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The innovative activity of the enterprises: experience of Kazakhstan

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Кәсіпорындардың инновациялық қызметі: Қазақстан тәжірибесі

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Инновационная деятельность предприятий: опыт Казахстана

Kazakhstan has put a growing emphasis on the promotion of innovation as a driver of economic development and diversification. Kazakhstan has set up different institutions and developed many programs aimed at encouraging innovation and modernization. At the present stage of economic development, innovation and innovative activities are major factors which determine scales and effectiveness of business activity and ensure the competitiveness of enterprises. This article considers the increasing innovation activity of enterprises in Kazakhstan in the conditions of globalization, analyzed and identified obstacles of the innovative activity of enterprises, recommendations to encourage and increase the production of innovative activity of enterprises. Also identified strengths, weaknesses, opportunities, threats of innovative activity of enterprises.

**Key words:** innovation, innovative activity, innovative potential, globalization, state program.

Жаһандану жағдайында Қазақстан инновациялық даму жолын экономиканы әртараптандырудың және оны дамытудың бір бағыты ретінде таңдап отыр. Қазіргі кезеңде осы салада әртүрлі институттық құрылымдар өз қызметтерін жүзеге асырумен қатар, инновациялық даму мен модернизациялауды мақсат етіп қойған көптеген бағдарламалары қабылданған. Экономикалық дамудың қазіргі кезенінде инновация мен инновациялык кызмет кәсіпкерлік кызметтін жүзеге асырылуының тиімділігі мен ауқымын анықтайтын, кәсіпорынның бәсекеге қабілеттілігін қамтамасыз ететін негізгі факторлар болып саналады. Осыған сәйкес, мақалада жаһандану жағдайындағы Қазақстандағы кәсіпорындардың инновациялық белсенділігіне талдау жасалды және оған кедергі келтіруші факторлар анықталды, өндірістік кәсіпорындардың инновациялық белсенділігін арттыру мен ынталандыру жолдары жөнінде ұсыныстар беріледі. Кәсіпорынның инновациялық белсенділігінің артықшылық, кемшілік тұстары келтіріліп, қауіптері мен мүмкіндіктері анықталады.

**Түйін сөздер:** инновация, инновациялық қызмет, инновациялық потенциал, жаһандану, мемлекеттік бағдарлама.

В Казахстане уделяется все большее внимание на продвижение инноваций и выбран путь инновационного развития в качестве движущей силы экономического развития и диверсификации. В этих целях созданы различные институты и разработано множество программ, направленных на поощрение инноваций и модернизации. На современном этапе экономического развития инновации и инновационная деятельность являются основными факторами, определяющими масштабы и эффективность предпринимательской деятельности и обеспечения конкурентоспособности предприятий. В связи с этим в статье рассматриваются вопросы повышения инновационной активности предприятий Казахстана в условиях глобализации, проведен анализ и определены сдерживающие факторы инновационной деятельности предприятий, даны рекомендации по стимулированию и повышению инновационной активности производственных предприятий. Приведены преимущества, недостатки, возможности, угрозы инновационной активности предприятия.

**Ключевые слова:** инновация, инновационная деятельность, инновационный потенциал, глобализация, государственная программа.

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## THE INNOVATIVE ACTIVITY OF THE ENTERPRISES: EXPERIENCE OF KAZAKHSTAN

In the conditions of globalization the economy of Kazakhstan faces a number of objective problems, such as: a raw material orientation, weak inter-sectoral and inter-regional economic integration with the world economy, technical and technological backwardness of enterprises, low connection of science with production, low expenses for Research and Development, incompatibility of management to tasks of adaptation of economy to processes of a globalization and to transition to service and technological economy.

The government of the Republic of Kazakhstan worked out an intensive industrial and innovative development program for national economy's diversification, which is the only way to achieve economic stability within globalization of the world economy. The intensive industrial and economic development program is directed to modernization of national economy that will be transferred from extraction minerals to service technology. In addition, according to State program of industrial-innovative development 2015-2019, it is planned to reach the following results: innovation activity of enterprises 20%, innovation production in GDP 2,5% and Kazakhstan in the GIC WEF ranking -40 [1].

Using statistical data for last years, we can analyze the current state of innovative activity of Kazakhstan enterprises.

The Agency of Statistics of the Republic of Kazakhstan tells us that the innovational-active enterprises level reached 8.1% from the total number of enterprises. For comparison, this figure in countries of East Europe – is about 40%, in Russia – 13% (Romania – 28%, Slovenia of – 32%, Poland – 38%), in the countries of OECD – about 50%.

The level of innovative activity of enterprises in the Republic of Kazakhstan fluctuated among different regions. The maximum percentage were in Kostanay region – 14.5%, Kyzylorda – 11.7%, East Kazakhstan – 11.5% and Zhambyl and North Kazakhstan – 10.6%, whereas Mangystau region – 4.0%, West Kazakhstan – 4.1% and Pavlodar regions – 4.8% made minimum level [2]. It is undoubtedly that each regions of Kazakhstan has various level of innovative activity and the main reason for this is different level of concentration of such factors as scientific-research, financial, labor force, etc. Consequently, regions' innovative performance depends on regions' innovative potential.

Nevertheless, the share of innovation active enterprises in Kazakhstan has increased since 2008 by almost four times. Activities of the agency on provision of the state support created a positive tendency to growth of the main indicators of innovative activity. So, for example, in comparison with 2008, activity level in the field of an innovation in the republic increased from 4 up to 8,1% [2].

In addition, according to the JSC «National Agency for Technological Development», innovative products produced in Kazakhstan has increased their volume a more than four-fold – from 111 to 580 billion tenge, while it accounted for 1.50% of GDP against 0, 51% in 2008 [3].

In addition, Kazakhstan has strengthened his position on these indicators: «Foreign direct investment and technology transfer,» «Technological level», «The availability of new technologies», «The ability of companies to the development of modern technologies.» During the period of implementation of the state program of accelerated industrial-innovative development, «there was a reset of innovative system».

In general, the analysis showed positive trends for the period 2008-2015. However, if we compare the received results to indicators of developed countries of the world, then we have still not reached a sufficient level of innovation activity of enterprises and the efficiency of expenditure on technological innovation is still low.

Kazakhstan has reached some achievements in the process of innovational evolution. There have been opened funds and other infrastructure with the aim of developing innovations such as National Innovational Fund, Scientific Fund, Park of innovation technologies, Kazagroinnovation, Venture funds, local technological parks, offices of commercialization, international centers of transferring technology and others.

It should be noted that the advantageous side of innovation activity of enterprises in the Republic of Kazakhstan are:

- the presence of rich natural resources in the country;

- the well-developed network of universities, academic institutions and other research institutions;

active government policies and support in the field of innovation;

- operation of key elements of the innovation infrastructure.

It is possible to negative sides of innovational processes along with positive trend of innovational activity. It must be noted that the Kazakhstan enterprises in the field of innovation mainly chose «catch up» strategy, which testifies to their innovative immunity. «Catch-up» strategy involves imitation of foreign technology, copying products and their mass production. So, from all innovative products sold in Kazakhstan for 01.01.2015 on the amount of 580 386 million tenge, products, newly introduced or exposed to significant technological change was 88.9%, while the share of really radically new products is unknown.

The low capability of the enterprises to implement innovative activities is largely predetermined by the low level of a susceptibility of economy of the republic to innovations. At present, the demand is not focused on the use of advanced technologies, specific to the current level of scientific and technical progress. A feature of all post-Soviet systems of innovation is the high proportion of public sector research and development with a small number of large high-tech corporations and the relatively weak development of small innovative businesses [4].

There are notable reasons that decrease efficiency of innovational processes in Kazakhstan. According to analysis on institutional changes in Kazakhstan and Kazakhstan scientific researches, and researches of Statistical Agency, it is evident that following problems are defined to decrease efficiency of innovational activity in Kazakhstan:

– lack of funding the innovative activity by companies due to the high cost of implementation and development of innovations, as well as longterm investments. Enterprises do not have their own funds to finance the development, and the ability to attract funding from external sources is limited. Creditors not guarantee the return of loans and receipt of dividends, since innovation is exposed to more risks than investment activities;

- the absence of modern base of the industrial enterprises for the implementation of developments due to fatigue or lack of necessary equipment. Many industries are characterized by high resource intensity and energy intensity of production that is aggravated with the high level of depreciation of the production device.

- the phenomenon of resistance to innovations most of which often happens for two reasons. The first one is the lack of staff who is able to effectively manage the innovation process. The staff problem is felt at all levels of management, both the country and the enterprises. The second reason is the difficulties in marketing research of innovative products. The unstable economic situation in the country complicates reliable assessment of demand for innovative products even in a short-term outlook;

 innovation requires an appropriate organizational management structure in the enterprise. In Kazakhstan, the economic environment as a whole is a rather discouraging for innovation for another reason. It is characterized by low innovative activity of a private capital, orientation of the state to support small business in general, without taking into account its intinnovative potential. Table 1 shows SWOT-analysis conducted in Kazakhstan conditions, can help in the development of Kazakhstan's innovation strategy, more clearly represent the internal innovation resources, opportunities and potential threats in the field of innovation development.

Strong internal side (S)	Weak internal side (W)
<ul> <li>the presence of rich natural resources in the country;</li> <li>the well-developed network of universities, academic institutions and other research institutions;</li> <li>active government policies and support in the field of innovation;</li> <li>operation of key elements of the innovation infrastructure;</li> <li>strengthening of the business elite, which has no access to raw materials.</li> </ul>	<ul> <li>high level of the risk in case of a weak marketing, innovative risk-management;</li> <li>low level of the staff who is engaged in innovative activities;</li> <li>there is no effective system of transfer of technologies and new knowledge;</li> <li>undevelopment of small venture business;</li> <li>low innovative susceptibility of domestic producers;</li> <li>low competitiveness of domestic scientific developments and purchase of foreign obsolete technologies and equipment;</li> <li>limited financial and material resources.</li> </ul>
Favorable external opportunities (O)	External threats (T)
<ul> <li>the development of enterprises in the manufacturing sector with hi-tech;</li> <li>the creation of the system of knowledge generation, advanced technologies and non-standard solutions;</li> <li>the formation of «innovation zones» around universities;</li> <li>encouraging business of local entepreneurs and investment activities of foreign investors;</li> <li>the possibility to «cultivate» innovative start-up companies;</li> <li>increased interest and inflow of financial and managerial resources to high-tech industry.</li> </ul>	<ul> <li>«braking» of high-quality innovative development of the enterprises;</li> <li>inefficient organization of the innovation process and promotion of an innovative product on the market;</li> <li>«one-sided» activity of the Kazakhstan and foreign venture funds;</li> <li>«leakage» of new technologies, ideas abroad and transformation of the Kazakhstan developers into intellectual donors for foreign countries;</li> <li>aggravation of the problems of competitiveness of the Economy of the Republic of Kazakhstan in conditions of globalization.</li> </ul>

## $Table \ 1-SWOT\mbox{-}analysis$

Thus, the results of the analysis of the level of development of innovative activity in Kazakhstan helped to point out the following priority directions of increase of innovative activity of the enterprises:

- to determine scientific and technological priorities;

to form special organizational-economic development mechanism of innovative activities;

- to develop the forecast of technology development and establish a favorable economic and legal environment of the enterprise;

to improve instruments of stimulation of innovative development of the enterprise;

- to develop innovative infrastructure of the enterprise;

- to carry out scientific researches and developments;

- to improve the staff policy of the enterprise;

- to stimulate the partnership of science with production, etc.;

- to optimize the scheme of financing of scientific projects;

- to create and strengthen the corporate structures in the industrial and technological field promoting an innovative susceptibility of domestic entrepreneurs.

As mentioned above, the government should form a special organizational-economic development mechanism of innovative activity. It should be based on principles as:

 a strong system of tax benefits and incentives for all participants in innovative processes;

 complementary participation of the state and market in innovation processes; - the separation of innovative risk between government and business;

- use of decentralized channels of the state support of innovative activity;

- ensuring openness and transparency of the activities of the development institutions.

In addition, it is important to take into consideration small business that play an important role in innovative development. Foreign experience shows that small innovative business is a very dynamic, requires rather small investments. In developed countries, small enterprises provide about a half of all innovations. Cost per unit the quantity of innovations in small firms are 4 times higher, than in averages, and in 24 – than in large ones. Besides, small firms master twice more innovations than large corporations.

## References

1 The program of accelerated industrial-innovative development of Kazakhstan, 2015-2019 // http://www.mid.gov.kz/en/pages/information-national-program-industrialinnovation-development-republic-kazakhstan-2015-2019

- 2 Ministry of National Economy of the Republic of Kazakhstan Committee on Statics // http://stat.gov.kz
- 3 Sagadiyev, K. Chairman of the Board of Directors of JSC «ASTANA NATD» // IA News-Kazakhstan. July 3. 2013.
- 4 Turginbaeva, A. Problems and perspectives of innovation development of Kazakhstan. Almaty, 2010. P. 190.