## ENHANCING OF INNOVATION AND INVESTMENT ACTIVITY IN THE AGRIBUSINESS UNDER THE CLUSTER APPROACH

<u>Problem definition</u>. The economic growth of the agribusiness depends on the level of the innovation development and the interaction between the public authorities, investors, science and business. To enhance the innovation and investment activity in the agribusiness are urgently needed new organizational forms, approaches and developments. The existing innovative organizational models of agribusiness development include clusters which represent the acceptable structure of the interaction and provide a transition from the direct interference of the public authorities to the management by means of the indirect incentives.

The clusters increase the labor productivity, accelerate the rates of innovation introduction in industries, promote the competitiveness of the various sectors of the economy, do not require the significant resources and are consisted of the variety of initiatives aimed at the encouraging of the participants to cooperate. One of the advantages of the cluster strategies is their low cost and high payback compared to the other government measures aimed at the development of the agribusiness.

<u>Analysis of the latest works and publications.</u> The analysis of the works of Ukrainian and foreign scholars (V. Heiets, M. Voinarenko, S.Sokolenko, V. Price, T.Wiurtenberger, M.Porter, L.Pullola, H.Srepler, J.-L.Poje and others) speaks about the intensification of the research of the issues concerning the application of the cluster approach for the enhancing of the investment-innovation activity in the different sectors of economy. At the same time the consideration of the scientific publications shows the insufficient study of the possibility of the investment-innovation activity enhancing in the agribusiness under the cluster approach.

**Formulation of the problem.** The objective of the paper is to consider the possibilities of the investment-innovation activity enhancing in the agribusiness under the cluster approach and define the factors which negatively influence on the agro-industrial clusters formation, study their basic characteristics, the combination of which can define the choice of the certain cluster strategy.

<u>The basic material statement</u>. In the world practice, the different ways of the innovation and investment activity enhancing are used: the formation of the developed innovation infrastructure (technology parks, business - incubators, innovation and venture capital funds), creating of the network of technology transfer, direct and indirect financial support for the innovative projects, the cluster approach [10].

The domestic and international practice of the agribusiness development shows that one of the effective ways to intensify the innovation and investment activity is the cluster approach. The powerful agribusiness enterprises, being on the top rung of the economic hierarchy in the agricultural sector have the considerable intellectual potential to solve the variety of economic and scientific - technical problems and therefore hardly show interest to the innovative research proposals and developments [4].

The review of the scientific publications shows that the domestic scientists outline the concept of " cluster " based on the Western theoretical developments, at that in the different variations suggest the classic definition of M.Porter, the platform of which is the theory of the competitive advantages of the industry, region, country: "cluster" - is a combination of enterprises and institutions for which the territorial commonness of its components - is an additional factor of economic efficiency increasing through the sustainability of the relationships, reducing of the transport costs, efficient use of all local resources, enabling the combination of the territorial planning and management [5, p. 298].

He recognized specialist in the cluster approach, the Austrian economist Wolfgang Price believes that for the implementation of the cluster approach does the additional financial resources are not needed, using the internal potential of the region, clusters can potentially become an integral part of the innovation policy of socio-economic development [7, p. 24–25].

The cluster approach is closely connected with the increase of the agribusiness competitiveness, not only because it affects both on the basics of the competitiveness (productivity and employment), but also because it removes the contradiction between them. The level of the labor productivity in the cluster increases through specialization and outsourcing of the non-core activities, the level of employment - by attracting and forming of the new economic actors in the related and supporting industries and fields [4].

Assessing the significant contribution of the economists [1-12] in the development of the theoretical postulates of the cluster approach, it should be noted that the key principles of the cluster organization in the European version, such as complementarities of activities, support, trust in relationships, sharing information and experience, work on the final product of the majority of independent entities are not sufficiently connected by the economic science with the opposite ones, the concepts of independence businesses, competition, "trade secrets", the desire of companies to maximize their own profits and market leadership, really existing in the national economic practice. Any cluster system as a form of entities organization initially involves the certain restrictions of independence in the actions of participants of the system with the

compulsory consideration of their mutual interests and opportunities. The presence of the diverse factors of the entities functioning in the current context is considered by the economic science as a paradox of development. Firstly, this is the relationship of the dependence and independence of each entity.

The prevailing view that the greatest success is possible only under the maximum independence, now is changed to the "understanding of the fact that it is required to make advances to the depending on the effective partners, the sources of the scientific - technical and marketing information", etc [9, p. 92].

A possible solution of this paradox of development may be the association of the entities under the cluster approach, where "every entity is focused on their competitive advantages, which are maximum intensified inasmuch as the entity leaves in its own production only what it can do better than others, leaving the other areas to the partners where their advantages are undeniable [9, p. 92]". Under such approach the level of the partnership cooperation of the enterprises in the cluster sharply increases, the amount of cost and efforts for the competition significantly reduced. The innovation and investment activity is enhanced, the economic relations between the entities, authorities, science, partners and competitors and investors are improved. The potential cluster opportunities are opened to those entities which "quickly formed a strategic and tactical schemes of the common market behavior, which have built the reliable relationships with the most influential partners" [9], while deliberately giving part of their independence in return for the "higher earnings" [8].

The objective of the cluster creating is to provide the economic development and increase of competitiveness of the agricultural production or innovation services of its members at the markets. To create a cluster it is necessary to carry out the complex of economic, legal and humanitarian efforts, ensuring the certain basic conditions.

For the successful implementation and functioning of the clusters V.Price considers the availability of the following conditions [7]:

1. Organization of the Cluster Coordination Center, which has to direct its activity on the implementation of the cluster technology ideas, the search for the effective forms of interaction between the government, science, investors, businesses, the practical realization of the innovative projects, promotion of obtaining of grants under the absence of the institutional framework of clusters functioning.

2. Involvement of the representatives of the state and scientific institutions, heads of the agricultural enterprises, investors and others to the clusters.

3. Active information and consultation work which includes the round tables, conferences, presentations, investment forums, implementation of public opinion polls and others.

4. The scientific substantiation of the priorities of innovation and investment development on the basis of the cluster approach .

5. The introduction of the concessional lending of the socially significant innovation projects in the agribusiness, organization of the educational programs and intership, promotion of the cluster approach ideas in the mass media.

All of the mentioned measures, the main objective of which is to organize the effective agribusiness will directly influence on the strategic vector of its development and the economic behavior in the business environment agricultural production.

The process of the clusters' formation provides the various lines of relationships to enhance the innovation and investment activities, including:

- new producers coming from other industries, accelerate their development, encouraging the scientific research and providing the necessary resources for the implementation of the new and innovative strategies;

- there is a free exchange of information and the rapid spread of innovations by means of the suppliers or customers' channels who have contacts with the other competitive agro-industries:

- relationships within the cluster, are often unexpected and cause the emergence of the new areas of innovation, generating the entirely new opportunities;

- human resources and ideas form the new combinations.

Some researchers [1 p. 60] believe that the cluster organization of business entities reach their maximum development in 2020 - 2030 and then starts to decline.

Like any innovation introduced into the existing contours of the socio- economic environment, the cluster technologies in the process of implementation face with some difficulties and factors which negatively affect on the formation of the cluster approach for the development of agribusiness [2]:

- the absence of the large government support of the process of combining of agricultural enterprises into the clusters, especially at the early stages of the cluster creating;

- the isolation and the low level of cooperation and trust among the agricultural enterprises, state agencies, science and investors;

- diffidence in the cluster approach efficiency and mentality of managers who do not wish to engage in innovation and change relationships to find the new ways to organize business;

- the poor awareness of entrepreneurs about the nature of the cluster approach, the lack or poor dissemination of information about the positive results of the clusters in other regions and abroad;

- the lack of funds to implement the innovative investment projects based on the cluster approach, the unwillingness of entrepreneurs to take risks because of the uncertain conditions of the clusters, the lack of the regulations that stimulate and regulate their clusters;

- the weak motivation of entrepreneurs, investors, government and academic institutions to form clusters;

- the absence of active position concerning participating in clusters among the research institutions;

- the negative perception of agro-holdings which work on export, the idea of increasing the focus on meeting the domestic needs due to lack of availability of guarantees concerning the real, not potential demand for products.

According to statement of Heiets, the negative factors which prevent the spread of the cluster formations also include the "lack of normative basis of formation and functioning of the cluster forms of business doing and scientifically substantiated and practically proven methods for measuring the results of their activity" [3].

Under the current legislation of Ukraine legally clusters can act as the associations without full right of implementation of business activities. Therefore, each of the existing clusters "work on their individual organizational and financial schemes at the risk and learn from own mistakes" [6]. It follows that it is illegally to expect the cost-effectiveness of the social organization, which is an economic entity which can be found in several scientific publications [2]. It is proved by the global and local practice that the cluster approach facilitates the development of each of its members and it is advisable to rely on the integral indicator of the effectiveness of the cluster.

Researchers from the Stockholm Centre for Strategy and Competitiveness note that in the countries with the transitive economies the authorities take more passive position on the initiation processes of clusters development: the cluster approach is used 2 times less than in the developed countries [12].

To bridge the gap and meet the minds the considered factors the certain measures should be developed and implemented, allowing the entities to see the real benefits in the future likewise the economic feasibility of participation in the clusters are equalized with the separate and independent functioning in the future. The formation of the regional and sectoral programs of the innovation and investment development of agribusiness to ensure the coordinated activity of the government, investors, business and science – is the main task of the cluster approach of agribusiness

Enhancing of innovation and investment activity in the agribusiness on the basis of the cluster approach should be based on the following principles:

- innovativeness of activity resulting from the ratio of the internal competition and cooperation of the members of the cluster;

- the presence of the clear objectives in the form of the new competitive products and services at the domestic and international markets;

- trust and complementarity between the participants of the cluster;

- possibility of the cluster to defend effectively their interests in the relationships with the public authorities;

- collegiality and flexible forms of management;

- sustainable and stable innovative investment development of the each member of the cluster;

- sense of the legal protection for the each member of the cluster from the unfavourable external influences (which include the competitive pressure of the large agribusiness, regulating actions sideways the authorities, etc.);

- simplified access to the credit and investment resources (investors and banks with the greater confidence treat clusters than each participant separately);

- favorable innovation and investment climate.

One of the priority tasks of the cluster association can be the activization of the mechanism of innovation and investment self-development of business based on the internal potential possibilities of the cluster approach.

Participants of the cluster creates a coordinating center which includes the representatives of the public authorities, science, investors, agribusiness, financial institutions, the coordinating center acquires the status of the NGO.

The functions of the coordinating center is the collective management of the development of the newly established association, representation of the interests of the cluster at the regional and national levels, its presentation in the mass media. The forms management of the coordinating center must be flexible and be advisory in nature for all members of the cluster to achieve the common strategic objectives.

The unifying core which promotes thee agricultural cluster to acquire the structural shape, is the block of the legal protection which should be represented by the lawyers, auditors, which should provide the legal support of business and innovation and investment activity of the each member of the cluster in its relations with the regional and local authorities, controlling authorities, banks, foreign investors and partners.

The strategic objective of this block of agro-industrial cluster is the manufacturing of the world-class competitive products. This block includes many specialized small agricultural companies which provide the functions of suppliers of the raw materials, components, realize the products, maintain the production, etc. The

formal cluster contours do not limit the development of the each member of the cluster, their additional manufacturing capabilities can be implemented with the external partners, which are considered as a stimulating factor to improve their economic activities on the innovation basis of innovation in collaboration with the scientific - research sectors of the cluster.

Innovativeness of the agribusiness cluster is provided by the scientific - research station or institute of the appropriate agro-industrial profile.

The financial achievements of the each participant of agribusiness cluster depend on the correctness of the chosen economic, innovation and investment and marketing strategy. Studying of the trends of the agricultural products movement at the domestic and foreign markets, active measures to gain the market segments can be provided by the specialists from the research centers and universities.

Under support of the public authorities on the basis of the educational institutions and research centers should be the professional staff training, retraining and advanced training of the senior staff members for the respective areas of the innovation and investment agribusiness cluster.

The presence and the direct involvement of the financial institutions and investment or venture capital funds in the agricultural cluster is a necessary condition for the viability of such an association.

Thus, by means of the joint efforts of all participants of the agro-industrial cluster the innovation fund of development can be formed, the costs of which will be used for the certain innovative activities, particularly in the training, retraining, advanced training of employees of agricultural enterprises, rendering of loans for the members of the cluster under these conditions.

Innovation Fund management should be made collectively.

One of the sources of the fund donations may be the participants at the level of 3.4% of allocations from the obtained profit, they are not imposed by the taxes. Each participant will be entitled by the "financial veto" within the funds, calculated by them into the Innovation Fund.

The Innovation Fund may also serve as a warranty provision in the traditional lending of the cluster members. The Innovation Fund costs can be sent on patenting, inventions certification, support of the composite authors concerning the speeding-up of the promising innovation developments of strain renovation, bringing the experimental models to the serial level, organization of exhibitions of innovative products and innovative projects ready-to introduction, conducting of marketing activities.

Such organization of the innovation and investment activity enhancing in the agribusiness on the basis of the cluster approach will be an important unifying factor for all of its members forming a new type of the relationships between them in a spirit of cooperation, considering the common and private interests.

Unfortunately, low initiative at the level of the agricultural enterprises in cluster formation under the current context, is impossible under the following reasons:

1. for the successful implementation of the large-scale innovation and investment projects the funds in sufficient amounts are needed with their random distribution according to the stages of development of the project activities.

2. the owners of the successful agricultural companies will not invest their own funds into the organization of the dubious innovative projects which do not guarantee them economic benefits in the short term.

3. small and medium agro-industrial enterprises with low profitability does not have the authority and resources available for the organization of the clusters.

4. clusters as an organizational economic structure is not defined in the Ukrainian legislation, and can function in the status of public organizations, the business activity of which is substantially limited.

5. low cluster initiative requires a great deal of information and educational training for studying of cluster technologies for the managers of the agricultural enterprises. Such measures are time consuming, require organizational efforts and costs and not included in the future plans for the development of the agro-industries. Therefore, under the present conditions of incomplete formation of market innovation and investment mechanisms and cultural interaction, the state remains the only effective initiator and leader of innovative projects in the agribusiness based on the cluster approach.

Now borrowing of the successful cluster strategies is considered as a means of intensification of innovation and investment activity in the agribusiness. Based on the experience of the third-party, the government agencies of all levels are trying to emulate the success of the well-known "best practices clustering", which eventually leads to the formation of the similar tasks and instruments. Thus, among the most pressing problems facing the developers of the cluster strategy is the dilemma of the so-called "best practices" (eg, benchmarking) [11].

<u>Conclusion.</u> In fact, today in Ukraine there is an attempt to create conditions for the development of agro-industrial clusters. However, most strategies of the innovation and investment activity in the agribusiness based on the cluster approach may well remain just words.

The cluster strategies in the agribusiness may include: clear differentiation of the powers between the sectoral and regional authorities in the sphere of implementation of the cluster strategy, the formation of a clear and consistent position of the Agriculture Ministry concerning clusters and cluster strategies in the agribusiness, inter-sectoral, inter-territorial, inter-agency coordination; the formation of preconditions for more active, informed and impartial stimulating of the cluster development, the creation of the most common

structural preconditions (legal, socio-cultural, infrastructure, etc.) for the development of a competitive environment and clusters, improving skills of the authorities.

The instrument of the cluster strategies conducting in the agribusiness have become the innovative investment development strategy, developed with the active participation of the key stakeholders – the members of the cluster. Such strategies will enable us to implement the cluster approach on an "umbrella" policy principle to achieve the common objectives – high innovativeness, profitability, productivity and employment, underlying the competitiveness of the agribusiness and the quality of life in the rural areas.

Thus, the cluster approach may be the more effective new instrument for promotion of the innovative and investment activity and its diversification in the agribusiness, but also qualitatively new version of the agrarian policy.

However, the model of the organization of innovation and investment activity in the agribusiness based on the cluster approach should be constantly adapted and adjusted in accordance with the challenges and demands of the environment. F. Hayek, the Nobel laureate in economics, said that "all social and economic models are just a benchmark which can be used in specific time limits with the conditional degree of reliability". That is, in the process of realization this organizational model will inevitably be subjected to the correction and clarification.

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## Fedun I.L. ENHANCING OF INNOVATION AND INVESTMENT ACTIVITY IN THE AGRIBUSINESS UNDER THE CLUSTER APPROACH

**Purpose.** The aim of the article is to examine the possibilities of intensification of innovation and investment activity in agricultural production on the basis of the cluster approach and determination of factors that negatively affect on the formation of agricultural clusters, the study of their main characteristics, the combination of which can determine the choice of a particular cluster strategy.

**Methodology of research**. The following general scientific methods were used in the research process, including: methods of theoretical generalization – to study the theoretical foundations and existing concepts of innovation and investment activity in agricultural production on the platform of the cluster approach; systematic approach – to substantiate the innovative organizational models of the development of

agricultural production; methods of analysis and synthesis – to identify the competitive advantages of cluster strategies that contribute to the competitiveness of agrarian economy.

**Findings.** Expediency and directions of creation the clusters in agricultural production to improve competitiveness of agricultural enterprises and their products have been substantiated. Priority tasks of cluster associations have been defined. The strategic aim of agricultural cluster, which is based on the production of competitive products of the world level, has been formed. The constituent elements of cluster strategy in agricultural production have been characterized.

**Originality.** The integrated approach to the substantiation of the directions of intensification of innovation and investment activity in agricultural production on the platform of the cluster approach was used.

**Practical value.** The obtained results of research directed to solving the problem of innovation and investment maintenance of enterprise activity of agricultural production. They can be used in the process of formation of agricultural clusters.

Key words: agricultural production, innovation and investment activity, clusters, effectiveness, competitiveness.