LOOK	IEJME — MATHEMATICS EDUCATION
ACADEMIC PUBLISHERS	2016, VOL. 11, NO. 5, 1033-1049
OPEN ACCESS	Article number: mathedu.2016.093

Government Support of Innovative Business in the Republic of Kazakhstan

Sarsengali A. Abdymanapov^a, Aigul N. Toxanova^a, Alma H. Galiyeva^a, Aigul A. Muhamedzhanova^a, Zhanar S. Ashikbayeva^a and Ainur S. Baidalinova^a

^aKazakh University of Economy, Finance and International Trade, Astana, KAZAKHSTAN.

ABSTRACT

The article discusses development of innovative entrepreneurship in the Republic of Kazakhstan, reveals innovative business development problems, and shows experience in government support of innovative business. The authors made practical recommendations on developing mechanisms for government support of innovative entrepreneurship and conducted a survey of businesses to identify the role of government support in the development of innovative entrepreneurship. The object of the research is to analyze the modern approaches to the establishment of government support mechanisms of innovative entrepreneurship. The methodology of this study is based on the systems approach, such as methods of scientific cognition as comparative analysis, generalization, deduction, systematization, surveys, polls, interviews, statistical data processing and case studies. The results of this research is justification of multi-level approach to government support of innovative entrepreneurship and differentiation of the government support of innovative entrepreneurship according to the level of development and stage of the economic cycle. In conclusion, it was emphasized that, in times of crisis, it is necessary to give preference to indirect methods of support (tax breaks, preferential loans, government support for financial leasing, franchising and support for small and medium enterprises engaged in manufacturing and distribution of innovation).

> KEYWORDS Innovative entrepreneurship / business; government support of innovative business; innovation-active enterprises; multi-level approach; grant funding

ARTICLE HISTORY Received 17 April 2006 Revised 19 July 2016 Accepted 21 July 2016

Introduction

The establishment of innovative entrepreneurship as a special sector of economy is one of the most important directions of transformation of Kazakhstan's economy at the present stage. Without innovative entrepreneurship, it is impossible to create an effective economy and form a wide and steady middle class that defines the stability of modern society.

CORRESPONDENCE Aigul N. Toxanova 🖂 taigul@mail.ru

© 2016 Abdymanapov et al. Open Access terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/) apply. The license permits unrestricted use, distribution, and reproduction in any medium, on the condition that users give exact credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if they made any changes.

In the priority directions of the social development, economic growth takes the central place and is based on an open market economy and the real competition with the high level of foreign investment and internal savings.

At the new stage of the development, Kazakhstan is resolving a wide range of issues related to improving the competitiveness of the national economy, including economic restructuring, development of infrastructure and market institutions, as well as overcoming the disadvantages inherited from the previous stage: imperfection of industrial and technological structure, weak internal integration, and lack of viability of productive forces (Bayzholova & Tankimov, 2015).

All these estimates are valid in relation to the development of innovative entrepreneurship. The socio-economic role of the sector is high in countries with established market economies and in those that have only recently gone this way.

Foreign experience of economic and social development (Stone et. al., 2008; Arundel, 2007; Innovation for Growth, 2013; "The Global Competitiveness Report (2013–2014)", 2014; "European Innovation Scoreboard", 2013) confirms that innovative entrepreneurship can become a real factor not only in terms of stabilization, but also in terms of growth of Kazakh economy. Innovative entrepreneurship contributes to maintaining a proper level of competition, flexible restructuring of the manufacturing process, acceleration of innovation processes, establishment of a social orientation of market relations and employment growth ("Research and Innovation Report", 2014; "Research and Innovation performance in the EU", 2014). In this regard, the scientific analysis of economic problems of innovative entrepreneurship in Kazakhstan gains the special importance in the conditions of reforming economy, which is primarily characterized by the need for stabilization of production processes and assurance in the long term sustainable economic development of Kazakhstan.

The contribution of this paper to the world science are the following.

- This article attempts a tiered approach to government support of innovative entrepreneurship on the government, region and enterprise level. Unfortunately, today these measures are often not interconnected, which leads to duplication of effort and uncoordinated actions. This is why it is necessary to have a specific allocation of system-wide measures on the government level, measures within the competence of the regions, and own independent measures of businesses in the field of innovation.

- The authors are rather focus on indirect, than on direct support measures to create a promising entrepreneurial climate and favorable conditions for private investors. Spot support of innovative entrepreneurship provides a shortterm result, while systemic and consistent support is important for an opportune environment.

- There are many different classifications of measures to support innovative entrepreneurship. The proposed classification reflects the current stage of development of the transitional economy of the Republic of Kazakhstan, where measures specific to the transitioning period coexist with the traditional measures, including those in the field of international support.

Literature Review

The definition of innovative business as innovation was given by Y. Schumpeter, (1982), who revealed new approaches in business development. Innovative functions as the main signs of entrepreneurship are reflected in works of different scientists (Drukker, 1985; Santo, 1990). The different issues of enterprises, in particular, the forms of managing in the innovative sphere were considered as a problem from the standpoint of government regulation; thus, recognizing the high importance of this sector for the government in the process of increasing the competitiveness of the country upon transitioning to the innovative type of development (Busygin, 2000; Blinov, 1997; Utkin, Morozova & Morozova, 1996).

Questions of entrepreneurship are also considered in the works of Kazakhstan authors (Mamyrov, 2007; Toksanova, 2007; Dauranov, 2002; Okayev, 2000; Kantarbayeva, 2008; Zhatkanbayeva, 2009; Sydykov & Shaynurov, 2008; Toksanova, Galiyeva & Galinova, 2015; Aliev, 2015). Kazakhstan has also developed the necessary legal and regulatory framework that reflects an innovative way of development of our government ("Law of the Republic of Kazakhstan "On government support of industrial innovation"", 2012; "Law of the Republic of Kazakhstan "On Science"", 2011; "Law of the Republic of Kazakhstan "On Subsoil and Subsoil Use"", 2013; "The Government program of forced industrial innovative development of the Republic of Kazakhstan:, 2010; "The Interindustry plan of scientific and technological development of the country up to 2020", 2010; "The Program of development of innovation and assistance to technological modernization in the Republic of Kazakhstan for 2010 - 2014 years", 2010; "The program "Performance 2020"", 2011). Nevertheless, the main emphasis in these studies is put on general support of businesses, while there is not enough research made on support of innovative entrepreneurship. In this regard, this research is devoted to questions of government support of innovative entrepreneurship.

Materials and Methods

Methodological basis of this research includes various approaches and methods widely used in modern science. The empirical data was obtained through collecting sociological information by the means of polls (questioning or interviewing), observations and documents, which allowed to draw accurate conclusions, find regularities and tendencies, as well as check the hypotheses made in the course of the research. The obtained sociological information was then generalized, analyzed and scientifically integrated. To accomplish that, we grouped all collected questionnaires, polls, cards of observation and forms of interview into groups of the studied questions to create tables, schedules, charts, drawings, etc.

The analysis of the received information allowed us to form stages of empirical sociological research and discover primary data interrelations of the studied variables based on logical-informative procedures and statistical methods: amounts of financing of the innovative enterprises, quantity of innovative production, number of innovation-active enterprises, volume of government support.

For the methodological basis of the research, we used methods of analysis and synthesis. The analysis then allowed to spread out a problem of government support of innovative business into the following components: financial support, legal support, human resources provision, information support and others.

Conducted survey and data collected from enterprises allowed to generalize and synthesize data into a unified whole. In this study, we used the method of analogy, according to which we studied the international experience of government support of innovative entrepreneurship and developed new mechanisms of government support of innovative entrepreneurship in the Republic of Kazakhstan, taking into account national specificities.

Thus, application of these methods allowed to develop modern approaches to the establishment of mechanisms of government support of innovative entrepreneurship. Also, the use of these techniques has allowed to estimate efficiency of the proposed practical recommendations of government support of innovative entrepreneurship.

Results

To date, problems of optimization of government impact on the sector of innovative entrepreneurship, lack of a complete control system of entrepreneurship at the level of government and its regions and of specific enterprises receive special relevance. The government needs research devoted to theoretical aspects of innovative business, definition of small and medium innovative business, and study of practical questions of creation and effective functioning of innovative companies (Panzabekova & Ruzanov, 2013; Shimshikov, 2013).

Share of innovative businesses in Kazakhstan is still low: the number of innovation-active enterprises for year 2014 is 1,940, increase by 166 from year 2013. Activity level in the field of innovations in the recent years practically hasn't changed and is about 8% (Figure 1) (Gribovskiy & Ushakova, 2014).



Figure 1. Level of innovative activity in the Republic of Kazakhstan

As data on Figure 1 testifies, the volume of innovative production is 3 billion USD, which is 0.4% more than in 2013. The volume of innovative production exported is 959 million USD.

However, innovative activity has not yet become the basis of social and economic development of the country: in domestic economy there were neither essential technological breakroughs, nor signs of intensive mass development of research and development. Low innovation activity is typical for all types of economic activity, as well as all types of innovations.

The main problem is low demand for innovation in the economy of Kazakhstan, as well as its inefficient structure – excess overweight towards purchase of ready equipment to the prejudice of own new development (Table 1).

Table 1. Indicators of innovation activity of product and process innovations by economic activity

Type of economic activity	Number of	Out of them	
	enterprises,	having	activity level
	units	innovation,	in the field of
		units	innovations,
			in %
Total	24 068	1 303	5,4
Rural, forest and fishery	1 812	139	7,7
Mining industry and development of pits	635	40	6,3
Manufacturing industry	3 588	391	10,9
Power supply, supply of gas, steam and air conditioning	414	25	6,0
Collecting, processing and distribution of water	225	5	2,2
Sewerage system	20	-	-
Collecting, processing and waste disposal;	206	1	10
recycling	200	4	1,7
Recultivation and other services in the field of	17	_	_
waste disposal	17		
Construction	4 662	54	1,2
Wholesale and retail trade; car repairs and	6 071	133	2.2
motorcycles	0 07 1	155	2,2
Transport and warehousing	1 895	39	2,1
Information and communication	958	85	8,8
Financial and insurance activity	4	-	-
Activity in the field of architecture, engineering	1 349	38	2.8
researches, technical tests and analysis	1 547	50	2,0
Scientific research and development	225	94	41,6
Advertising activity and studying of market	277	12	44
conditions	2//	12	1, 1
Higher education	141	65	46,1
Activity in the field of healthcare	1 569	179	11,4

Following the results of year 2014, a statistical observation of innovative activity of 24,068 Kazakhstan enterprises was conducted. Innovative activity of the enterprises was 8.1% for product, process, organizational and marketing innovations and 5.4% for product and process innovations. The highest activity in the field of innovation on all types of innovations was observed among the large enterprises and was 25.5% (out of 1,913 reported large enterprises, 487 carried out innovative activity).

For the analyzed period, costs of product and process innovation increased by 0.6% in comparison with the previous year and were 2,349 million USD (in 2013 - 2,335 million USD). Thus, costs of product and process innovations from own means were 1,384 million USD, which is 58.9% of the general costs of realization of innovative activity. According to the conducted study, the greatest number of the enterprises with product, process, organizational and marketing innovation was in Almaty (11.3%), Astana (11.0%), Kostanay oblast (10.5%) and Karaganda oblast (8.2%).

In the changing dynamics of indicators of innovation activity of the enterprises, the positive tendency of growth within the country is traced in recent years, with acceptance of the Government program of the forced industrial and innovative development that testifies increase of the level of a susceptibility of the enterprises to innovations (Gribovskiy & Ushakova, 2014). So, according to RK Statistics Agency, the number of enterprises that introduced goods or services by districts was 478 units, services – 183 units, Astana and Almaty were leading (Table 2).

Name of the		Product			Services	
region	new or	exposed to	other	new or	exposed to	other
	advanced	improvement	innovative	advanced	improvement	innovative
Republic of	478	116	74	183	58	52
Kazakhstan	470	110	74	105	50	52
Akmola	28	-	6	-	-	-
Aktobe	15	-	-	4	-	-
Almaty	46	6	7	5	8	1
Atyrau	17	3	1	5	-	-
West-Kazakhstan	11	5	-	3	2	-
Zhambyl	21	5	2	11	-	2
Karaganda	26	9	3	8	3	3
Kostanay	35	3	-	13	-	-
Kyzylorda	12	3	2	4	-	-
Mangistau	6	-	-	6	1	3
South-Kazakhstan	57	15	3	20	3	1
Pavlodar	20	2	1	8	2	3
North-Kazakhstan	37	4	-	8	-	-
East-Kazakhstan	28	7	5	10	4	4
Astana city	57	41	36	54	17	27
Almaty city	62	13	6	24	18	8

Table 2. Number of enterprises that introduced goods or services by districts

The main reasons for not carrying out innovative activity in enterprises include: lack of financial resources; lack of funding from external sources of financing; high costs of innovation; shortage of competent staff; absence of information on technologies (Table 3) (Gribovskiy & Ushakova, 2014).

Table 3 shows that the most important reason for resisting innovative activity and terminating introduction of innovation is the lack of financial means -9,345 units, with Almaty, Karaganda and Akmola being the leading districts.

Regarding the resistance to the innovative activity, respondents point to lack of demand for innovations, as well as the uncertainty of demand for innovative goods or services (Table 4) (Gribovskiy & Ushakova, 2014).

Table 5. Reasons for resisting innovation in enterprises by districts					
Name of the	Lack of	Lack of funding	High costs of	Shortage of	Absence of
region	financial	from external	innovation	competent	information
	recourses	sources of		staff	on
		financing			technologies
Republic of	0.245	776	000	676	272
Kazakhstan	9 343	//0	003	020	275
Akmola	462	7	62	30	11
Aktobe	455	4	29	22	29
Almaty	517	31	79	8	7
Atyrau	230	67	8	21	58
West-Kazakhstan	270	14	109	12	5
Zhambyl	282	26	41	25	16
Karaganda	783	17	111	22	2
Kostanay	428	21	55	37	11
Kyzylorda	194	7	14	187	-
Mangystau	88	6	11	5	3
South-Kazakhstan	776	10	45	14	43
Pavlodar	467	14	46	32	2
North-Kazakhstan	362	13	38	8	15
East-Kazakhstan	559	45	93	30	13
Astana city	372	31	57	40	13
Almaty city	3 100	463	85	133	45

Table 3. Reasons for resisting innovation in enterprises by districts

Table 4. Reasons that influence the resistance to the innovative activity of enterprises

Name of the	Absence	Complexit	Domination	Uncertainty	There is no	There is no
region	of	y in	of the	of demand	need owing	need due to
	informatio	search of	existing	for	to earlier	the lack of
	n in the	partners	enterprises in	innovative	innovations	demand for
	market	for	the market	goods or		innovations
		innovation		services		
1	2	3	4	5	6	7
Republic of	160	245	180	1 094	1 675	8 198
Kazakhstan	100	243	100	1074	1075	0170
Akmola	13	16	8	30	90	365
Aktobe	1	11	14	50	126	296
Almaty	25	13	4	89	84	391
Atyrau	14	6	13	56	77	446
West-Kazakhstan	5	6	-	50	46	168
Zhambyl	8	14	14	32	11	206
Karaganda	6	13	15	128	132	535
Kostanay	2	8	3	53	102	552
Kyzylorda	1	8	7	21	1	205
Mangystau	5	4	3	35	16	747
South-Kazakhstan	8	32	7	94	149	819
Pavlodar	3	11	9	65	72	355
North-Kazakhstan	-	5	7	38	48	270
East-Kazakhstan	9	18	16	117	97	829
Astana city	52	23	17	113	483	1 050
Almaty city	8	57	43	123	141	964

In order to study the problems of operation and development of innovative entrepreneurship in the regions, as well as evaluate the effectiveness of

government support, a survey of owners and managers of small and mediumsized enterprises (300 enterprises) was conducted. The survey revealed the role of government support in the development of innovative entrepreneurship and allowed to conduct analysis of a sociological survey of entrepreneurs operating in the field of small and medium business.

The survey was conducted through interviewing directors and owners of small and medium-sized enterprises, as well as heads of public associations of businessmen and infrastructure objects that support small and medium businesses in the area (Panzabekova & Ruzanov, 2013; Shimshikov, 2013).

The survey involved more than 65% of the respondents, who represented companies employing less than 50 people, 19% - with employees from 50-250 people, 16% - with employees with more than 250 people. The majority of respondents work in the field of agriculture, service sector and other sectors of the economy.

Regarding the question on whether they received grants from the National Agency on technological development: 78% of the respondents heard about this financing; 20% of the respondents plan to address the National Agency in the future; 2% of the respondents tried to receive these grants, but with no results (Figure 2).



Figure 2. Awareness of National Agency grants on technological development by respondents

Among obstacles in the way of innovative development, respondents noted the following: financial barriers – 29%; low competitiveness of domestic production and services – 21%; technological barriers – 19%; human resources barriers – 15%; legal barriers - 9%; administrative barriers – 7% (Figure 3).

IEJME - MATHEMATICS EDUCATION

00 1041





As for their opinion on what government measures should stimulate innovative entrepreneurship, the respondents answered as follows: ensuring tax benefits for companies involved in R&D and development of new products - 54%; availability of funding to implement innovative projects - 21%; insurance of risks at introduction stages of innovation -11%; human resources provision for innovation development - 9%; found it difficult to answer -5%.

Thus, it is possible to draw a conclusion that according to the results of the questionnaire, the main factors constraining development of innovative activity of businesses include:

- insufficient financing of innovative production;
- imperfect system of taxation for the development of innovative entrepreneurship, lack of investors;
- low competitiveness of domestic production and services;
- high level of competition from foreign analogues;
- low degree of legal security of businessmen, absence or insufficient protection from industry associations;
- large number and duplication of documents for licensing;
- imperfect system of management of technology transfer;
- unclear strategy development and promotion of innovative products.

Having analyzed the data, we can note the following negative tendencies of innovative activity development that influence innovative development in RK:

1. Reduced share of innovative production in GDP

2. Low rates of increase of the share of the innovative active enterprises in total number of the enterprises, which causes the high level of passivity in the field of innovation

3. Reduction in volume of the rendered scientific and technical services from innovation-active enterprises.

4. Insufficient number of research and project design divisions in enterprises and their payroll number of workers. So, for example, in 2006-2014 the number of research and project design divisions was no more than 800 units, the number of employees was about 11-12,000 people, and there were only 8 regional science and technology parks with 4 design offices, which isn't enough for Kazakhstan.

5. Big differences in expenses of the enterprises on technological innovations causing uneven development of innovative activities in the regions of the Republic. So, in spite of the fact that, since 2009, share of the innovation-active enterprises increased from 4% to 8%, expenses of the enterprises on technological innovations increased by 7 times and the volume of innovative production increased from 0,5 to 3,2 billion USD. However, in regions such as North-Kazakhstan, Mangistau and Kostanay, there are practically no expenses on technological innovation. The same situation is noted in a number of advanced industrial regions, where enterprises do not sufficiently allocate funds for technological innovation.

SWOT analysis of innovative development of the Republic of Kazakhstan is demonstrated in Table 5.

Table 5. SWOT analysis of innovative development of the Republic of Kazakhstan

Strengths	Opportunities
Macroeconomic and political stability	International cooperation in the field of
Full government support (financial, political,	innovation
legislative, etc.)	Participation of foreign investors and
Availability of strong scientific and	partners in innovation projects of
technological potential	Kazakhstan
Availability of highly qualified national human	Participation of Kazakh investors in
resources	international innovation projects
Availability of necessary natural resources	Transfer of advanced technologies
Positive dynamics of innovation indices	_
Weaknesses	Threats
Relatively low level of innovative activity of	Crisis of innovative economy
domestic enterprises	Global economic crisis
Regional and sectorial disproportion of	Slowdown in the global Scientific Technical
innovative development	Progress
Low share of private investment in innovation	-

Source: National Innovation Fund of Kazakhstan (currently NATD).

Multi-level approach to government support of innovative entrepreneurship

Today, Kazakhstan has a multi-level system of support of innovative entrepreneurship on government, region and enterprise levels.

Government level, which involves the development of priorities for policy coordination of innovative development of SMEs, is represented by two ministries: Ministry of National Economy responsible for coordination of policies to support entrepreneurship and Ministry of Investment and Development of the Republic of Kazakhstan responsible for the development of innovative entrepreneurship. The regional level is represented by the local executive bodies, such as Akim's administration of the regions and cities of Almaty and Astana, and its established Departments of Business and Industry.

The final link in the chain of implementation of the government policy in the field of entrepreneurship are enterprises themselves that are interested in innovation.

In addition to the problems of formation and realization of government policy in the field of entrepreneurship, the government uses its capital to implement functions to provide financial, informational, analytical and logistical support of entrepreneurship through such organizations, as:

1. "National Agency for Technological Development" JSC (NATD) provides financial support for innovative business initiatives by attracting investment and financing projects. Recently, it financed 18 projects of industrial construction offices in the amount of 205.6 mln. tenge; allocated 227 innovation grants worth 10 bn. tenge; rendered 116 services in technology business incubation in the amount of 970 mln. tenge; supported 41 projects through innovative contests; provided 122 projects with services for justification of the concept in the amount of 195.6 mln. tenge. In 2014, government budget allocated JSC "NATD" 245 mln. for the services rendered by technological parks in technological business incubation projects. Currently, the country registers more than 50 business incubators and innovation centers, Kazakhstan Association of Business Incubators and Innovation Centers (KABIC), which brings together 14 business incubators and technology parks and the Central Asian Network of Business Incubators and Technology Parks, coordinated by the Business Incubator of Shymkent SODBI.

2. "DAMU" Entrepreneurship Development Fund", JSC (hereinafter the Fund) promotes the development of small and medium enterprises, including innovation by providing financial and consulting services. Since 2010, the Fund is working hard to implement comprehensive business development program "Business Road Map 2020", which collaborates with 30 partner banks and 11 leasing companies. As of July 1, 2014 the program "BRM-2020" signed 4,022 agreements subsidizing loans totaling 952.4 bn. tenge and 375 projects to guarantee loans totaling 25.7 bn.

3. "Kaznex" Corporation for Export Development and Promotion", JSC provides information and analytical support for the promotion of Kazakhstan products (including innovation) for export. The center conducts research in the field of marketing and management, provides consulting, information and technology services, publishes methodological and reference literature in the field of marketing and management, develops software products, distributes products and information on sectors of the economy.

4. "Investment Fund of Kazakhstan", JSC provides financial support through investing in the authorized capital of enterprises that conduct thorough processing of raw materials, using advanced technologies.

5. "Development Bank of Kazakhstan" JSC provides financial support for innovative projects and is designed to improve and increase the efficiency of public investment, develop industrial infrastructure and processing industry and assist in attracting investment to the economy. In the selection process of investment projects for lending, the priority is given to projects that form chains

of technologically related industries with high value-added and projects that provide a promising position with access to world markets.

Thus, with the help of new infrastructure for support of innovative enterprise, the government builds the system between an entrepreneur and the environment, contributing to the successful growth of new businesses and enhancement of their production volumes.

Direct and indirect measures to support innovative entrepreneurship

In the process of determining the policy of supporting innovative entrepreneurship, it is important to choose the nature of the support measures: direct or indirect. In the world practice, there is no unequivocal answer to this question. Some Asian countries, for instance, implement direct financial support to SMEs in the form of budget allocations (in terms of economic development of Malaysia, Indonesia, etc.). On the other hand, countries such as Germany, Japan and South Korea utilize indirect financial assistance (for example, income tax breaks and specific amortization rates for investments in manufacturing).

In the current times of economic crisis, due to the fall in oil prices and the resulting devaluation of tenge, the government budget of Kazakhstan is experiencing an acute shortage of financial resources. In such circumstances, indirect methods of government support of innovation should be a priority because they require much lower budget costs compared to direct financing and may cover a much greater range of innovation agents. Even with minimal resources, a rational government program to stimulate innovation might allow the country to take a leading position in the global scientific and technological development.

Given the above, it is proposed to focus on the following indirect measures of government support of innovative entrepreneurship:

1. Tax benefits are realized by reducing the tax base and tax rates, including the introduction of differentiated industry tax rates depending on the sector of the economy; taxation of the final innovative product; no VAT charges at any stage of the new cycle; establishment of innovation zones with preferential tax and tariff taxation; tax holidays for several years on profits arising from the implementation of the innovative project;

2. Preferential loans – the government can stimulate innovation using favorable in terms of maturity and interest rates bank loans and provision of government benefits (preferences) to commercial banks, including the introduction of the practice of compensation of interest on loans for development and adoption of new technology by small businesses until their commercialization; financing of innovative enterprises in the form of public investment and budget loans;

3. Government support for a financial lease, including the reimbursement to innovative companies for the lease payments for the purchase of new technological equipment, including imported ones;

4. Promotion of franchising, a well-proven support tool, widely used in foreign countries; upgrading law regulation of franchising; conducting an outreach on the benefits of this form of business organization;

5. Support for small and medium enterprises engaged in the production and distribution of innovation, including monitoring of status and trends of

development of innovative small businesses in terms of organization and implementation of research and analytical work in the field of innovation; implementation of an affiliate program for the development of SMEs in the regions of Kazakhstan with a purpose to develop innovative entrepreneurship in the regions, including the single-industry towns, through the combined efforts of large investors, financial institutions and the government.

The following are the key directions of development of innovation policy of Kazakhstan for the next 10 years.

The first direction is the development of innovative clusters, including those on the basis of Nazarbayev University and the Park of Innovative Technologies. Nazarbayev University, being the generator of new knowledge and innovative ideas, in fact, has laid the foundation for the future of science in Kazakhstan in new industrial branches.

The second direction is strengthening the role of the regions, which will coordinate innovation policy in the field. The success of innovation policy is impossible outside the context of regional development, which is the reason why they have to become "innovation growth points." One of the measures of government support of the development of these promising technologies will be to develop targeted technological programs that will be implemented with the involvement of science in business and financial support from the government.

Discussions

A study in this article shows that, in the world practice, the choice of measures of government support of innovative entrepreneurship does not depend on the stage of innovation development of the country or its level of economic development. The only difference is that in the industrially developed countries, direct support measures of small innovative enterprises are the continuation of policies to create a favorable environment for small businesses, including innovative entrepreneurship.

Moreover, all countries use a standard set of support mechanisms: grants, subsidies, soft loans and tax incentives, as well as establishment of research and innovation infrastructure and stimulation of demand for innovation and technology transfer (European Commission, 2014; "Research and Innovation Report", 2014; "Research and Innovation performance in the EU", 2014).

In our view, this approach is unjustified in the times of economic crisis, when the government cannot fully provide direct financial assistance. In such situations, indirect support comes first to create a system-wide support for businesses and the necessary investment climate for innovative entrepreneurship.

In a number of studies, scientists do not classify government support by direct or indirect form of exposure and often mix different levels (government and regional) of government support for innovative entrepreneurship. For example, A. Gribovskiy & S. Ushakova (2014) identify the following measures of government support of innovative business: administrative law; finance and credit; investment; tax; human resources; consulting and information; support for export activities; support for regional development; attracting small businesses to fulfill government assignments.

As we can see, authors include support of regional development in the general list of support measures, while it assumes specific number of support tools for a given level of management, such as:

- provision of subjects of innovative business with services and resources, infrastructure support of small businesses in high-tech fields of science and industry;
- establishment of a regional system of innovative business information services;
- organization and promotion of the regional and national market of innovative products, technological and scientific development of innovative businesses;
- creation of regional venture funds and extra-budgetary sources for its formation;
- provision of small businesses in the region with patent-licensing, consulting and other specialized services in the field of innovation;
- coordination of mechanisms for creating regional and sectorial innovation technology parks, and other infrastructure support for innovative entrepreneurship;
- promotion of regional and city Akimat in the implementation of regional measures for the development of innovative small businesses;
- monitoring of the status and trends of development of innovative small businesses in the area.

Conclusion

Analysis of the dynamics of the main indicators of innovation development has identified existing problems in the development of innovative business in Kazakhstan. Analysis of the problems and long-term development of innovative entrepreneurship has shown that measures taken at the macroeconomic level alone are not sufficient.

In the course of the survey of business entities, a number of problems hindering the development of innovative entrepreneurship have been identified: high risks of innovation processes; insufficient funding and deficiency of financial resources; imbalances in the structure of types of innovation; reduction in the costs of research and development and market research; inadequate regional and local legislation, lack of tax and non-tax incentives and preferences; outdated material and technical base for science, education and manufacturing; mismatch of necessary level of skills for innovation; incompetency of institutions of standardization, certification and patenting.

Government support of innovative entrepreneurship should involve: establishment of conditions for effective competitive mechanism of innovative entrepreneurship; assurance of full support of basic and developing innovations that form the basis for modern technological structure; promotion of innovation activity that stimulates revitalization of production, increase of competitiveness of domestic products; international investment cooperation, interregional and international technology transfer and protection of interests of national innovation entrepreneurship.

The article concluded that there is a need for a multi-level approach to government support of entrepreneurship (government – region – innovative enterprises). Government support should also be differentiated depending on the level of development and stages of the economic cycle. Thus, in times of crisis, it is necessary to give preference to indirect methods of support, including tax breaks, preferential loans, government support for financial leasing, franchising and support for small and medium enterprises engaged in manufacturing and distribution of innovation.

For detailed study of these questions, the authors plan to continue their research and make specific recommendations for the Republic of Kazakhstan.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes on contributors

Sarsengali A. Abdymanapov is a Doctor of Pedagogy, Professor of the Economics Department, Rector of Kazakh University of Economy, Finance and International Trade, Astana, Kazakhstan.

Aigul N. Toxanova is a Doctor of Economics, Professor of the Economics Department, Kazakh University of Economy, Finance and International Trade, Astana, Kazakhstan.

Alma H. Galiyeva is a Doctor of Economics, Head of the Economics Department, Kazakh University of Economy, Finance and International Trade, Astana, Kazakhstan.

Aigul A. Muhamedzhanova Holds a Master Degree, Senior Lecturer of the Economics Department, Kazakh University of Economy, Finance and International Trade, Astana, Kazakhstan.

Zhanar S. Ashikbayeva Holds a Master Degree, Research Assistant of the Economics Department, Kazakh University of Economy, Finance and International Trade, Astana, Kazakhstan.

Ainur S. Baidalinova Holds a Master Degree, Senior Lecturer of the Economics Department, Kazakh University of Economy, Finance and International Trade, Astana, Kazakhstan.

References

- Aliev, U. (2015) The General Theory of Innovation. Proceedings of the Scientific Seminar "Innovative Development of the Republic of Kazakhstan". Astana: Eurasian National University, 52-57
- Arundel, A. (2007) Innovation Surveys: What Impact on Innovation Policy, in Science, Technology and Innovation Indicators in a Changing World: Responding to Policy Needs. Paris: OECD, 49-64.
- Bayzholova, R.& Tankimov, B. (2015) Innovation as a Factor of Sustainable Future of the Economy of Kazakhstan. Proceedings of the Scientific Seminar "Innovative Development of the Republic of Kazakhstan", Astana: Eurasian National University, 39-43.

Blinov, A. (1997) Technoparks: Essence, Problems of Formation. Marketing, 3, 91-97.

Busygin, A. (2000) Business. Moscow: Economika, 188 p.

Dauranov, I. (2002) Small Business of Kazakhstan. Almaty: Mir: 168 p.

Drukker, P. (1985) Innovation and Entrepreneurship: Practice and Principles. Moscow: "Williams", 432 p.

- European Commission. (2014). DG Research and Innovation. The Need for Innovations in Business Models. Final Policy Brief. Direct access: https://ec.europa.eu/research/innovationunion/pdf/expert-groups/ERIAB-BMI_PB_new_business_models.pdf.
- European Innovation Scoreboard. (2013) European Commission. Direct access: http://ec.europa.eu/enterprise/policies/innovation/files/ius-2013_en.pdf.
- Gribovskiy, A. & Ushakova, S. (2014) Mechanisms of Government Support of Small Innovative Businesses Abroad. Science. Innovation. Education, 16, 205-221.
- Innovation for Growth. (2013). OECD Science, Technology and Industry Scoreboard. Direct access: http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-industryscoreboard-2013_sti_scoreboard-2013-en.
- Kantarbayeva, A. (2008) The economic Regulators of Business Support. Astana: Raritet, 101 p.
- Mamyrov, N. (2007) The basis of business. Almaty: Economika, 188 p.
- Measurement of Scientific and Technological Activities. (2005) Oslo Manual Guidelines for Collecting and Interpreting Innovation Data. OECD and EUROSTAT. Direct access: http://www.oecd.org/science/inno/2367580.pdf.
- Okayev, K. (2000) Business in the Republic of Kazakhstan, Almaty: Economika, 2000.
- Panzabekova, A. & Ruzanov, R. (2013) Innovative Development of the National Economy of the Republic of Kazakhstan: Institutional Environment and Priorities. Proceedings of the International Scientific-Practical Conference "Strategy "Kazakhstan – 2050". Astana: Ministry of Education and Science of the Republic of Kazakhstan, 99-104
- Research and Innovation performance in the EU. European commission. Innovation Union progress at country level 2014. (2014) Direct access: http://ec.europa.eu/research/innovationunion/pdf/state-of-the-union/2014/iuc_progress_report_2014.pdf.
- Research and Innovation Report (2014) Research and Innovation Policy. Direct access: http://www.sgi-network.org/docs/2014/thematic/SGI2014_Research_and_Innovation.pdf.
- Santo, B. (1990) Innovation as Instrument of Economic Development. Moscow: Progress, 295 p.
- Schumpeter, Y. (1982) The Theory of Economic Development. Moscow: Progress, 140 p.
- Shimshikov, Z. (2013) Global Innovation Trends and the Government Innovation Development of the Republic of Kazakhstan.Proceedings of the International Scientific-Practical Conference "Strategy "Kazakhstan – 2050" (pp. 41-48), Astana: Ministry of Education and Science of the Republic of Kazakhstan, 547 p.
- Stone, A., Rose, S., Lal, B. & Shipp, S. (2008) Measuring Innovation and Intangibles: A Business Perspective. Washington D.C: Institute for Defense Analysis, Science and Technology Policy Institute. Direct access: https://www.ida.org/upload/stpi/pdfs/ida-d-3704.pdf.
- Sydykov, K. & Shaynurov, A. (2008) Problems of Small Business Development. Almaty: "Zhety zhargy", 160 p.
- The Government Program of the Republic Kazakhstan of Forced Industrial Innovative Development of the Republic of Kazakhstan. (2010). Direct access: http://www.sgi-network.org/docs/2010
- The Global Competitiveness Report (2013–2014). World Economic Forum. Direct access: http://www3.weforum.org/docs/WEF_Global CompetitivenessReport_2013-14.pdf
- The Interindustry Plan of Scientific-Technological Development of the Country up to 2020, dated November 30, 2010 No. 1291.
- The Law of the Republic of Kazakhstan "On Government Support of Industrial Innovation" dated 26.01.2012, No. 29 (26848).
- The Law of the Republic of Kazakhstan "On Science" dated February, 18, 2011, No. 407-IV.
- The Law of the Republic of Kazakhstan "On Subsoil and Subsurface Use" (with changes and additions from 04.07.2013).
- The Resolution of the Government of the Republic of Kazakhstan "On the Approval of the Performance-2020 Program" dated 14.03.2011, No. 254.
- The Resolution of the Government of the Republic of Kazakhstan "On the Approval of the Program of Innovations and Assistance to Technological Modernization in the Republic of Kazakhstan for 2010 2014 years" (2010) dated November, 30, 2010, No. 1308.
- Toksanova, A. (2007) The basis of Business Activity. Astana: Print-S, 480 p.

- Toksanova, A., Galiyeva, A. & Galinova, A. (2015) Financial and Investment Mechanisms for the Implementation of Strategic Plans of the Financial-Industrial Groups. Journal of Kazakh University of Economics, Finance and International Trade, 1, 12-20.
- Utkin, E., Morozova, G. I.& Morozova, N. I. (1996) Innovative Management. Moscow: AKALIS, 208 p.
- Zhatkanbayeva, E. (2009) Small Business. Almaty: Al-Farabi Kazakh National University press, 144 p.