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B.Zh. Uteyev<sup>1</sup>, A.S. Dosmanbetova<sup>2</sup>

<sup>1</sup>PhD doctor, assistant professor University of International Business, Almaty;

<sup>2</sup>c.e.sc., assistant professor University of International Business, Almaty

e-mail: bakytnur2013@mail.ru, adosmanbetova@mail.ru

THE PROSPECTS OF STATE INCENTIVES  
FOR ORGANIZATIONAL AND MANAGERIAL INNOVATIONS  
OF KAZAKHSTAN AGRO-INDUSTRIAL COMPLEX

**Abstract.** The necessity of Kazakhstan's transition to new methods of state stimulation of organizational and managerial innovations in the agro-industrial complex has been substantiated. It is proved that the scale and complexity of the modern complex of problems of the Kazakh agro-industrial complex does not correspond to the methods of their solution proposed in the current state program of development of agro-industrial complex of Kazakhstan for 2017-2021. The role of specially developed information systems in the formation of clusters is shown. It is established that the key directions of the state stimulation of organizational and managerial innovations in the Kazakhstan agro-industrial complex are, firstly, the integration of small businesses into the supply chains of enterprises of processing enterprises of Kazakhstan agro-industrial complex. Secondly, the introduction of special information systems that ensure the unity of formal and informal rules of business; analytical support for timely and adequate management decisions.

**Keywords:** agro-industrial complex, organizational and managerial innovations, state policy, clusters.

The President's Address "New development opportunities in the context of the fourth industrial revolution" (2018) has set the following tasks for the enterprises of Kazakhstan agro-industrial complex (AIC):

- setting of production of natural food conforming completely the world standards and ready to be supplied to the global trading networks under the brand "Made in Kazakhstan";
- increase of labor efficiency and export of the refined products in the nearest five years at least by 2.5 times (in average, agricultural products for amount about \$3 thousand fall on one employee per year, although in the developed countries this indicator is about \$ 50-70 thousands).

To solve these issues, the President aims the processing plants of agro-industrial complex on adopting new "smart technologies" [1], and on more active usage of different organizational and managerial innovations.

The goal of the research is analysis of programs efficiency of the AIC state incentive and search of the most prospective organizational and managerial innovations of processing plants of AIC.

The research technique is based on application of methods of AIC economy scientific foundations analysis, statistic data and information collected earlier by other researches in this field.

The President's Address to Kazakhstan nation "Strategy "Kazakhstan-2050" – new political course of the established State" assumed that already in 2014 more than 80% of food products at local market should represent national foods, it was stated that the social modernization of Kazakhstan is impossible without accelerated development of AIC processing plants, and food industry.

For the years of independence, Kazakhstan has developed ten program documents basing on which the national policy in AIC field has been implemented. However, no one of them was implemented completely – the planned results were not achieved.

Next to last, the ninth in succession program was aimed at improving the enterprises access to material resources of AIC, at developing the system of the national services provision to AIC enterprises, at

enhancing the efficiency of the state regulation of AIC. The program assumed stimulation of labor efficiency enhancement. It was planned to subsidize the expenses of processing plants enhancing, by this, its attractiveness for the private capital investment. The program did not discuss the direct national investments: the domineering role in the sector was assigned to private business.

The volumes of products output by the AIC processing plants have positive dynamics in recent years. However, as rule, the results are compared with previous year, not with 1990 which level of manufacture, by quite many positions, has not been achieved yet.

About 80% of AIC products are sold in the form of raw materials without refining, the end products of many processing plants of AIC is of low competitiveness. Thus, in the structure of food industry which share decreased more than twice against 1990, 71% falls to production of flour and bakery products, another 10.7% - production of beverages, and the rest part includes all other types of food products.

The manufacture of advanced processing products is not stimulated at all, the share of high-technological spheres reduces and is not able to cover the country demand with its products. Thus, the primitive production cycles domineer in food industry.

The coefficient of actual capacity utilization is low and ranges from 25% in dairy industry to 60% in fruit-and-vegetable canning industry. In comparison with 1990, the volume of production of the most critical products per capita has decreased from 4 to 50 times.

Among the main problems of the food industry are lack of raw materials, lack of large investments into the sector, regular shortage of circulating assets, high loan interest rates, uncompetitiveness of products by price and quality against foreign analogs.

By the level of meat consumption, the Republic fell to the level of 1965, milk – 1958, sugar – 1955, oil – 1976, fruits and berries – to 1960; the annual average consumption of sugar per capita is 18 kg, although the scientifically justified norm is 37 kg.

Despite the drop in production and consumption of food industry products, the volume of food industry goods sale in Kazakhstan increases annually by 5-10%.

The high dependence of Kazakhstan on import of many product types has been formed. Thus, the share of poultry meat import is 49%, sausage products – 50%, condensed and evaporated milk – 74%, cheese and cottage cheese – 58%, sausage products – 43%, confectionery products – 67%, fruit and vegetables preserves – 70% and sugar – 60%.

The “State program of the RK agro-industrial complex development for 2017-2021” plans the improvement of mechanisms on implementing the “State program of industrial and innovative development of the Republic of Kazakhstan in 2015-2019” adopted in 2014 (one of six priority sectors of industrial development of this Program is manufacture of food products).

To ensure equal access to subsidization of the manufactured products, the criteria, thresholds and standards are reviewed considering actual volumes of production, and there is also an opportunity to receive subsidies via incorporation into cooperatives. Further implementation of the investing subsidization program will be based on developing of new edition of “Rules of subsidization on reimbursing a part of costs incurred by AIC entity under the investments”. It is assumed to review the subsidization priority in favor of agricultural cooperatives implementing the projects on milk collecting stations, mini feed-milling plants, purchase of agricultural machines and other to cover more medium and small manufacturers of goods [2].

The improvement of practice of planning and state regulation of processing industry advances by “trial-and-error” method in parallel to modernization of the state management system.

However, the scale of complexity of the problems accumulated by the start of 2017 in Kazakhstan AIC do not correspond at all the ways of its solving proposed by the “State program of the RK agro-industrial complex development for 2017-2021”.

Among these problems are the following:

- low labor productivity level against the world one;
- archaic plant management system characterized by high level of administrative costs;
- underdevelopment of trade and logistics infrastructure, existence of uncontrolled number of mediatory parts, lack of connections between retail enterprises and manufacturers;
- availability of losses and expenses in the system of food products distribution during its movement among the regions of the Republic;

- lack and guaranteed sales markets for small and medium manufacturers;
- lack of organizational, technical and technological capabilities to form large, stable batches for export, etc. [2].

Instability of the world financial system, international and regional political crises, concentration of food resources at developed countries have led to global transformations at the world food market, among which are:

- redistribution of food flows among developed and developing countries;
- transition from the “age of firm low prices” to the period of high price volatility;
- the market shift from the model of limited demand to the model of limited supply.

The main trend of the world food market is further stiffening of reflationary policy on the edge of a trade war between the developed economy countries. The annual review “World Economic Outlook 2017” considers the turn to reflationary economic policy as one of new global threats of the world economy that can lead to a trade war between the developed economy countries [3].

The further improvement of the state protectionism methods that became threats to the national security of the most of the world countries that do not have enough power to ensure its national interests in food provision field is observed.

Under these conditions:

- the competitiveness of AIC processing plants depends significantly on its ability to synchronize the main business-processes and management models on the base of uniform information channels with its suppliers and customers along the whole supply channel;

- the most part of AIC processing plants, formally being autonomous and independent entities of the market, in practice are not self-sustainable and investment-attractive, are not able to develop on the principles of self-repayment and self-financing, participate in inter-industry competition on equal terms and to the full extent;

- the main tendency of AIC development is creation of integration mechanisms that formally are not bounded by fixed property rights, informal associations that include enterprises of all parts of supply chain “production (crop growing and cattle breeding sectors) – processing (food sector) – distribution (wholesale and retail trade)”.

The investigations conducted by Kazakhstan [4-7] and foreign [8; 9] authors show that the key problem of AIC is in underdevelopment of small business and mechanisms of its integration into supply chains of processing plants.

According to N.A. Nazarbayev “if earlier the labor productivity at Kazakhstan enterprises per one person was 10-15 thousand dollars, now it is 80 thousand. Under such productivity all large enterprises, want we or not, will shed jobs. That is why I always say that it is necessary to develop small and medium business. Namely there people will find jobs. Development of small and medium business is on the first place in the policy and economy of our country” [10].

The main problems that, in opinion of O. Sabden, impede the development of small business are:

- imperfection of the legislative base in the field of small entrepreneurship (for instance, the laws on small innovative entrepreneurship, on self-controlled organizations, commercialization of developments and other have not been adopted yet);

- insufficient governmental support of small entrepreneurship;

- insufficient innovative activity of small entrepreneurship, commercialization of developments and venture activity;

- problems of human resourcing and training of professionally competent specialists for small entrepreneurship, especially in regions, villages;

- inefficiency of existing financial and credit mechanisms of small entrepreneurship and taxation system;

- underdevelopment of consultative, informational support of small enterprises, and other [11].

Nevertheless, small business, from almost isolated subsystem of the national economy, in the nearest time, “should become an organic constituent part of integrated production and financial complex... to develop small business in RK it is necessary to create conditions, when large business invites small business enterprises in the process of cluster forming” [11].

Development of small business in Kazakhstan is associated with prospects of cluster forming centers of which should be “anchor investors” – one of the main ideas of the State Program “Hundred concrete

steps to implement five institutional reforms". It is planned "to create joint enterprises with anchor investors – international strategic partners in the priority sectors of economy" (step 56) – transnational companies having successful experience "in production of milk and dairy products" (step 60); "production and processing of meat" (step 61) [12].

In Kazakhstan, cluster analysis of the national economy was conducted more than ten years ago by M. Porter. However, the tasks of economy diversification set within "Kazakhstan cluster initiative" remained unsolved – formation units did not understand and adopted seriously its endogenic nature. Cluster is voluntary self-organizing association of entrepreneurs / network structure of economic agents; in its essence, it cannot be created by administrative will; an obligatory condition for its forming is lack of any external authority and control. The national authorities can create conditions favoring its forming, but cannot manage its activity [13, p.243].

On the one hand, the problem of clusters forming is in controversy between the tasks on enhancing the efficiency of the national economy and interests of people managing this economy. For any top-manager, a perspective of cluster forming in his "control zone" is a real threat to lose a part of his power authority, a part of administrative authority [14].

On the other hand, on the worldwide level we can observe the rush development of economic agent network structures that resulted in appearance of a whole range of qualitatively new approaches to management in business organizations, such as:

- orientation on the national features of the organization culture;
- transition to description of procedures and problems of business-organizations management on the information technologies language;
- distrust growth of managers-experts to recommendations of scientists stipulated by inclusion of the research community into the industry of consulting services;
- refusal from hierarchical structures managed from one center in favor of self-organizing network ones, that stipulated refuse from process approach application;
- refusal from retrospective linear analysis of economic indicators as information base of analytical procurement of management system;
- review of the concept and procedures of strategic management.

According to forecasts of specialists, the competitiveness of companies in the nearest decades will be determined not by technical innovations, new goods, equipment and technologies, but innovative systems of management.

According to M. Porter "in the situation, when sectors borders are remade and new economy sectors appear, the relations with traditional business partners and competitors are formed in a different manner; new prospects are opened to the companies, they encounter with new threats and start to play new roles, a qualitatively new approach is needed to analytical procurement of strategic planning and management in business organizations based on processing of large volumes of data generated by equipment of new type" [15].

Such approach is ensured by adoption of special information systems allowing the information exchange among all active and potential participants of the network; the integrity of formal and informal rules of business; analytical support for making timely and proper management decisions.

To solve first two tasks it is quite sufficient to create the Internet-server where all working materials with detailed classification and accessible to the network participants is published; systems of electron mailing lists (on the base of e-mails and Internet forums) by individual topics of project and subprojects, and information portal that will highlight the activity of the network participants.

To solve the third task – analytical support to make timely and proper management decisions – it is necessary to develop a special information system.

The conducted research allows making the following conclusions:

1. The peculiarity of the state regulation of AIC processing enterprises under the contemporary conditions is that it is directed not onto the market entities, but to its functioning medium, with entrepreneurs reserving the right to make managing decisions independently.

2. Development of AIC processing plants is considered in recent legislative documents not as a process of Kazakhstan manufacturers competitive advantages forming, but qualitatively different – in the context of Kazakhstan social modernization tasks. When the main goal of development – not creation of

competitive enterprises, but work places with high salaries level: the main indicator of the sector enterprises development should not be the volumes of production or growth of business value, but average level of salary.

3. Key courses of the state stimulation of organizational and managerial innovations in Kazakhstan agro-industrial complex are in the following:

- integration of small business into supply chains of processing industry plants of Kazakhstan AIC;
- adoption of special information systems ensuring the information exchange between all active and potential participants of the network; uniformity of formal and informal rules of business; analytical support for making timely and proper managerial decisions.

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Б.Ж. Утеев<sup>1</sup>, А.С. Досманбетова<sup>2</sup>

<sup>1</sup> PhD доктор, Халықаралық бизнес университетінің доценті;

<sup>2</sup> Халықаралық бизнес университетінің доценті, э.ғ.к., Алматы қ., Қазақстан Республикасы

## КАЗАҚСТАН АГРОӨНЕРКӘСІП КЕШЕНІНДЕ ҰЙЫМДЫҚ-БАСҚАРУШЫЛЫҚ ИННОВАЦИЯЛАРЫН МЕМЛЕКЕТТІК ҰНТАЛАНДЫРУДЫҢ БАСЫМДЫҚТАРЫ

**Аннотация.** Мақалада Қазақстанның агроөнеркәсіптік кешеніндегі ұйымдық-басқарушылық инновацияларды мемлекеттік ынталандырудың жаңа әдістеріне ауысу қажеттігі негізделді. Қазақстанның АӨК қазіргі мәселелері кешенінің ауқымы мен күрделілігі олардың шешімін табу бойынша ҚР агроөнеркәсіптік кешенін дамытудың 2017-2021 жж. арналған қолданыстағы Мемлекеттік бағдарламасында ұсынылған тәсілдеріне сәйкес келмейтіні дәлелденді. Арнайы әзірленген ақпараттық жүйелердің кластерлерді қалыптастырудағы ролі көрсетілді. Қазақстанның агроөнеркәсіптік кешеніндегі ұйымдастырушылық-басқарушылық инновацияларды мемлекеттік ынталандырудың түйінді бағыттары анықталды, олар шағын бизнестің Қазақстанның АӨК өңдеуші кәсіпорындардың өндірістік-өткізу

тізбектерімен ықпалдасуымен, бизнесті жүргізудің ресми және бейресми ережелерінің бірыңғайлығын қамтамасыз ететін және заманауи басқарушылық шешімдерінің қабылдауға мүмкіндік беретін арнайы ақпараттық жүйелерін енгізумен сипатталады.

**Түйін сөздер:** агроөнеркәсіптік кешен, ұйымдық-басқарушылық инновациялар, мемлекеттік саясат, кластерлер.

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**Б.Ж. Утеев<sup>1</sup>, А.С. Досманбетова<sup>2</sup>**

<sup>1</sup>PhD доктор, доцент Университета Международного Бизнеса;

<sup>2</sup>к.э.н., доцент Университета Международного Бизнеса, г. Алматы, Республика Казахстан

### **ПЕРСПЕКТИВЫ ГОСУДАРСТВЕННОГО СТИМУЛИРОВАНИЯ ОРГАНИЗАЦИОННО-УПРАВЛЕНЧЕСКИХ ИННОВАЦИЙ В КАЗАХСТАНСКОМ АГРОПРОМЫШЛЕННОМ КОМПЛЕКСЕ**

**Аннотация.** В статье обоснована необходимость перехода Казахстана к новым методам государственного стимулирования организационно-управленческих инноваций в агропромышленном комплексе. Доказано, что масштаб и сложность современного комплекса проблем казахстанского АПК не соответствуют способам их решения, предлагаемым в действующей Государственной программе развития агропромышленного комплекса РК на 2017-2021 гг. Обоснована роль специально разработанных информационных систем в формировании кластеров. Определены ключевые направления государственного стимулирования организационно-управленческих инноваций в казахстанском агропромышленном комплексе, которые заключаются в интеграции малого бизнеса в производственно-сбытовые цепочки предприятий перерабатывающих предприятий казахстанского АПК; и во внедрении специальных информационных систем, обеспечивающих единство формальных и неформальных правил ведения бизнеса, аналитическую поддержку принятия своевременных и адекватных управленческих решений.

**Ключевые слова:** агропромышленный комплекс, организационно-управленческие инновации, государственная политика, кластеры.

#### **Information about authors:**

Uteyev B.Zh. – PhD doctor, assistant professor University of International Business, Almaty, e-mail: bakytnur2013@mail.ru;

Dosmanbetova A.S. – c.e.sc., assistant professor University of International Business, Almaty.