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НОВІ ІНСТИТУЦІЙНО-ЕКОНОМІЧНІ СТРУКТУРИ, ЩО ВИКОРИСТОВУЮТЬСЯ ДЛЯ ОЦІНЮВАННЯ ТА ПОКРАЩЕННЯ СІЛЬСЬКОГОСПОДАРСЬКИХ ОРГАНІЗАЦІЙ

Анотація. У статті розглянуто внутридисциплінарну інтеграцію ново-інституціональної економіки та економіки трансакційних витрат. Запропоновано цей підхід для оцінки ефективності фермерських господарств та сільськогосподарських організацій. Наш новий підхід включає в себе: вивчення ферм і сільськогосподарських організацій, як керівних, а не виробничих структур; оцінку порівняльної ефективності альтернативних ринкових, контрактних, внутрішніх, гібридних моделей управління; аналіз рівня трансакційних витрат та їх інституційних, поведінкових, вимірні, техногенних та природних факторів; визначення критеріє ефективності ферми і її ефективних меж; уточнення економічної ролі держави і потреби державного втручання в аграрному секторі; а також оцінку порівняльної ефективності альтернативних форм участі громадськості.

Ключові слова: ефективність фермерських господарств та сільськогосподарських організацій; ринкове, приватне та державне управління.

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НОВЫЕ ИНСТИТУЦИОНАЛЬНО-ЭКОНОМИЧЕСКИЕ СТРУКТУРЫ, ИСПОЛЗУЕМЫЕ ДЛЯ ОЦЕНКИ И УЛУЧШЕНИЯ СЕЛЬСКОХОЗЯЙСТВЕННЫХ ОРГАНИЗАЦИЙ

Аннотация. В статье рассмотрена внутридисциплинарная интеграция ново-институциональной экономики и экономики трансакционных издержек. Предложено этот подход для оценки эффективности фермерских хозяйств и сельскохозяйственных организаций. Наш новый подход включает в себя: изучение ферм и сельскохозяйственных организаций, как управляющих, а не производственных структур, оценку сравнительной эффективности альтернативных рыночных, контрактных, внутренних, гибридных моделей управления, анализ уровня трансакционных издержек и их институциональных, поведенческих, измерительных, техногенных и природных факторов, определение критериев эффективности фермы и ее эффективных границ; уточнения экономической роли государства и потребности государственного вмешательства в аграрном секторе, а также оценку сравнительной эффективности альтернативных форм участия общественности.

Ключевые слова: эффективность фермерских хозяйств и сельскохозяйственных организаций; рыночное, частное и государственное управление.

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FINANCIAL MECHANISM OF THE INNOVATIVE ACTIVITY IN THE REPUBLIC OF KAZAKHSTAN

This article considers the theoretical and practical issues of development of the financial mechanism of innovation activity in the Republic of Kazakhstan. Identified current conditions and preconditions of development of the existing financial mechanism of innovation activity. Proposed to use a multi-channel system of financing of science and innovation in Kazakhstan which based on the active involvement of the private and non-budgetary funds.

Keywords: financial mechanism of development innovation, science and innovation in Kazakhstan, a multi-channel system of financing innovation.

Problem statement. As shows world experience, stable economic growth can be reached only on an innovative basis, in case of active use of modern scientific and technical achievements. Only in this case we can have the chances of high quality of growth, resource-saving, production efficiency, release competitive in the domestic and world markets of products are implementable. However the sum of domestic innovative enterprises is not rise and even falls. And no wonder that in the country few samples of new equipment are created with use of licenses, patents and other legal remedies of objects of intellectual property. It should be noted that many of these objects don't find application in production, morally grow old and depreciate. In this regard, the special importance is purchased by a problem of creation of the complete financial mechanism of implementation of priorities of innovative policy in Kazakhstan.

Analysis of the last researches and publications. Theoretical and practical aspects of forming and development of the financial mechanism of innovative activities adequate to requirements, regarding need of development of national innovative system were considered in publications of the Russian scientists of S. Yasin [1], L.Gokhberg [2], U.Baymuratov [3] Kazakhstan scientists, M. Kenzheguzin [4], F.Dnishev [5], A.Taubayev [6], however directly financial mechanism of innovative activities it wasn't offered.

Selection of the unsolved aspects of the problem. Without reliable financial base, stable sources and efficient financial incentives innovative projects and programs remain at level of "paper projects". By and large, in modern Kazakhstan still is absent, as such, innovative strategy and tactics, not to mention financial side of innovative policy.

Now is the time to develop and implement a long-term science-based innovation policy and an effective financial mechanism for its implementation, because the current system of internal financing and investment (capital) costs of scientific and innovative activity does not meet the priorities of the State Program of Forced Industrial-Innovative Development of Kazakhstan [7].

The purpose of the study of the financial mechanism of innovative activities consists in development of adequate mechanisms of providing by financial resources of the sphere of research projects and their implementations which provide industrial and innovative development of Kazakhstan.

Main results of research. The current status of innovative system of Kazakhstan is characterized by the following quantitative and qualitative indexes which is given in table 1. Despite considerable positive dynamics of quantitative indices as gross domestic product, the amount of financing of development costs and research, the number of the organizations and the personnel, engaged in researches and developments and the relative indicator of a ratio of costs for science and an innovation to gross domestic product has a downward tendency, and 6 times below than recommended value of 1%.

Table 1. Dynamics of indicators of functioning of the scientific and innovative sphere of the Republic of Kazakhstan

	2000		2005		2011	
	In KZT	In \$ one million on the official rate of 1\$ t =142,13 KZT	In KZT	In \$ one million on the official rate of 1\$ t =132,88 KZT	In KZT	In \$ one million on the official rate of 1\$ t =146,62 KZT
Gross domestic product billion KZT	2599,9	18292,41	7457,1	56119,05	27571,9	188050,06
Domestic expenditure on research and development in current prices, KZT millions	4706,8	33,12	21527,4	162,01	43351,6	295,67
in percentage of gross domestic product	0,18		0,29		0,16	
Number of the organizations which were carrying out researches and developments	257		390		412	

Table 1 (cont)

	2000		2005		2011	
	In KZT	In \$ one million on the official rate of 1\$ t =142,13 KZT	In KZT	In \$ one million on the official rate of 1\$ t =132,88 KZT	In KZT	In \$ one million on the official rate of 1\$ t =146,62 KZT
The number of the personnel occupied with researches and developments (on the end of the year), the person	14756		18912		18003	

Source: [8, 9]

If in detail to consider structure of financing of internal costs on researches and developments in Kazakhstan in dynamics (Table 2), we see that the main share (on the average more than 90%) is occupied by financing of current costs, and only since 2011 the specific weight of capital expenditures exceeded 11% that first of all is connected with

reforming of system of science funding in Kazakhstan and the beginning of implementation of the State program of the forced industrial and innovative development of Kazakhstan [7] within which allocation of investments is provided on financing of the research organizations.

Table 2. Structure of internal costs on researches and developments in the Republic of Kazakhstan

	2007		2008		2009		2010		2011	
	in KZT million	in % to total amount	in KZT million	in % to total amount	in KZT million	in % to total amount	in KZT million	in % to total amount	in KZT million	in % to total amount
Internal costs on researches and developments, total	26835,5	100	34761,6	100	38988,7	100	33466,8	100	43351,6	100
including:										
Internal current expenditure	25737,5	95,91	33685,9	96,91	38538	98,84	32114,7	95,96	38207,5	88,13
capital expenditures	1098	4,09	1075,7	3,09	450,7	1,16	1352,1	4,04	5144,1	11,87

Source: [8, 9]

In such a way, the scale and a condition of financing modern Kazakhstan innovations in the industry are that that budget financing isn't able to solve this main economic problem [10]. Company to ensure are interested its own survival and effective functioning of the interest in multi-channel sources of investment support. Resource support of innovative technology development of the industry can be performed at the expense of attraction both budget, and extrabudgetary funds, including:

- allocation of budgetary funds to the state customers of the knowledge-intensive products with a complete right of disposal of the grants from the limits of the relevant articles of the budget;
- attraction and use by state bodies of the centralized off-budget funds formed for an acquisition account from the

entities in case of accounting of centralized contributions in the prime cost the relevant products, other off-budget sources;

- attraction of its own funds received by including the expense of depreciation deductions and tax benefits or tax exemption with a target to use them for technical development, job creation, etc.;
- attraction of financial assets foreign customers of products enterprises;
- attraction commercial (including foreign) investments and the credits, including on the basis of the state guarantees to investors;
- attraction of means of domestic individual entrepreneurs;
- attraction of others, established by the legislation of Kazakhstan, borrowed funds.

All but the last, sources of the income are commercial and additional to the amounts of financing of the state order.

It should be noted that application of all listed sources of the income in a bigger measure is applicable to operating plants and is impracticable for creation of new productions of the knowledge-intensive products. Today for innovative technology development of industries it is possible to resort to external financing. The majority of the investors, aiming to enclose the financial resources in successfully developing Kazakhstan productions, are guided by search of projects in various sectors of economy. At present time managers of the entities use only 3 possible types of external financing:

- credit financing;
- direct investments of the relevant funds;
- leasing.

In case of credit financing there is a question of availability of property which will act as the guarantor of repayment of the loan, i.e. mortgage property. Besides, it is necessary to extinguish regularly percent, and also to pay the main amount of debt. As a result, there is a big risk not payback of the project and total loss of mortgage property in case of unsuccessful succession of events. In addition, it should be noted that more willingly issued to the enterprises producing raw materials or export-oriented industries (the proportion of loans in the period 2001-2010 amounted to about 75%). Really to assume that banks of the second level will reluctantly go on financing of the risk (venture) projects connected with production of high-technology, knowledge-intensive products [7].

The second option (direct investments in exchange for a share in property) can be, in our opinion, more preferable to the majority of the manufacturing entities of the of high technology products, though more unexpected. The advantages of this method of lending may be the following:

- 1) All investment risks takes on a new partnership fund.
- 2) There is no need of return of the credit and percent.
- 3) The entity receives additional financial resources for development and strengthening of the line item in the market. Besides there is a number of benefits of partnership with known western fund, fund of European Bank of Reconstruction and Development. Additional financial resources – a high guarantee of fast development of production, competitiveness and gain increase in a short space of time the maximum number of consumers.
- 4) The presence of the international relations of the investor allows to use as much as possible new opportunities (possibility of receipt of additional sources of financing under guarantees of the western investor).
- 5) Receipt of additional technical support, grants.
- 6) Value addition of shares (for joint-stock companies). Sales opportunity of own shares on a high price – a resource for development of new projects in the future.
- 7) Forming of the corresponding corporate culture in the course of work with the investor.

Why the Kazakhstan enterprises sometimes avoid cooperation with investment funds? There are some objective reasons which we have arranged in order of their ponderability:

- 1) The management of the entity doesn't possess information on the present possibility of expansion of production.
- 2) The management of the entity has no corresponding practice of communication with the western funds. In these cases it is recommended to address to services of the professional consulting firms which are engaged in the organization of negotiation process between the entity and funds.
- 3) Assessment of a share of fund in the entity. There is a need to carry out methodologically reasonable independent project evaluation.

4) There are own sources of financing. The question of attraction of external means doesn't arise at all though it is necessary to analyse alternative options.

Benefits of involvement of the consulting companies are obvious:

First, the fund receives information about the company from the third party, i.e. the so-called buffer zone between the entity and the potential investor is created. It assumes, on the one hand, elimination of information undesirable to the investor, on the other hand, the correct interpretation of requirements of fund to the project. Professional analysts carry out the financial and investment analysis of projects. Thus they use techniques which are borrowed from the western practice. It is necessary to develop financial model for an efficiency evaluation of a choice of this or that option taking into account requirements and methodology of potential investors.

Secondly, the financial model is the flexible tool, allowing to design various options of development. At the exit it is possible to see comparable results and to estimate feasibility of these or those management decisions.

Thirdly, the value assessment of business and reasons for calculations by independent experts has great value. The business value assessment by techniques of the western funds will allow to initiate process of attraction of direct investments in case of further work in this direction.

Also in case of attraction of direct investments the competent organization of negotiation process substantially influences an optimality of conditions of occurrence of the investor in business and its exit in case of the termination of term of the contract.

Some venture capital funds from the list also have indisputable advantages (investment at the initial stage of production, availability of a work experience in Kazakhstan, etc.) especially as the current legislation allows to pass to legal entities a re-registration with change of pattern of ownership, a form of business, the size of the authorized capital, etc. That is the decision on attraction of direct investments in innovative technology development of industries by cooperation with an investment fund, also as well as a choice of the relevant fund depends on strategy of the specific entity which chooses a management [11].

An important issue in the implementation of the financial mechanism of innovation and technological development of the industry in addition to funding sources is accounting features of the processes of research, development, creation and mass dissemination of innovations.

Depending on these features, three are possible significantly various forms of financing. They are distinguished by extent of communication of financing of works with the end results of scientific and technical researches.

The first. The most rigid form, can assume payment for only end result ("result – payment"). However, not all development, without speaking about teoretiko-applied, basic and basic researches, come to an end successfully that is connected with specifics of scientific work and existence of uncertainty of the purposes expected results natural to scientific activity, ways and means of their achievement.

As approaching closing stages of a cycle of scientific and technical research and a materialization of new knowledge, level and nature of uncertainty decreases. By purchasing a form of risk they becomes measurable and dependent on economic (resources, duration) and technical (the technical level of innovation, the level of consumer properties) indicators. However, the neglect of this feature, which is characteristic of the initial stages of the cycle, and the application to them of the most severe forms of funding will inevitably force researchers and developers to reduce neglect risk, both at the stage of signing the contract with the customer, and in

the course of its implementation, and reduce uncertainty bringing to narrowing of the sphere of search of new decisions. Therefore, in such circumstances from researchers and developers need to rejection of the search for new solutions which associated with an increased risk, which will inevitably lead to deformation of the nature of scientific activity, turning it into an application area for the accumulated knowledge and others, nonproper scientific ideas [6].

The second. Less rigid form of financing assuming the conclusion of the stage-by-stage contract for carrying out researches and development on creation of a scientific and technical product in interests of the customer. Such contract usually has the stage-by-stage character distributed in time assuming sequence as payments for expenses on performance of work. The stage-by-stage contract has double orientation – on the end result and on process of its consecutive achievement. The form of the stage-by-stage contract is most perspective for target financing of scientific and technical programs and research projects.

The third. The least strict form, which provides funding in dealing with issues of basic search and theoretical and applied research without a stringent requirements for the end product. It is funded by the process of solving problems, and not the end result. The most appropriate form of such controls – volume allocated state budget allocations, grants, subsidies. This form is the least conservative and sufficiently takes into account peculiarities fundamental and exploratory research in a situation where it is important to create the necessary scientific capacity capable of conducting research at an appropriate level.

Conclusions from of this research and prospect of the subsequent development in this direction. The financial mechanism of innovative activity has to be directed on achievement of strategic and tactical targets of innovative and technological development of the industry. Therefore, development of financial policy has to provide the solution of the following tasks:

- providing investment attractiveness of enterprises;
- the establishment of an effective mechanism for management of the enterprise;
- the use of market mechanisms to attract venture funding.

In the developing an effective control system by finance constantly there is a problem of combination of interests of innovative development of the enterprise and and the avail-

ability of cash reserves and solvency. Therefore the main challenge of innovation and technological development of the industry in the current economic situation is to find and efficient allocation of resources, primarily investments in their broadest sense (financial assets, securities, technology, machinery, equipment, licenses, property or property rights, intellectual values invested in the business and other activities for profit (income) and achieve a positive social effect).

Thereby, the successful implementation of the financial mechanism involves the efficient use of existing sources of financial and account of characteristics of the process of creating and implementing innovations.

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ФІНАНСОВИЙ МЕХАНІЗМ ІННОВАЦІЙНОЇ ДІЯЛЬНОСТІ В РЕСПУБЛІЦІ КАЗАХСТАН

Розглянуто теоретичні та практичні питання розробки фінансового механізму активізації інноваційної діяльності в Республіці Казахстан. Визначено поточні умови і передумови розвитку існуючого фінансового механізму інноваційної діяльності. Запропоновано використовувати багатоканальну систему фінансування науки та інновацій в Казахстані, на основі активного залучення приватних і позабюджетних фінансових ресурсів.

Ключові слова: фінансовий механізм розвитку інновацій, наука та інновації в Казахстані, багатоканальна система фінансування інновацій.

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ФИНАНСОВЫЙ МЕХАНИЗМ ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ В РЕСПУБЛИКЕ КАЗАХСТАН

Рассмотрены теоретические и практические вопросы разработки финансового механизма активизации инновационной деятельности в Республике Казахстан. Определены текущие условия и предпосылки развития существующего финансового механизма инновационной деятельности. Предложено использовать многоканальную систему финансирования науки и инновации в Казахстане, на основе активного привлечения частных и внебюджетных финансовых ресурсов.

Ключевые слова: финансовый механизм развития инновации, наука и инновации в Казахстане, многоканальная система финансирования инновации.