ҚАРЖЫ-НЕСИЕ ЖҮЙЕСІ
ФИНАНСОВО-КРЕДИТНАЯ СИСТЕМА
FINANCIAL-CREDIT SYSTEM

UDC 338.44

Y.Orynbassarova[1], A.Legostayeva[1], A.Omarova[1], G.Ospanov[2], M.F. Grelo[3]

[1]Karaganda Economic University of Kazpotrebcoyuz, Kazakhstan;
[2]Ye.A.Buketov Karaganda State University, Kazakhstan;
[3]University of Santiago, Spain
(E-mail: erke.08@mail.ru)

Development of financial support of innovative activity in the Republic of Kazakhstan

In article are considered the ehe modern economic strategy of RK is directed to creation of the balanced and flexible economy capable to compete at the international level, to provide acceleration of economic growth and increase in welfare of the population. Kazakhstan supports a course of innovative development as innovations in present conditions determine the level of economic growth. In this regard the role of innovative policy of the country increases. In realization of innovative policy of the state and creation of powerful industrial basis of the state, it is possible to note that sufficient financing of all industrial projects has to become fundamentals of innovative policy of the Republic of Kazakhstan, and for this purpose it is necessary to construct and realize investment policy competently. Today in the Republic of Kazakhstan it is created and successfully all necessary base for creation of innovative economy assuming creation of full-fledged innovative system in which several components - innovative and scientific infrastructure, including science and technology parks, design offices functions. It is financial infrastructure, first of all, innovative grants, venture funds, project financing and, of course, active participation of business.

Keywords: innovation, investment, economic, finance, project, technology, venture funds.

Dynamic development of the innovative sphere – one of main composed innovative economy. Such hi-tech economy assumes existence of effective innovative system and creation of institutes of support of innovative process. According to the UN, today Kazakhstan is not even included into the twenty of the hi-tech nations of the world. The top ten of the states with innovative economy includes Finland, the USA, Sweden, Japan, South Korea, the Netherlands, Great Britain, Canada, Australia and Singapore. Further China and India follow.

Innovative sectors represent all sectors of so-called «new economy» which development in many respects is defined by results of research and development, including: branches of mobile and multimedia technologies, nano - and space technologies, robotics, genetic engineering, search and discovery of energy of the future.

Development of new innovative sectors and creation of the knowledge-intensive branches cannot be solved without development of domestic science.

In this regard, participation of the autonomous organization of education «Nazarbayev of University» (further – AOO «Nazarbayev University»), a role which will consist in development of fundamental, applied and technological research and development in the field of energy efficiency and energy saving, renewable power and environment protection, perspective materials and power sources, development of the transmitting and personalized medicine for creation of fundamentals of the biomedical industry in the Republic of Kazakhstan is considerable.

Special attention will be paid to realization of basic and applied scientific research in the following relevant and perspective directions: the space equipment and technologies, technologies of renewable power

and clever networks, technologies of use of solar energy, modeling of development of power systems, information and communication technologies, computing researches, robotics, economy of environmental management and environmental protection, the electrician (materials for optoelectronic devices), regenerative medicine and researches on development of new biological products, development of biosensors for detection of tuberculosis, infectious agents and biology of cancer, an expression of proteins, models and mechanisms of an osteo-articulary disease, applied researches in the fields of organic chemistry and chemical technologies.

Formation of AOO «Nazarbayev University» as world-class research university by development of its research base and the system of scientific and innovative support is closely connected with development of the national scientific shots of the international class which are successfully combining teaching and scientific and innovative activity and also creating favorable conditions for involvement of the best domestic and foreign scientists.

For the purpose of development of effective system of preparation of national scientific shots joint programs with foreign partners in training of masters of sciences, doctors of PhD and organization of scientific training will be developed and realized, joint PhD of the program for research associates within their scientific projects are organized (without separation from research activity in Kazakhstan).

For development of competences and skills of the employees participating in the organization and implementation of scientific projects and programs (technical frames, services of administrative and technical support and maintenance and another), it is necessary to conduct on a regular basis courses of retraining and professional development according to the main and perspective directions of development of activity of AOO «Nazarbayev University».

As a result of the undertaken reforms from the moment of realization of GPFIIR the share of the innovation-active enterprises increased from 4 % up to 7,6 %, by 3 times costs of the enterprises of technological innovations increased (from 113,5 up to 326 billion tenges), similarly by 3 times the volume of innovative production grew (from 111,5 to 379 billion tenges). On a factor of «Innovation» of the Global index of competitiveness of the World Economic Forum Kazakhstan improved rating on 18 positions and took the 84th place, on a factor «Technological readiness» on 25 positions (the 57th place).

Despite the considerable scale of the measures for support of innovative activity taken in recent years still remain key problems:

– insufficient stimulation of a transfer of advanced technologies;

– inefficiency of mechanisms for the decision and search of priority technological tasks of the enterprises and business;

– low level of susceptibility of business to innovations of technological character;

– shortage of technological and administrative competences;

– backwardness of innovative technologies in an education system;

– imperfection of the control system behind implementation of innovative projects.

During realization of GPFIIR financing captured a wide range of branches that led to a lack of means when financing sectoral measures of support and a part of projects. At the same time, insufficient financing was in many respects connected with undeveloped domestic market financial infrastructure where funds of «long» money would be formed and long-term investments were attracted.

For lack of due financing of commercial financial institutions this niche in the Kazakhstan market was come from the outside to be occupied to the state through the system of national holdings and institutes of development. The system of institutes of development was expanded and adjusted taking into account needs of industrial innovative development. Various instruments of support of industrial development were tested: subsidizing of interest rates, reimbursement and granting grants on innovations and introduction of technologies, compensation of a part of expenses of subjects of industrial and innovative activity, guaranteeing the credits and other.

High credit loading of operating plants of processing industry and absence with the last free liquid assets for ensuring loan financing remain key barriers:

– inaccessibility of financial resources to formation of the share capital;

– inaccessibility of the long-term credits;

– cost of credit resources.

Now the stock market of Kazakhstan is estimated as not completely created institute as it did not become that component of the financial branch which is a source of replenishment of the share capital yet. Be-

sides, the backwardness of this mechanism in many respects constrains use of financial resources of the Uniform accumulative pension fund for needs of industrialization.

The high cost of crediting and in particular long-term crediting of the Kazakhstan financial institutions remains a serious barrier. In 2013 the average rate of remuneration on the long-term credits of BVU in national currency was 17,3 % per annum. In comparison with 2008 crediting cost in national currency grew by 1,1 percentage points. The relative low cost of the long-term currency credits (on average 10 % per annum in 2013) is leveled by high currency risks.

The growth of corporate crediting from BVU is hampered high «debt load» of the enterprises and not resolved situation with the problem credits. High level of the problem credits (with delay more than 90 days) in a loan portfolio of banks remains, since 2010. For February 1, 2014 the problem credits made 4,3 trillion tenge or 32,2 % of a loan portfolio of BVU, having increased since the beginning of year by 3,6 %.

As the major factors interfering increase in innovative activity of the enterprises it is possible to allocate:

– unavailability of the majority of scientific developments of technologies and products and to entry into the market that sharply reduces the value of the offered technologies in the opinion of potential partners;

– unacceptable conditions of investment and crediting;

– insufficient solvency of customers;

– high cost of innovations;

– insufficiency of own financial means.

The main reason for the fact that innovative developments remain only the ideas and do not take root is: when scientists invent something, they go to bank, to businessmen, in public authorities and present the idea there. But the idea to finance nobody wants. Money allocates only under the ready project. It is difficult to scientist to transform the idea to the project which would pay for itself and made profit. One of solutions of this problem which is now discussed in the government is a creation of network of offices of commercialization. Now in Kazakhstan scientists and businessmen do not understand each other. One speak language of the mathematical equations and chemical formulas, others – in language of money. Therefore the task of office of commercialization is in that, having taken the idea of scientists and having estimated it, to develop the ready project which will convince the businessman of advantage of introduction of an innovation [1].

Low level of investment into the sphere of research and development remains one more factor constraining modernization of the Kazakhstan economy and dynamics of innovative process. In lack of demand for technological innovations, probable success of the majority of programs of the transfer of technology will remain low. In this regard, the public policy (target programs through state orders or state tasks) directed to stimulation of the company to invest in innovations or through their own laboratories, or through orders to the scientific organizations is very essential. Besides, further improvement of a control system of science for the purpose of concentration of financial means, personnel and scientific and technical potential on the priority directions of science, and first of all – on ensuring needs of effective development of real production sector of the country, especially in those branches where Kazakhstan already has competitive results is necessary. Here, it should be noted that the rate of financial investments into research and development has to be compatible to rates of development of human resources which can effectively use investments. It is also necessary to create conditions for a transfer and commercialization of results of scientific developments and their introduction to economic circulation.

Practice of foreign countries confirms that the engine of innovative development is the small business sector the most flexible and susceptible to the ideas of innovations and transformations. The analysis of their activity showed that the small enterprises occupied in the innovative sphere, in developed countries for 1 % of expenses introduce in 17 times more of innovations and scientific developments, than the large enterprises. But in present conditions more than 85 % of small enterprises of the country are not connected with innovative activity that is explained by low appeal of innovations and ignorance of positive sides of the innovative sphere to development of an entrepreneurial activity.

Small enterprises generally carry out the innovations which are not demanding considerable investments and attraction of essential material, labor and energy resources. They are capable to reduce most social uncertainty in crisis situations, in the conditions of restructuring of branch productions, providing jobs for qualified specialists and workers.

One of the main obstacles in a way of development of innovative activity - a lack of financial resources. It belongs equally, as to own means of the enterprises and attracted, formed at the expense of the credits and individual share of partners.

Only large industrial enterprise monopolists having the stable or extending sales market can expand and modernize production only from profits in present conditions.

Thus, one of the most current problems – financing of small business. There are several sources from which small enterprises scoop borrowed funds: private creditors; venture funds; credit consumer cooperatives; the budgetary credits, including given out by regional funds of support of small business; credit institutions.

In financing small innovative the enterprise the local investment policy which purpose is creation of the mechanism of advance of investments into creation of objects of an entrepreneurial activity, first of all chosen production of the knowledge-intensive production, and at all stages of this process has to play an important role: from selection of perspective projects and staff recruitment for their realization before investment and the help in project management.

Transition to release of the knowledge-intensive production with the high value added which is based on existing, traditional for Kazakhstan, branches of economy have to become the main reference points. It will allow to provide increase in global competitiveness of economy at simultaneous increase in economic and social wellbeing of the population [2].

Relying on international experience in our country it is necessary to develop the highly effective scientific and innovative system allowing to unite through the branched system of horizontal communications of all participants of this process: scientific capacity of the universities and research institutes, innovative business at the enterprises and in the organizations, innovative and financial infrastructure. The successful solution of the set ambitious tasks is possible only on condition of effective functioning of national innovative system which now so far has only fragmentary character.

The developing situation demonstrates to absence at us such complete system that it is caused first of all, not operability of a technological corridor on creation of innovative production: the idea – the innovative offer – research and development – a prototype – production - the market. This model has to be based on «a triangle of knowledge» which unites scientific research, education and innovations and is a major factor in achievement of ambitious goals.

So, the ideas are formed by results of the basic researches relying on the previous experience and allowing to gain new knowledge during creative activity of her subjects acting in specific branch which infrastructure the set of the organizations, institutions, laboratories, grounds enters. But even at this stage we have problems. For implementation of this process our scientists have to be provided with the corresponding financing, fully have access to modern achievements of world science, independently gain new knowledge, carry out their transfer in production, adapting to the existing technologies.

The modern research laboratories and scientific and production associations and information networks which are closely integrated into the world community are for this purpose necessary. The status of scientists has to be defined, and conditions for their productive activity are created. Otherwise, the efficiency of generation of the ideas will remain at a low level. The science in itself expensive, but generation and dissemination of knowledge is national assets which in case of their commercialization and use can bring considerable political and economic dividends.

The existing model of selection and financing of basic researches, in the majority in a form and the stated dumping prices, but not according to contents, initially deprives many perspective scientific directions of money. This approach is focused only on drawing up reports on the basis of the scientific results received in Soviet period, many of which became outdated now and are not demanded by modern economy. It does not consider a condition of the formed new laboratory and research base at the Kazakhstan universities and research establishments, schools of sciences and their achievements. As a result today there is a deficiency of original scientific ideas which in the future could develop in considerable innovative projects [3].

Unfortunately, at us in the country the stage of formation of the innovative offer is practically not financed. Therefore the chain between basic and applied researches is broken often off. In world practice such works are usually supported grant a startup by financing that provides success in commercialization of results of scientific research. From this point the stage of innovations capable to lead to considerable technological breaks to economic welfare begins.

Participation of the universities and research establishments in generation of knowledge and their conversion in innovative products, and the processes demanded by roar assist increase in their competitiveness on global scientific and educational space in modern society. Therefore developmental works, expenses for which for orders are higher than the previous stages, have to be financed by private business. And here it is necessary to use mechanisms of preferential crediting and taxation. In Kazakhstan, due to the lack of these mechanisms, private business is not interested to make investments in this sphere. As a result, there is no demand for innovations.

Creation of the effective legislative base regulating all relationship between subjects of educational and scientific and innovative activity has to become the first step on this way. Even in the last edition of the law «About Science» over which there is a work now there is no scheme of transformation of scientific knowledge into a final commercial product. The offered science funding forms (basic, grant and program and target) without use of indirect mechanisms will not be able to interest business to make investments in the scientific and innovative sphere. In such conditions further the gap between science and production will only amplify, and the question of demand of scientific developments will remain still open. It is necessary that results of the fundamental and initial stages of applied researches were picked up by our and international business and further developed at the concrete enterprises. And for this purpose it is necessary to provide tax preferences to the enterprises allocating own funds for scientific and scientific and technical activity, to exempt from custom duties and tax discharge on value added import of goods of the scientific research imported on the territory of the Republic of Kazakhstan for carrying out. Unfortunately, recently tax preferences are represented only in the raw sector. The sphere of science and innovations still pays taxes fully [4].

As a result developmental works on creation of innovative production do not get necessary financial support and consequently there are also no conditions for its creation. The budgetary means are enough only for purchase of ready technologies (not always the best) or design documentation, created in other countries. With such approach we invest development of science and innovations of other countries while in Kazakhstan these problems remain not solved.

Private business has to be connected to creation of prototypes of new production also. Working in a close tandem with institutes of development, they have to create the knowledge-intensive productions, introduce new industrial links of higher limits, advance innovative production on the market. But, unfortunately, in our legislation there are no mechanisms, for development of this process. New approach demands development of the effective mechanism of interaction of all participants of a technological corridor (the organizations of the higher education and science, production, science and technology parks, institutes of development and business).

The important tool for successful functioning of all stages of creation of an innovative product are specialized zones of high technologies within which special leasing tools are used, preferential rent or special tax and customs regulations works. A basic factor is entry into a zone of the university that provides inflow of the innovative ideas and highly qualified specialists.

Such approach promotes attraction of investments into hi-tech spheres of economy and, as a result, their rapid technological development. One of the first and the best-known is Silicon Valley (California, the USA) differing today in the big density of the hi-tech companies connected with production of computers and their components, the software of devices of mobile communication, development of biotechnologies, etc. It is the third largest technological center in the USA (on number of the high technologies occupied in the sphere — 225300 jobs) after New York and Washington.

On creation of high-tech business in special economic zones China achieved considerable progress. So far across all China several thousands of zones of development of high and new technologies are created. 53 Zones of the state value achieved progress in distribution and commercialization of scientific and technical developments. 30 thousand firms located in zones received the status of the enterprise with hi-tech production [5].

From them there are 3 thousand enterprises whose gross output exceeds 100 million yuans a year, 200 enterprises — more than 5 billion yuans, 20 — over 10 billion yuans. The average annual gain of the main economic indicators in zones of development of high and new technologies of 13 years in a row remains at the level of 60 percent. It is quite possible to call them the important driving force of national economy. The Chinese economy became third largest in the world.

On this way also the Russian Federation went now, creating zones of technology development type (Tomsk, Zelenograd, Skolkovo, etc.). Relevant such approach remains also for Kazakhstan. It is pleasant that now it is implemented in East Kazakhstan as the pilot project on creation of a zone of high technologies which was submitted by head to the East Kazakhstan region Saparbayev B. M, to the President of the Republic of Kazakhstan Nazarbayev N.A. also got its approval. Such zone will allow to create the Wednesday favorable for development of science, innovative business, creation of new technologies and products, a transfer of technologies that will provide the balanced economic development of the region, favorable attraction of investments, creation of the enterprises with modern technologies, increase in the Kazakhstan export, production of high-quality goods, creation of new jobs. In the long term this zone has to become a basis of regional innovative system and the engine of economic modernization, both East region, and the country in general.

Development effective (for 5-10 years) the strategic planning of educational and scientific projects and the directions allowing to define interrelation between education, scientific research and processes of commercialization of their results has to become the second direction. We have to define scientific priorities, and how we will develop them and that we will receive as a result of their realization, having provided at the same time the corresponding training. Today uncertainty of target indicators of scientific and innovative activity, mainly one-year cycle of public financing significantly reduce the potential of economic development. As a result the majority of researches are conducted inefficiently, and their results are limited to scientific reports which and remain on shelves. Especially it concerns projects of a one-year cycle on which financing arrive in 2-3 months until the end of the year. And in this short time it is necessary to conduct researches and to present result. It is clear, that quality of such works quite low, and commercialization of results of researches is almost brought to naught. The question of personnel potential remains not mentioned at all [6].

The question on creation of conditions for scientific and innovative activity which has to be attractive to her subjects also is relevant. It is no secret that highly qualified personnel is a fundamental factor for creation of the competitive economy based on knowledge now. Therefore, preparation and development of the human capital are important. Today we can buy the high-performance knowledge-intensive research equipment. But without experts who could serve it, mastering the corresponding methodological receptions and turning out innovative knowledge-intensive products, such equipment will not bring breakthrough achievements. And here the special part is assigned to innovative education. Now the question, both deduction available highly skilled, and attraction of young shots in science and innovations is particularly acute. The main problems which slow down this process are: low material interest, bad or the research and development mediocre organization, insufficient or bad material and technical resources of researches, bad social conditions, uninteresting and unpromising scope of research and development, use of young scientists only at simple technical and auxiliary works. If conditions for creativity do not develop, then sooner or later there is either a degradation, or withdrawal from science. Now need for the solution of these problems by means of development and deployment of essentially new methods of involvement of talented experts to scientific research ripened. And here experience of many foreign countries of the academic mobility where various national schemes for simplification of creation of uniform labor market of scientists are used can appear positive. Implementation of the coordinated actions in this direction of various ministries and departments at the national level on creation of attractive conditions for scientific creativity in our country is necessary [7].

Important aspect of development of scientific and innovative activity is its monitoring. For example, in Europe within the Lisbon strategy the European board of innovations (European Innovation Scoreboard) within which 20 indicators characterizing innovative processes in the states of the European Union are developed and systematized functions. It is the database fullest today about tendencies of innovative policy in the EU which allows political figures of the European Union countries to reveal both strong, and weaknesses of their policy. Now ten editions of the European innovative board are published already. The last contains data on 39 EU Member States and also the USA, Japan, Canada, India, Brazil, China, Russia and Ukraine. The pool of all these countries provides 95 % of innovative activity of the whole world. Kazakhstan needs to be connected to this process and to carry out monitoring of the scientifically - innovative activity according to the criteria elaborated for the European board of innovations. It will allow to estimate the level of innovative development of the country and to develop effective mechanisms of strategic planning of scientific and innovative processes.

Let's sum up, there cannot be a developed state without solution of the above-named problems. In the conditions of the economy based on knowledge, a key role will be played by transnational and cross-border scientific and educational and innovative activity which will allow to provide synergetic effect in development of economy of our country. At the same time close interaction of education, science and innovations, will allow to turn them into a basis of further industrialization of economy and assumes creation of effective system of generation, distribution and use of knowledge.

References

1 Barancheev, V.P. (2011). Management of innovations. Moscow: Iuriat. Sverdlovsk OUNB; EF; Code 65.9(2); Author's sign B243; Инв. number 2313824-EF.

2 Faskhiyev, Hakimzyan Amirovich. (2015). System approach to management of innovative activity of the enterprises. *Problems of the theory and practice of management, 4,* 44–53.

3 Nacionalnynauchny portal RK Website. *nauka.kz.* Retrieved from http://www.nauka.kz. National RK scientific portal, Mutanov G. Reference points of innovative development.

4 Orynbassarova, Y.D., Yerzhanova, S., Mambetova, S., Zhaksybaev, K. & Kazbekov, T. (2017). Theoretical Bases of Investment Activity Management in Kazakhstan (Institutional Approach) Journal of Advanced Research in Law and Economics, Vol. 8, 1. JARLE Vol. VIII. Issue 1 (23). Spring 2017. P. 164–168. Scopus.

5 Maltseva, Anna Andreevna. (2015). A role of the intellectual capital of science and technology parks in ensuring their effective functioning. Problems of the theory and practice of management, 4, 54–62. *ripublication.com.* Retrieved from http://www.ripublication.com/ijaer16/ijaerv11n4_128.pdf.

6 Lopan, Valery. (2015). Innovations: decisions without introduction. *Business, 4*, 14–16. *businessfirst.com.* Retrieved from https://businessfirst.com.

7 Gracheva, M.V. & Lyapina, S.Yu. (2010). *Risk management in innovative activity: education guidance.* Moscow: UNITY-DANA.

Е.Орынбасарова, А.Легостаева, А.Омарова, Г.Оспанов, М.Ф. Грело

Қазақстан Республикасында инновациялық қызметті қаржылай қолдауды дамыту

Мақалада Қазақстан Республикасы экономикасының халықаралық деңгейде бәсекелеске шығуы үшін қолайлы қазіргі заманғы экономикалық стратегиясы, сондай-ақ халықтың ахуалын жоғарылату мен экономикалық өсуді жылдамдату жолдары қарастырылған. Осыған орай еліміздің инновациялық саясатының рөлі арта түседі. Мемлекеттің инновациялық саясатын іске асыру және мемлекеттің мықты өндірістік базасын құру барысында барлық өнеркәсіптік жобаларды қаржыландыру ҚР инновациялық саясатының негізі болуы тиіс және ол үшін мықты инвестициялық саясат құру және оны жүзеге асыру қажет. Бүгінгі таңда Қазақстан Республикасында инновациялық экономика құру үшін барлық қажетті база жинақталған, яғни ол толық инновациялық жүйені құруға негізделген. Онда инновациялық және ғылыми инфрақұрылым, ғылыми-техниалық парктер, конструкторлық бюро қызмет атқарады. Бұл, яғни қаржылық инфрақұрылым, инновациялық гранттар, венчурлық қорлар, жобалық қаржыландырулар және де міндетті түрде бизнестің белсенді қатысуы.

Кілт сөздер: инновация, инвестиция, экономика, қаржы, жобалар, технология, өнеркәсіптік жобалар.

Е.Орынбасарова, А.Легостаева, А.Омарова, Г.Оспанов, М.Ф. Грело

Развитие финансовой поддержки инновационной деятельности в Республике Казахстан

В статье рассматривается современная экономическая стратегия Республики Казахстан, направленная на создание сбалансированной и гибкой экономики, способной конкурировать на международном уровне, обеспечить ускорение экономического роста и повышение благосостояния населения. Казахстан поддерживает курс инновационного развития, поскольку инновации в современных условиях определяют уровень экономического роста. В связи с этим возрастает роль инновационной политики страны. Показано, что при реализации инновационной политики и создании мощной промышленной базы государства достаточное финансирование всех промышленных проектов должно стать основой инновационной политики РК. Для этого необходимо грамотно строить и реализовывать инвестиционную политику. Отмечено, что сегодня в Республике Казахстан создана вся необходимая база для создания инновационной экономики, предполагающая полноценную инновационную систему, в которой функционирует несколько компонентов — инновационная и научная инфраструктура, в том числе научно-технические парки, конструкторские бюро. Это финансовая инфраструктура, прежде всего, инновационные гранты, венчурные фонды, проектное финансирование и, конечно же, активное участие бизнеса.

Ключевые слова: инновация, инвестиции, экономика, финансы, проекты, технология, венчурные фонды.