

ORGANIZATION OF THE AGRICULTURAL SECTOR ON THE BASIS OF CLUSTERING

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Annotation. *The article considers the issue of the development of the agricultural sector based on clustering. Scientific and innovative content of cluster formation in the agricultural sector and its impact on the growth of competitiveness is disclosed. The expediency of cluster organization of agro-industrial production through the need to create a system targeted at the final qualitative result of the activity is substantiated. The main tasks of creating cluster groups are defined and the components of designing the interaction between different companies within the cluster are proposed. The current research is aimed to create a competitive economy with optimal and efficient production structure, able to provide extensive cooperation with its resource area, to produce high quality competitive products and maintaining an adequate level of the state's food security.*

Keywords: *clustering, agriculture, economics, organization, science, innovation, competitiveness.*

The processes of cluster development aim at enhancing the competitiveness of all economic agents. The essential feature of clustering in the agricultural sector develops through the acceleration of the development and competitiveness of individual subjects at economic units, branches, rural, regional and domestic economy in general. Clusters represent a complex system of relationships between economic agents, enable to enhance the beneficial effects of entrepreneurship and are an effective tool of the economy organization, control of economic activity, and enhancing competitiveness [1].

Cluster is a territorial intereconomic association of not only mutually complementing enterprises (both of large and small businesses) that cooperate with one another, forming a full technological cycle of gross production and sale of competitive final products (goods and services), while maintaining both legal independence of its participants and infrastructural components, to which belong state authorities and scientific institutions, creating favorable conditions for the production and promotion of cluster members at the food market. [2].

In order to implement a model of cluster development it is necessary to create certain conditions: balance of economic interests of cluster members, scientific, innovation and information supply, the availability of investment and innovation support, consulting support, the development of vertical and horizontal integration.

The article is aimed to disclose the scientific and innovative content of cluster formation in the agricultural sector and its impact on the growth of competitiveness level. The feasibility of clustering agro-industrial production is explained by the need to create a system aimed at reaching a qualitative final product with equivalent profit allocation among the cluster members. The proposed research is aimed to create a competitive economy with optimum and efficient production structure, able to provide

extensive cooperation with its resource area, to produce high quality competitive products and maintain an adequate level of state's food security.

The feasibility of the task of prioritizing the development of the agricultural sector is possible through the establishment and operation of clusters, since it activates the mechanism of high-grade investment from its own resources and creates conditions for the in-flux of foreign investments.

The agricultural cluster is a system that operates on the basis of cooperation of geographically adjacent agricultural producers, combining different forms of management, capital goods producers, processing enterprises that function on the basis of competition and cooperation among themselves and support innovative development in joint efforts of the organization. This system aims to create competitive products.

An effective tool for implementing large-scale projects of financial and industrial enterprises in a competitive market can become business partnerships, joined in groups on the industrial, territorial or other basis, i.e. clusters. Efficiency of clusters is provided through the use of geographic concentration of related industries, consolidation of efforts of industry and research centers. Experience of cluster establishment convinces about the prospects of such an approach to the economic development [3].

The competitiveness of domestic agricultural producers in the world market is at a relatively low level due to the lack of material and technical supply, low qualified labour force, the use of outdated technologies, inadequate loan mechanism. Unlike the majority of industries, agriculture should not be based on the overall economic policy, because it has a specific character and requires a special approach, which is possible only due to essential and active state support. Currently there are no objective conditions that would ensure the creation of conventional capital flow market conditions in agriculture, that would enable the farms to manage a normal extended and even a simple reproduction.

The process of clustering of regional AIC is better to appropriate gradually through the adoption of evidence-based medium-term regional programs of developing cooperative, integrative and cluster associations. [4].

The main objectives of the creation of cluster associations in agriculture entail:

- enhancing competitiveness of cluster participants through the introduction of innovative technologies;

- reducing production costs and increasing the quality of merchandise through synergetic effect;

- unified approach to quality management, logistics, engineering, information technologies;

- creating new jobs and providing permanent employment under economic reforms;

- joint lobbying of interests of the cluster members in government bodies;

- providing the most completed production cycle;

- access to the world markets of the agricultural products and exchanges;

- creation of the efficient system of access to and exchange of information concerning the demand and supply at the market.

The peculiarity of the cluster organization of production is that the bulk of the profit from sales is allocated among members of the cluster according to the share of spending in the final product. This enables to moderate the negative impact of disparities in agricultural complex.

Besides, we can highlight such restricting factors in the development of agricultural clusters in Ukraine as: imperfect legislation; weakness of existing agricultural clusters due to the low level of competition in the market; inadequate cooperation of education, science and agriculture; unwillingness and reluctance of many businesses to exchange information and lack of a unified information database of existing and potential clusters. Besides, insufficient foreign investment and venture capital do not promote clustering.

Transition to clustering of agricultural production should be reflected in agrarian policy as a long-term program objective, successful implementation of which requires coordination of efforts of industrial groups, infrastructural components of welfare and cultural services in rural areas, agrarian science and education of local governments, regional and state management, while directing their joint funds to the achievement priorities defined for each agricultural and socio-economic cluster. However, this level of interaction within the existing system and "top — down" management of the agricultural sector can not be achieved. It is necessary to rebuild the system of state and public control over agricultural production and rural social sphere on the principles of decentralization and self-government [5].

The process of disbalance in economic and social development at the regional and local levels considerably complicates the implementation of a common policy in the field of socio-economic transformation, increasing the threat of regional crises, preventing the formation of the national market for goods and services, restricting the full use of the existing potential of interregional cooperation and complicating the solution of environmental problems.

Building an effective integrated system of producers in the AIC is possible on the basis of cluster approach, the essence of which is to create an effective interaction of business of corresponding specialization, which are united by one technological process and the final product is a joint achievement of all members of the association. Problems of optimization of branches allocation and regional specialization become relevant during significant economic changes since the cluster is an agglomeration of leading companies, suppliers of components, services and materials, and associated with this industry structures providing necessary resources for development. An important argument in favor of clustering in the agricultural sector, able to improve its role and place in the overall national economy, is a continuing need for government support.

When a cluster is created, economic interests provide the basic conditions for business or general structure that is necessarily based on the available interested stakeholders of cluster associations who will surely gain an economic benefit.

Thus, according to the studies, at the present stage of development the cluster approach should be used to determine the cooperation of business associations, whose scope is not confined to organizational and legal forms envisaged by the existing legis-

lation, a program-based mechanism of promoting innovative investment processes of AIC development, a forecasting analytical mechanism of state and corporate regulation of effective functioning of gross integrated structures according to the governance principles on "boundary terms" and "points of growth"; coordinating mechanism of managing integrated scientific and industrial agricultural structures.

It means it is necessary to form territorial-production agro-industrial clusters with a high level of specialization and concentration of the agricultural production to the fullest possible use of natural and spatial advantages of rural areas and on this economic basis to develop socio-economic clusters to create proper living conditions for rural population, thus making the rural area more attractive.

The agents of the agricultural sector being socio-economic systems are dynamically variable objects, not statically-stable, so while managing them it is important to ensure their sustainable development and self-development. Such a requirement is especially relevant for the management in modern conditions of intensive development of global integration processes [6]. This is caused by conservative management systems aiming to make changes in organizational units which is the result of psychological factors and the managerial staff being unprepared to work in new conditions of the rapidly changing competitive market environment.

An important condition for the creation of agricultural clusters is a high level of specialization and concentration of the main branches of agricultural production, providing optimal use of natural and economic factors and lays the economic foundation for cluster associations. It is the cluster approach that enables to realize specialization and standardization, minimize the costs of innovations, enhance the effectiveness of interaction of the private sector, state and research institutions and loan structures.

While forming agricultural clusters it is necessary to take into account their main features. Thus, developing the structure and the mechanism of interaction between the cluster members must be directed at the establishment of the effective system of competitive products and be based on the distinct respective methodology. The rational project of any organization is the development of its productive and administration systems, that depend on the number of organizational economic factors and play an important role in its creation.

Features of the interaction of various businesses within the cluster involves the development of the following provisions:

- general provisions for the members to exercise their rights to voluntary unity of their industrial, scientific, commercial and other activities with other entities;

- the structure of the cluster, which is developed as a voluntary non-statutory association of existing domestic or foreign economic agents, namely industrial and other companies, commercial banks and their subsidiaries, insurance companies, chamber of commerce, commodity exchanges, regional agri-trading houses, etc;

- the legal status, under which active members of the cluster are considered the entities/agents that recognize its provisions, and on whose behalf, by a decision of the respective body, such as the general meeting of shareholders or organization whose authorized managers submit corresponding documents to the cluster board. Associate

Members are considered cluster entities united into a research and technology center within the cluster, and cooperate with current members of the cluster on a contractual basis;

- the aim and nature of business based on protection of commercial and other interests of its members, improving the competitiveness, promoting the development and expansion of markets for goods produced by members of the cluster, coordinating their activities, implementation of joint investment programs. The cluster activity includes the implementation of the relevant authority from centralized coordination of its members;

- functions and powers of cluster members including: identification of key areas of industrial, commercial and financial activities of the cluster; conducting coordinated foreign trade and investment policies; determining the form and frequency of reports of participants and their circulation among the parties; examination and approval of business plans, enterprise restructuring and commercial projects of participants; representing and protecting the rights of the members in relations with other agents/parties and public authorities; coordination of members' entry to other economic units.

According to J. E. Kirillov: "The effectiveness of the cluster model is achieved through the innovation, development of mutual cooperation, convergence of competition and mutual exchange of information, knowledge and know-how" [7].

The use of cluster model of agricultural sector development is based on the need for updated forms and methods of social and economic systems and is aimed at complex use of scientific, technical and socio-economic potential of the area.

The presence of a cluster is believed to stimulate the spirit of entrepreneurship, facilitate the links to realize the projects. Cluster enterprises are known for their high innovativeness. The main factor that influences the innovation in production is the innovative activity of agricultural enterprises, providing their activities on generation, creation, development and production of agrarian innovations, intellectual property [8].

Science and innovation profile of cluster analysis is a means of functional relationships through the evaluation of conditions and the results of the innovative entrepreneurship. The tendency to form cluster groups as a factor of innovative development is becoming more common being implemented: around leading research institutions built on knowledge and typical for companies with high intensity of research and developments; enterprises, whose innovative activity depends primarily on the ability to collaborate with the developers of innovative products or technologies; enterprises with complex systems of information conversion in order to provide specialized services to their clients; enterprises with high costs for research and development, targeted at innovation and relationship with consumers. До можливостей, що несе в собі кластерна організація слід віднести наступні:

- enhancing competitiveness of cluster members through innovation;
- achieving synergetic development effect;
- improving the quality of agricultural products and reduce costs by unifying approaches on the basis of the renewal and activization of information links in logistics, engineering, process development;

- ensuring the interests of the cluster members through their consolidation in government;
- raising the level of expertise and capacity to accept innovations; – розширення ринків збуту продукції;
- more efficient and rational use of available resources as well as of investments;
- mutual enrichment of knowledge, ideas, contributing to the intellectual capacity;
- financial support among members of the the cluster, forming unified financial resources;
- mutual complementarity and harmony of cluster components through implementation of joint organizational and economic measures and effective marketing;
- enhancing productivity and flexibility to achieve the effect of a scope.

Conclusions. The organization of the agricultural sector must not be organized on innovative basis, since the creation of innovation clusters will ensure the effective system of distribution of new knowledge, innovation and technology; the formation of steady ties among the cluster participants and put into practice mechanisms for converting innovations that will ensure the competitive benefits, increase access to information resources and will promote innovation in the enterprises of the agricultural sector.

The relationship between the formation of cluster associations and enhancing the competitiveness of the agricultural sector is causal in nature, which enables to state about the expansion of clusters' instruments of improving competitiveness of the agricultural sector by creating clusters that promote innovative entrepreneurship and strengthen the market position of the domestic agricultural producers. For further effective development of Ukraine's economy on the cluster basis, in particular of the agricultural sector, it is necessary to provide adequate support from the state. First, it is necessary to improve the existing legislative regulatory basis for coordinating clusters' activity. It necessary to create appropriate programs of development and support of agricultural clusters on the state level, develop the effective mechanism of cooperation of the research and production sectors which will promote the competitiveness of this branch.

References:

1. Porter M. Competitiveness / M. Porter. [transl. from Engl.] — M.: Publishing house «Williams», 2006. — 608 p.
2. Sabluk P.T. Clustering as a mechanism of enhancing competitiveness and social vector of the agrarian economy / P. T. Sabluk, M. F. Kropyvko // *Economika AIC* №1, 2010 — P.3–12.
3. The concept of clusters creation in Ukraine from 29.08.2008. Ministry of economy of Ukraine [e-resource]. — available at : <http://www.me.gov.ua/control/uk/>.
4. Ulianchenko O. V. Enhancing the competitiveness of the agrarian sector of economy of Ukraine on the cluster basis // *Visnyk agrarnoi nauki*. — 2010. — №10 — C. 56–59.
5. Borisova I. S. Organization of agricultural clustering of enterprises and territories / I. S. Borosova // *Poltava agrarian academy*. — 2011. — № 2. — P. 45–52.

6. Sirenko N. M. managing the strategy of the innovatibe development of the agrarian sector of Ukraine's economy: [monograph] — Mykolaiv, 2010. — 416 p.

7. Kyrylov Y. E. Clusters as a tool of enhancing competitiveness of the national economy in globalization — [e-resource]. — available at: <http://www.economy.nayka.com.ua/>

8. Sirenko N. M. Development of innovative entrepreneurship in the agrarian sector of Ukraine's economy : monograph / N. M. Sirenko, O. I. Melnyk. — Mykolaiv, 2016. — 243 p.