years	Place in the overall ranking	Points	Efficiency rating	Points
2008	61	2.45	-	-
2009/2010	72	2.85	-	-
2010/2011	63	3.05	77	-
2011/2012*	84	30.32	112	0.52
2012/2013	83	31.9	131	0.54
2013/2014	84	32.7	126	0.6
<i>*Note: from 2012 scores have changed because of the complexity of the index calculation methodology</i>				

Retrospective data on the index of INSEAD for the years 2008-2014 shows clearly improved balanced scorecard, but the ranking of the country has worsened – with 61 seats Kazakhstan dropped to 84th place [6]. In addition, Kazakhstan should strive to improve the efficiency index of innovation, as it shows the country in which innovative ideas are better translated into practical results. Thus, despite the fact that while a number of indicators, our country can not substantially move up in the global ranking, Kazakhstan still has every chance to enter into the world elite of technology in the next two decades. Formation of innovative activity will allow Kazakhstan to use a powerful intellectual potential to change the raw material orientation of the economy and accelerate socio-economic development in general.

Specifics of economic development of Kazakhstan's economy shows that the main directions of formation of competitive economy of the country should be:

- the development of infrastructure and economic regulation mechanisms;
- the formation of scientific-technical and innovative production capacity;
- creation of an effective management system;
- encourage the development of high-tech and service industries;
- the development and effective use of human potential.

Each area is characterized by a certain group of factors that influence the formation of competitiveness.

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