



The Innovative Directions in Agriculture of Kazakhstan

Dinar Abdrakhmanova

Graduate School, Mongolian State University of Agriculture, Mongolia

Purev Byamba

School of Economics and Business, State University of Agriculture, Mongolia

Kadrinov Maulet

Department of Finance, Faculty of Economics, Kazakh Agro-Technical University named after S. Seifullin, Kazakhstan

Abstract

In this article ways of increase of competitiveness of agrarian production, on the basis of introduction of the innovative directions in agriculture are considered. For a sustainable development of agriculture the innovative policy which basis there is an increase of efficiency of use of scientific and technical achievements has defining value. Becomes obvious that without harmonious, scientifically reasonable and balanced innovative policy, the system principle of its realization it is impossible to solve a problem of increase of profitability of agricultural production with scientific, resource, organizational and information support. Innovative process is connected with creation, development and distribution of innovations. It is process within which producers of innovations for receiving profit create and advance innovations to their consumers. The organization of innovative activity for the purpose of innovation finishing to the end user accepts huge value. Activization of innovative activity is the main condition in system of the factors providing development and increase of efficiency of agrarian production in market economy.

Keywords: Innovative policy, innovative directions in agriculture, agrarian policy

Introduction

According to opinion of our researchers, Kenzheguzin and Dnishev (2005) "The terms "innovation", "innovation" are used as process or result of process depending on a context. Innovations in material value mean idea, activity or material object which are new to the system accepting and using them. In too time of an innovation there is a process of emergence, development, adaptation and use of new useful result".

Tviss (2006) defines an innovation as process in which invention or the idea gets the economic contents. Nixon considers that the innovation is a set technical, the industrial and the commercial actions creating new and improved industrial processes and equipment in the market. According to Santo (2005), an innovation is such public and technical and economic process which through practical use of ideas and inventions leads to creation of the best products, technologies on the properties, and in case the innovation is focused on an economic benefit, the profit, its emergence in the market can bring in the additive income.

Corresponding author's
Name: Dinar Abdrakhmanova
Email address: rk_bin@mail.ru

The analysis of various definitions of an innovation leads to a conclusion that the specific maintenance of an innovation is made by changes, and the main function of innovative activity is change function. In world economic literature "innovation" is interpreted as transformation of potential scientific and technical progress in real, being embodied in new products and technologies.

Innovative process is connected with creation, development and distribution of

innovations. It is process within which producers of innovations for receiving profit create and advance innovations to their consumers. It begins with emergence of idea and comes to an end with its commercial realization. The simplest linear model of innovative process in general and including can be presented to agrarian and industrial complex in the form of a logical partition of uniform process on separate functional or structural parts (figure 1).

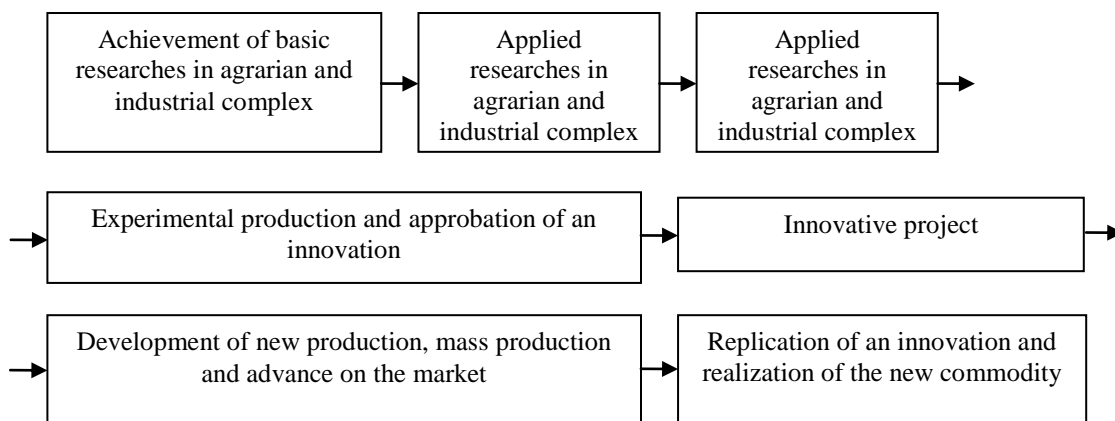


Figure 1: Simple (linear) model of innovative process in agrarian and industrial complex

In innovative process two phases are allocated: creation and distribution of innovations. The first consists of consecutive stages of scientific researches, developmental works, the organization of pilot production, test and approbation of a scientific and technical product, sale, the organization of commercial production. On the second phase the socially useful product takes root and the socially useful effect both between various producers of an innovation and between their consumers is redistributed. During distribution there is an increase of number and change of qualitative characteristics of innovations.

At the beginning of any innovative process there is a new knowledge (idea, the

invention, research result). It can be received in two ways: receipt of the initiating information (acquisition of patents and licenses, scientific and technical information and so on) or own development of the innovator. In one case the innovation already exists and possibility of introduction is rather proved. In other case the innovator (the firm, the enterprise modernizing the production system) develops an innovation independently, not very well - whether there will be its own laboratory or the third-party organization conducting researches on the order.

The system of innovative communications in agro-industrial complex can be presented, as shown in figure 2.

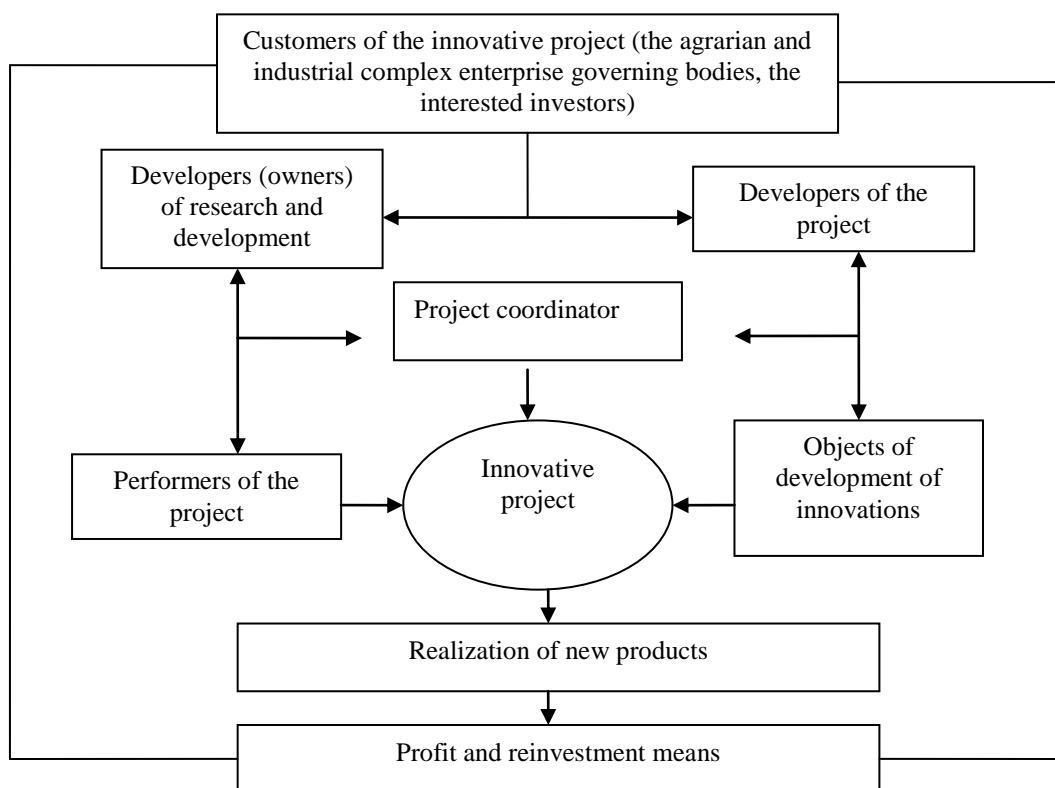


Figure 2: System of innovative communications

The main directions of realization of innovative policy in agro-industrial complex in the Republic of Kazakhstan are:

- Formation of the innovative system of agro-industrial complex including all scientific and technical capacity of the branch functioning on the basis of uniform scientific and technical policy of the state;
- Development and improvement of standard legal support of innovative activity, mechanisms of stimulation of protection of intellectual property in the innovative sphere and its introduction to economic circulation;
- Development of infrastructure of innovative process, including systems of information support, certification and advance of development, preparation and retraining of personnel;
- Further development of activity of agrarian science in the priority directions of basic and applied researches and development;
- Improvement of competitive system of selection of innovative projects and programs;
- Acceleration of development in production of achievements of science and technology and the best practices;
- Development of information and consulting activity in agro-industrial complex and legislative fixing of formation and functioning of system;
- Stimulation of development of innovative processes in branches and improvement of management of these processes;
- The state support of agricultural producers for the purpose of restoration of their solvency and increase of opportunity to carry out innovative activity;
- Development of business in scientific and technical and innovative spheres;
- Development of the international cooperation in the innovative sphere.

Careful working off of structure of innovative system is necessary for formation of innovative system in agro-industrial complex. Its main components have to become: the large companies, capable to make considerable investments in development in researches and development, to bring their results to a mass production, to modernize the equipment and so on; small innovative business with specific forms of its financing (the risk capital), the service organizations; the state with its legislative base, the scientific and technical policy directed on regulation and stimulation of innovative process with use of legal, economic, organizational means; the market of new technologies providing to innovative system feedback and demand for innovative production.

Methodology

The state and problems of agro-industrial complex of the Republic of Kazakhstan became a subject of serious researches in recent years.

Transformation of agrarian sector of economy is carried out on a basis:

- Maximum use of climatic, soil conditions and other resources;
- Introductions of scientific and technical achievements and advanced know-how;
- Improvement of economic relationship.

For a sustainable development of agriculture the innovative policy which basis is an increase of efficiency of use of scientific and technical achievements has the defining value?

Becomes obvious that without harmonious, evidence-based and balanced innovative policy, the system principle of its realization it is impossible to solve a problem of increase of profitability of agricultural production with scientific, resource, organizational and information support. The organization of innovative activity for the purpose of bringing an innovation to the end user accepts huge value.

Innovative activity begins with the moment of acceptance of an innovative solution. The bases for adoption of this decision remain a prerogative of persons, it accepting. Definite answer of a pas the question, what innovations will gain the bigger distribution, to what directions of development of innovations to give preference the theory of innovations can't give. The theory which enough reasonably would describe the implementation reasons, dynamics of scales of innovative activity, the possible directions of its development the world science yet didn't develop.

Creation and introduction of innovations in agrarian sector of economy is connected with the raised degree of uncertainty of receiving positive result and big risk of spent means. Results of this activity can bring success, but can put in a difficult situation if the actual results use of an innovation is significantly lower than expected results. According to Santo (2005), 60% of the new products introduced on the market didn't provide profit expected during their development.

Activization of innovative activity is the main condition in system of the factors providing development and increase of efficiency of agrarian production in market economy. Its fundamental element is the innovation representing creations, development, approbations, estimates, introductions and novelty distributions. Strategy of innovative activity is directed on surpassing competitors, to create an innovation which will be recognized as the unique. Therefore innovative strategy of the agricultural enterprises is connected with development of innovations which allow passing to new organizational and technological structure of production to provide competitiveness of made production on sales markets. It should be noted that innovative activity isn't limited only to activities for development of innovations, but also assumes assistance in realization of innovative process, namely administrative, investment and information activities.

In innovative activity of agriculture the central place is taken by new technology which unites new knowledge, means of labor and objects of the labor, labor and is bound with social and organizational changes, qualification of labor as most valuable and irreplaceable element of productive forces. Due to the lack of modern technologies, systems of cars for plant growing, animal husbandry, etc. the agrarian sector of economy endures the period of technological backwardness. Now there are only separate fragments of technology and types of equipment which in the technical and economic parameters (to reliability, productivity) significantly concede to foreign analogs.

Features of formation and development of innovative processes in agriculture are defined by specifics of the branch. The agriculture as branch of economy represents the difficult system consisting of a number of subsystems, including: social, economic, technological, organizational and administrative and ecological. Due to such structure of agriculture groups of factors are formed. On extent of influence on production (branch, entirely or separately taken enterprise) sequence of these groups it is possible to accept a bit different: 1. Technological group of factors 2. Economic 3. Social. 4. Organizational and administrative 5. Ecological.

Each of groups includes both external and internal factors. Among external factors as the main it is necessary to recognize factors of state regulation and influence of the market. It is necessary to carry system of administrative, legal and economic measures of impact on subjects of managing to factors of state regulation (system of pricing, tax, credit and financial, insurance, the budgetary support, work incentives, etc.). It is necessary to rank the developing level of prices for goods and services, compensation, solvent demand, a supply and demand of competitors, the market of credit and insurance services as market factors of influence, etc.

Technology factors of production are classified in relation to subsectors of

agriculture (agriculture, plant growing, animal husbandry) and spheres of its service (mechanization, power supply and automation of branch, processing and storage of agricultural products; transport service, etc.). In this group act as primary factors: climatic conditions, soil fertility, grades of agricultural plants, breeds of animals, systems of agriculture, the production technology of production of plant growing and animal husbandry, including system of processing of the soil, fertilizer, a security measure of plants, terms of carrying out agricultural works in the conditions of a concrete zone, a subband and other numerous factors.

Conclusion

Thus, the following belongs to the main features of formation and development of innovative process in agriculture: a considerable distinction of regions of the country on climatic conditions and specialization of production; a plurality of types of the made agricultural production, products of its processing, an essential difference in technology of cultivation of crops, contents and feedings of animals; a big difference in the periods of production of separate types of agricultural production and products of its processing; existence of a big variety of types of productions on forms of ownership, the sizes, specializations, subordination, cooperation, etc.; a strong dependence of production technologies in agriculture from natural and weather conditions, road and transport networks, types and the sizes of the enterprises (organizations), remoteness from the supplying centers and sales markets of production and other factors; a high degree of territorial dissociation of agricultural production; an isolation of agricultural producers, remoteness from the scientific information centers and the organizations making scientific and technical products; a different social and educational level of workers of agriculture; plurality of various forms and communications of agricultural producers with innovative formations; a lack of the accurate and evidence-based organizational and economic mechanism of transfer of

achievements of science to agricultural producers and, as a result essential lag of branch on development of innovations in production.

High level of complexity of agro-industrial production as systems and the specified features of innovative process in it predetermine an originality of approaches to development of innovations and methods of their realization in branch. In relation to agriculture innovative process represents a constant and continuous stream of transformation concrete technical, technological, organizational and administrative, social and others idea on the basis of scientific development in new technologies or its separate components and other actions, finishing them before use directly in production for the purpose of receiving qualitatively new production.

Limiting factors of innovative activity are a lack of own means and absence of external investments for acquisition of innovations and their development, an insufficient interest of producers in development of innovations both high investment and technological hazards, a lack of legislative base and the regulations regulating relationship and responsibility of participants - subjects of innovative activity, a lack of the system which is carrying out collecting, storage and granting reliable information about existence of effective scientific and technical products, development and implementation of innovative projects.

During the determining of a state and an assessment of prospects of scientific and technical activity it is possible to allocate

the factors influencing innovative activity: the political and economic stability; the organizational, i.e. system of scientific, educational and other innovative formations, the innovation-active agricultural and providing them enterprises, relationship and communications, coherence and balance of actions; the legislative and legal acts providing priority of scientific and technical transformations, institutional position of their participants, the innovative directed tax and investment policy; the material and financial and economic condition of the agricultural enterprises, all other innovative structures; the information systems and their opportunities to provide availability and completeness of information on new knowledge, scientific and technical achievements; the personnel potential of scientific and other innovative formations, and also consumers of scientific and technical products.

References

- Kenzheguzin, M., & Dnishev, F. (2005). *Science and innovations in market economy: world experience and Kazakhstan*. Almaty. Institute of economy of the ministry of science and education of the Republic of Kazakhstan, p. 256.
- Santo, B. (2005). *Innovation as the measure of economic development*. Moscow, Progress publishing house, p. 255.
- Tviss, B. (2006). *Management of scientific and technical innovations*. Translation from English. Moscow, Progress publishing house, p. 281.