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Innovative entrepreneurship in the Republic of Kazakhstan: the role of the state in a forming of the institutional conditions for the development of innovative activity of enterprises

In the article the participation of the state in the creation of institutional prerequisites that contribute to the development and revitalization of innovative business entities is considered. The definition of innovative entrepreneurship as a specific actor of innovative relations is given. Its internal characteristics are highlighted. We study the relationship of small, medium and large businesses to innovative processes. This is done on the basis of the proportion of innovatively active enterprises in Kazakhstan at the country level and in the regional context. The general and specific problems that hinder the innovation processes faced by enterprises of various sizes are described. It is noted that Kazakhstani businessmen to a greater extent demonstrate the imitative nature of production behavior, regardless of the scale of the enterprise, which carries out various types of innovation. It is also revealed that large companies are the most innovative in Kazakhstan, because they are largely provided with the necessary conditions for this. Several priority areas of state participation in terms of accelerating the development of innovation activities are highlighted. Proposals for improving public administration in the formation of institutional conditions for innovative entrepreneurship are made.

Keywords: state, public administration, innovative entrepreneurship, Republic of Kazakhstan, innovative activity, national innovation system.

The state as a subject of public relations and public administration are important components of the innovation system. From direct financing of education and R&D to the creation of various regulatory and legal conditions, they can have a significant impact on innovation activities. Obviously, full-fledged public administration, implemented through innovation policy, will be implemented in a wide range of «traditional policy areas», and will go far beyond a narrow understanding of innovation, including education, industry, taxation, ecology, finance, etc.

Targets of the modern innovative development of the Republic of Kazakhstan are determined taking into account the implementation of the main directions reflected in the annual Presidential Address to the people of Kazakhstan, the strategic document «Kazakhstan-2050», the State Program of Forced Industrial-Innovative Development for 2015-2019, the Strategic Development Plan of Kazakhstan until 2020 of the year, «The Concept of entering Kazakhstan among the 30 most developed countries in the world», etc.

Leading Kazakhstan scientists and their co-authors emphasize that many program-targeted initiatives have low performance due to the presence of serious problems, despite the active reform of Kazakhstan society [1]:

- The existence of administrative obstacles, in particular in the licensing system when creating a business for entrepreneurs;
- Inefficient system of organization of export-import operations in the presence of relative openness of market relations;
- Inefficient organization of the customs system;
- Lack of clear definition of performance targets in a significant part of state development programs;
- Inefficiency in the use of budget funds allocated for the implementation of state programs.

The state remains a decisive participant in innovation processes at this stage of development of all system elements of the national innovation system of Kazakhstan. However, the efforts of only states will not have a positive result if other participants of the innovation system will take passive positions. Therefore, it is necessary to emphasize the importance of other actors directly involved in innovative relations. It is also necessary to consider the conditions created for the development of innovative processes in Kazakhstan.

Innovative entrepreneurship is one of those. This is the part of the innovation system that most influences the effectiveness of measures taken to create and implement a country's scientific, technological and innovation policy. Representatives of innovative entrepreneurship are the main indicator of the susceptibility of society to innovation.

Various factors contribute to the formation of innovative entrepreneurship. These include: the type of socio-economic system of the state, the structure or level of scientific and technological development, the potential for human development, the openness of the country's economy, etc. Note also that countries with an identical type of socio-economic relations often have differences in the scientific and technological sphere and focus on different levels of research cycles in research and development (fundamental and / or applied). In this connection, the national specificity of innovative entrepreneurship is manifested in the contours of the overall national innovation model.

Although the models differ from each other by [2]:

- the role and extent of state presence in innovation;
- the participation of the private sector in innovatively active industries;
- the relative importance and place of large, medium and small businesses;
- the correlation between fundamental and applied research and development, etc.

While state authorities unite their efforts in solving various social problems, innovative entrepreneurship can play a key role in creating and expanding the labor market and new jobs. It can solve social and economic problems in general in Kazakhstan and its regions in particular.

According to the World Bank's approach to the essence of innovative entrepreneurship, it cannot be described only as: an enterprise introducing innovations, small and medium-sized businesses or young and fast-growing participants in modern economic relations. Innovative entrepreneurship is formed at the intersection of these three characteristics (Fig. 1):

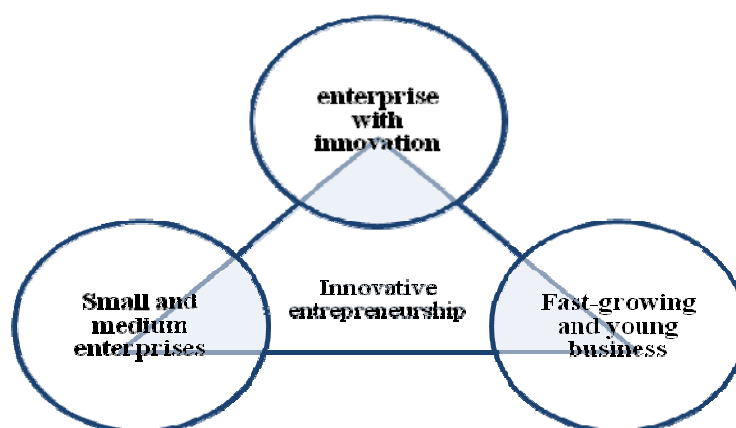
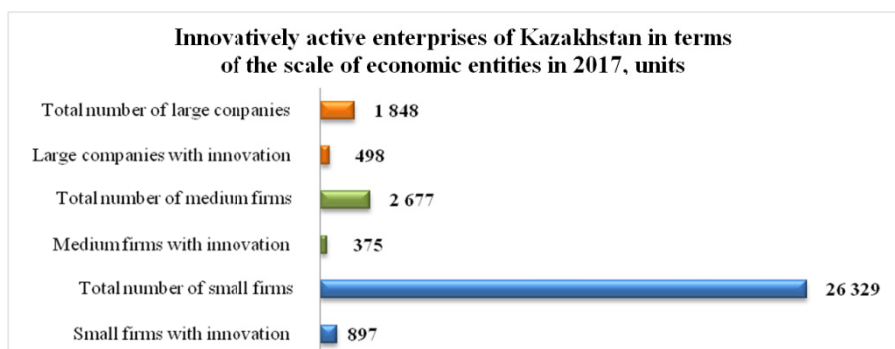


Figure 1. The content of the module «innovative entrepreneurship» according to the World Bank [3]

Quite often, the concept of «innovative entrepreneurship» is associated with small and medium-sized businesses. Although in our opinion, this is not entirely consistent with reality. In fact, economic entities of various sizes are interested in innovative entrepreneurship. This is evidenced by the data provided annually by the Committee on Statistics of the Republic of Kazakhstan. So, for example, in 2017, the innovation activity of Kazakhstani enterprises of different scales looked like that shown in Figure 2.

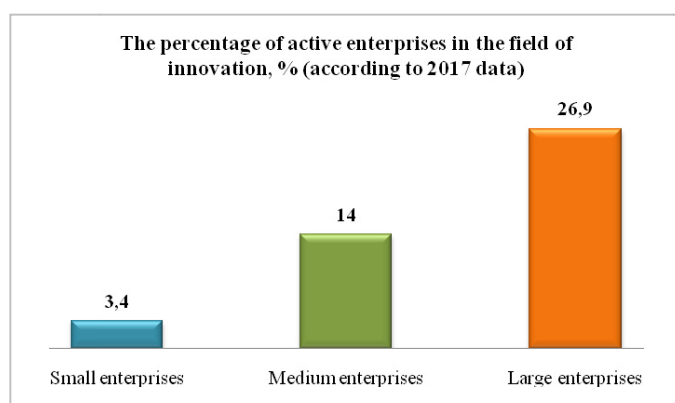
The figure shows that representatives of small businesses carried out various kinds of innovations in the volume (897 units), almost twice the figures of medium (375 units) and large (498 units) enterprises in 2017. Also, data show that large enterprises in terms of innovation were more active than medium ones. Thereby, the existing stereotype does not confirm that big business is the most disinterested in introducing innovations.



Note. Compiled according to the source [4].

Figure 2. Large, medium and small enterprises of Kazakhstan that have innovations in 2017

In addition, when analyzing the coefficient of innovation activity, determined by the ratio of subjects with innovations, and their total number (Fig. 3), it is Kazakhstan's large business that is the most innovatively active.



Note. Compiled according to the source [4].

Figure 3. The percentage of innovation activity of Kazakhstan enterprises depending on the scale of the economic entity in 2017

Figure 3 demonstrates that large enterprises are almost twice as fast in innovation activity of medium-sized businesses and almost eight times more active than small businesses. Indeed, large corporations have more opportunities and tools to innovate, providing the opposition, thus the competition.

Nevertheless, regardless of the scale of activity, the subjects of innovative entrepreneurship of the country make greater use of the imitative nature of production behavior. Enterprises in the country do not create radical innovative business conditions on their own. The practice of borrowing ready-made innovations and new technologies by the Kazakhstani business indicates this. According to Andreeva G.M., Kazakhstani enterprises are more prone to adapting ready-made technological solutions and absorbing innovations than to offering and using their own innovations [5; 33]. Therefore, the state occupies a leading position in the modern innovation system of Kazakhstan, and offers to all interested in the innovation processes structures, all its existing backup capabilities.

The overall success of innovation activity undoubtedly depends on the degree of interaction of state authorities, science, education, and innovative entrepreneurship in the regions. Taking into account the existing trends and fulfilling one of its main functions (managing regional innovation processes) the state should promote and ensure the formation of extensive innovative connections.

An analysis of the innovation activity of enterprises in Kazakhstan's regions, in general, demonstrates a situation similar to the general state of innovation in the country (Table).

Innovative activity of Kazakhstan enterprises in 2017 (in terms of regions and scale of business)

Region	Small enterprises			Medium enterprises			Large companies		
	Number of units	Innovative enterprises	Percentage of innovation activity, %	Number of units	Innovative enterprises	Percentage of innovation activity, %	Number of units	Innovative enterprises	Percentage of innovation activity, %
Akmola	1 054	36	3,4	155	13	8,4	90	23	25,6
Aktobe	911	26	2,9	130	25	19,2	108	36	33,3
Almaty	1 550	47	3,0	156	16	10,3	91	27	29,7
Atyrau	952	22	2,3	97	12	12,4	96	22	22,9
West Kazakhstan	757	2	0,3	93	7	7,5	82	5	6,1
Zhambyl	702	29	4,1	73	14	19,2	71	16	22,5
Karaganda	1 896	74	3,9	236	35	14,8	177	39	22,0
Kostanay	1 181	52	4,4	189	25	13,2	105	30	28,6
Kyzylorda	619	21	3,4	91	11	12,1	74	14	18,9
Mangistau	952	8	0,8	112	11	9,8	67	9	13,4
South Kazakhstan	2 143	77	3,6	193	32	16,6	163	40	24,5
Pavlodar	1 057	35	3,3	133	12	9,0	102	32	31,4
North Kazakhstan	816	37	4,5	150	30	20,0	57	27	47,4
East Kazakhstan	1 655	79	4,8	217	32	14,7	138	55	39,9
Astana city	3 668	171	4,7	227	38	16,7	144	42	29,2
Almaty city	6 416	181	2,8	425	62	14,6	283	81	28,6
The Republic of Kazakhstan	26 329	897	3,4	2 677	375	14,0	1 848	498	26,9

Note. Source [4].

Most of the large companies of Kazakhstan are organizationally represented by transnational and national corporations, for which innovation activity is a constant and necessary condition for functioning. In addition, large enterprises more often become executors of state orders, which are accompanied by the allocation of state funds. The high cost of innovation is one of the main reasons for innovation passivity for small and medium enterprises, regarding their ability to invest in innovations.

Issues of state management and regulation are closely related to the pace and scale of the growth of innovative entrepreneurship. The historical and economic experience of innovatively developed countries shows that states that try to abandon the management of innovation processes lose the growth prospects of the entire system. The national innovation systems of the overwhelming majority of developing and developed countries indicate that the state is very actively involved in the activities of innovative entrepreneurship. Therefore, the crux of the matter is not whether or not to support, regulate or not regulate innovative entrepreneurship, as part of the innovation system. The essence is what kind of support to provide and what effective regulatory tools to choose [6].

The dynamics of the development of innovative entrepreneurship in Kazakhstan, as well as in other countries, is determined by the state innovation policy using a variety of tools. It should include regulatory support of innovation, forms of direct and indirect state regulation, the impact on the state of the potential of scientific, technological and industrial complexes, the creation of conditions for the domestic market, as well as the traditionally-specific features of the country.

We agree with the opinion of A.N. Toxanova and her co-authors, that in order to accelerate innovation development, in which the state is directly involved, several priority ways can be distinguished [7; 27, 28]. There are:

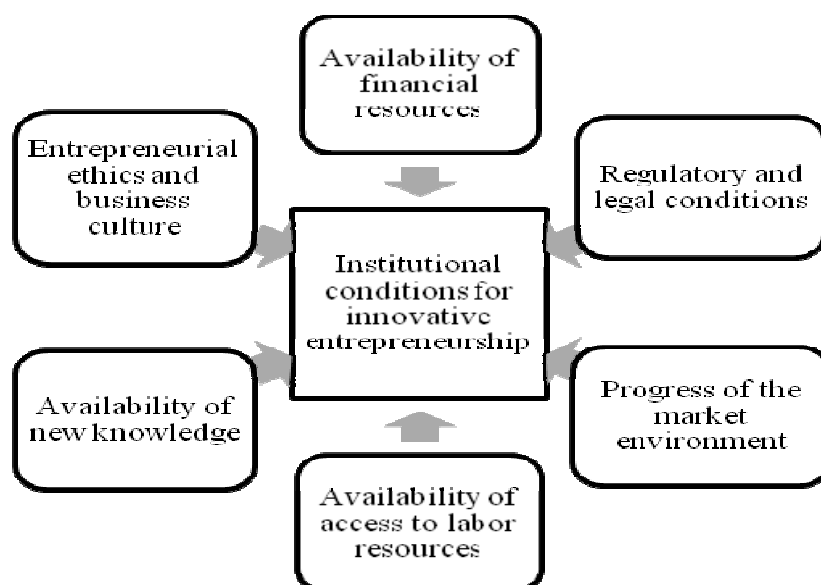
1. Creation of special measures that increase innovation activity: financial support and maintenance of innovative projects, improvement of fiscal policy measures for innovative entrepreneurship of various sizes (tax preferences, etc.).

2. Improving the innovation infrastructure: developing research structures and their interrelations, increasing the quality of innovative intellectual resources through modernizing educational programs of universities, creating regional consortia for interaction between scientific organizations, entrepreneurs and development institutions of the regions.

3. Modernization of the state order system, which is able to stimulate the demand for innovation in the promising sectors of each region.

The state should in every way help to create a favorable institutional environment and exert its managerial influence on the national innovation system. It should work through it on its elements, one of which is innovative entrepreneurship.

Accordingly, it is necessary to take into account the possibility of improving the following aspects of public administration and state innovation policy that are relevant for innovative entrepreneurship (Fig. 4):



Note. Based on data from the source [3].

Figure 4. Institutional conditions for the development of innovative entrepreneurship in Kazakhstan

1. Increasing the availability of financial resources. Access to financial resources is a major factor in the creation and growth of innovative entrepreneurship and includes a credit facility, venture capital, funds of «business angels». It allows enterprises to invest in investment-costly innovative projects, funding is not only by their own expense.

2. Improving regulatory and legal conditions for innovative entrepreneurship. In particular, this refers to the normative and legal acts that regulate the early stages of the development of new businesses, such as those associated with administrative matters, tax conditions and bankruptcy procedures.

3. Impact on the sphere of market relations (progress of the market environment). State influence on innovative entrepreneurship contains several aspects through market relations. These include increasing the availability of domestic and foreign markets, the development of a competitive environment, the implementation of public procurement, as measures to stimulate industries with high local content.

4. Facilitate access to labor resources. This condition is connected with the behavior of the subjects of innovative entrepreneurship in the labor market and their desire to acquire highly qualified personnel. It forms stable labor relations about hiring and firing workers, about migration processes and interest in increasing the potential of human capital.

5. Availability of new knowledge. This aspect is extremely important for innovative entrepreneurship, as it represents the main source of new opportunities in the innovation sphere. Access to knowledge reserves encompasses public and private academic relations that fuel the activities of innovative entrepreneurs. They relate to inter-firm scientific and technological cooperation, interaction between universities and industrial

enterprises, investments in research and development, and other forms of investment in innovation processes. In addition, such links allow the progressive development of intellectual property relations and increase the penetration of information and communication technologies in the business environment.

6. Entrepreneurial ethics and business culture. The capabilities of entrepreneurs play a crucial role in entering the market and predetermine the success of new enterprises, since they contribute to the emergence of innovative approaches to the functioning of new industries, the introduction of innovations, as well as training and adaptation to changing circumstances. The state should take into account the need to develop a socio-cultural infrastructure, the elements of which are business support infrastructure, experience and skills of businessmen and entrepreneurs. A special attitude towards entrepreneurship is also being formed. Culture can also have an impact on innovative entrepreneurship, influencing the inclination and desire of people to engage in entrepreneurial activity.

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Е.А. Ставбуник, А.С. Нурмаганбетов

Қазақстан Республикасындағы инновациялық кәсіпкерлік: инновациялық белсенді кәсіпорындарды дамыту үшін институционалды шарттарды қалыптастырудағы мемлекеттің рөлі

Мақалада инновациялық кәсіпкерлік субъектілерінің іс-әрекетін дамыту және белсендендіруге ықпал ететін институционалды алғышарттарды қалыптастыруға мемлекеттің қатысуы қарастырылды. Инновациялық қатынастардың ерекше акторы ретіндегі инновациялық кәсіпкерлікке анықтама берілген. Оның ішкі сипаттамалары анықталған. Ел және өңірлік деңгейдегі Қазақстанның инновациялық белсенді кәсіпорындарының үлес салмағы негізінде инновациялық процестерге шағын, орта және ірі бизнестің қатынасы зерттелді. Түрлі ауқымдағы кәсіпорындар тап болатын, инновациялық процестерді бәсеңдететін жалпы және ерекше мәселелер сипатталады. Өртүрлі инновацияларды іске асыратын кәсіпорын ауқымынан тәуелсіз түрде қазақстандық кәсіпорындардың өндірістік іс-әрекетінің инновациялық сипатын білдіретіні көрсетілген. Сонымен қатар Қазақстанда қажетті шарттарға ие ірі компаниялар жоғары инновациялық белсенділікті көрсететіні анықталған. Инновациялық іс-әрекеттің дамуын жылдамдатуға қатысты мемлекеттік қатысудың бірнеше басымды бағыттары бөлініп қарастырылған. Инновациялық кәсіпкерлік үшін институционалды жағдайды қалыптастыру барысында мемлекеттік басқаруды жетілдіру бойынша ұсыныстар жасалған.

Кілт сөздер: мемлекеттік басқару, инновациялық кәсіпкерлік, Қазақстан Республикасы, инновациялық қызмет, ұлттық инновациялық жүйе.

Е.А. Ставбунник, А.С. Нурмаганбетов

Инновационное предпринимательство в Республике Казахстан: роль государства в формировании институциональных условий для развития инновационно активных предприятий

В статье рассмотрено участие государства в создании институциональных предпосылок, способствующих развитию и активизации деятельности субъектов инновационного предпринимательства. Дано определение инновационного предпринимательства как специфического актора инновационных отношений. Выделены его внутренние характеристики. Исследовано отношение малого, среднего и крупного бизнеса к инновационным процессам на основе удельного веса инновационно активных предприятий Казахстана на уровне страны и в региональном разрезе. Описаны общие и особые проблемы, с которыми сталкиваются предприятия разного масштаба, тормозящие инновационные процессы. Отмечено, что, независимо от масштаба предприятия, осуществляющего различного вида инновации, казахстанские предприниматели в большей степени демонстрируют имитационный характер производственного поведения. Также выявлено, что наибольшую инновационную активность в Казахстане проявляют крупные компании, обеспеченные в большей степени необходимыми для этого условиями. В плане ускорения развития инновационной деятельности выделено несколько приоритетных направлений государственного участия. Сделаны предложения по совершенствованию государственного управления при формировании институциональных условий для инновационного предпринимательства.

Ключевые слова: государство, государственное управление, инновационное предпринимательство, Республика Казахстан, инновационная активность, национальная инновационная система.

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