



Development of Agro-Industrial Integration as a Vector of Formation Competitiveness of Small Enterprises

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Abstract

The article substantiates the conceptual principles and advantages of creating clusters for the development of the agro-industrial complex of the district, identifies promising areas for studying this problem. A SWOT-analysis of agricultural enterprises in the Donetsk region was conducted, the strengths and weaknesses of the internal and external environment that directly affect their activities were identified. Based on the study, it is concluded that the application of a cluster approach can be an effective means of increasing the competitiveness, innovation, and investment attractiveness of agribusiness.

Keywords: use of land resources; strategy; internal and external environmental factors; SWOT analysis.

Introduction

The economic crisis and political instability in Ukraine have harmed all sectors of the domestic economy, leading to a decrease in macro- and micro-indicators, a decline in economic development, and a deterioration in the social and environmental situation. Today, many companies in various sectors of the economy have stopped or limited their activities and are on the verge of survival. Due to historical traditions and climatic conditions, the agro-industrial sector remains one of the largest. At the same time, medium and small agro-industrial enterprises are not able to provide the population of Ukraine with quality and inexpensive domestic food products in the required volumes. The basis for sustainable economic development, as shown by the calculations of individual indicators of production efficiency, can only be large agro-industrial integration associations that can ensure food security.

At the beginning of the XXI century in Ukraine, new agro-industrial structures of the holding type began to form, and a phenomenon such as clusters reflecting the integration which processes are taken place in the agro-industrial sector emerged. Political, economic, and institutional changes in recent years in the country have contributed to the creation of conditions and given impetus to the revival, formation, and development of integrated agro-industrial formations. Legislatively and organizationally these processes have not been regulated yet. For the functioning of different types of integrated agro-industrial formations with the effective operation of small and medium-sized agribusiness requires the creation of a stable external and internal environment. That is, it is advisable to create and support the proportional development of all types of enterprises and formations in agriculture, understanding the essence of the basic concepts that characterize the processes taking place. The problem of agro-industrial integration remains underdeveloped, despite many scientific studies on this topic.

The article aims to study the features of agro-industrial integration, which becomes particularly relevant as the basis of the system and security mechanisms, and on this basis to create its model in the transformation of Ukraine's economy taking into account factors and motives, levels of formation, participants, and ways of creating integration formations.

Literature

Theoretical, methodological, and applied aspects of improving the economic relations of participants in integration processes are reflected in the scientific works of well-known Ukrainian economists: V. Andriychuk, V. Ambroso, P. Haidutsky, O. Zakharchuk, V. Zinovchuk, M. Lobas, I. Lukinov, V. Mesel-Veselyak, O. Onyschenko, P. Sabluk, D. Sainsky, M. Sakhatsky, S. Sokolenko, E. Khodakivsky, O. Shpychak, V. Yurchyshyn and others.

Results and Discussion

Ukraine has a strong agricultural potential, which is the basis for the development of a strategic sector of the national economy. Rational use of this potential will allow not only to fully ensure the food security of our country but also to turn Ukraine into one of the most important players in the world agricultural market. The Ukrainian market of grain products is export-oriented. About 2/3 of the gross wheat harvest is exported, and corn and even more - about 3/4. [1].



The main obstacles in the way of Ukrainian exporters of agricultural products are its low quality, which does not meet European and international quality standards, low rates of technical and technological renewal of production, and the existing problem in ensuring the storage of products during the marketing year. One of the ways to solve this problem is the implementation of agro-integration using a cluster model, which has significant potential in crop production and can become a strategic basis for the development of the agricultural sector in Ukraine. The essence of the formation of the grain cluster is to unite the efforts of related enterprises, financial, research, educational, trade structures, and government agencies to ensure the production and sale of grain products that meet international standards. At the same time, the members of the cluster association retain economic independence, while receiving additional synergistic benefits from the coordination of actions aimed at improving the efficiency of each enterprise-member of the cluster.

The experience of developed countries shows that the cluster approach is the basis for dialogue between representatives of science, business, and government institutions and allows them to increase the effectiveness of their interaction in the field of innovation. A distinctive feature of the cluster is its innovative orientation, so successful clusters are formed where a breakthrough in the field of machinery and production technologies is carried out or expected, with further stabilization of the sales system and entry into new markets.

Effective clusters are formed based on regional features, which become sources of competitive advantage. Donetsk region has real opportunities for the formation of a grain cluster. This is due to the favorable soil and climatic conditions for growing quality grain, as well as special historical, geographical, and other factors inherent in the region. On the territory of the region, there is access to the necessary resources; there are specialized competitive related industries for grain processing and supply of resources, agrochemical service, nurseries; qualified staff, developed infrastructure for training and R&D, etc. This ensures the complementarity of activities (to meet demand, marketing, procurement), thus improving the quality and efficiency of work

The integration of agriculture on the ground is an important trend in the development of the modern world agricultural sector, an important factor in strengthening its economy, as evidenced by the experience of China, Japan, and many other countries in the Asia-Pacific region [4, p.55]. Therefore, the issue of deepening integration processes in rural areas through the creation of various market structures must be constantly paid special attention.

At present, the integration processes in the agro-industrial complex of Ukraine are a natural trend and are important for its further development.

Understanding the essence of agro-industrial integration is not possible without disclosing the content of the conceptually categorical apparatus of this concept.

Therefore, before applying the process of agro-industrial integration in practice, it is necessary to reveal the concept of "agro-industrial integration".

There are several approaches to the interpretation of the definition of agro-industrial integration.

The analysis showed that agro-industrial integration means an organizational combination of agricultural and technologically related industrial production, to obtain the final product from agricultural raw materials and achieve greater economic benefits [2].

These processes are developing in an ascending line: from the technology of obtaining, processing, and bringing to the consumer products of agricultural origin and ending with the emergence and formation of certain production structures of agro-industrial production [2].

In our opinion, agro-industrial integration is a dynamic phenomenon. Yes, the composition and size of the integration formation may change: new participants, partners, buyers will appear. The ultimate goal of agro-industrial integration, in addition to the well-known synergetic effect, is also to obtain an equal distribution of profits among all participants in integration.

Agro-industrial integration is vertical integration, as it combines all areas of agro-industrial production. Cooperation is a horizontal form of integration, as it usually unites enterprises engaged in the same type of activity or engaged in one area of agriculture.

Thus, the most common forms of agro-industrial integration are:

- Contract production of agricultural products for trade and processing enterprises following the concluded agreements [3];
- Agro-industrial enterprises and agro-firms, production agro-industrial associations, scientific-production associations [3; 5];
- Associations and corporations [6];
- Agricultural holdings [7];
- Financial-industrial groups [8];
- Farmers' cooperatives, food industry enterprises, meat trusts, large trading companies [9];
- Cooperatives and clusters [10].

In our opinion, the best form of integration is a cluster. It is the cluster principles of integration that expand the boundaries and possibilities of the integration process itself. The members of such an association, on the one hand, interact with

each other; on the other hand, they maintain competitive relations. The cluster provides regional development on a scientific basis: it combines the interaction of all spheres of agro-industrial production, government institutions, and science. It is a form of territorially sectoral equal association of enterprises, which provides innovative and competitive development of the region. Being located close to each other, companies can establish information exchange and achieve collective benefits that cannot be obtained by each company individually. The cluster model facilitates cooperation to solve common problems and obstacles to development. This can be done directly through the creation of industry associations, or indirectly through the formation of local legislation. Even if there may be competition among the enterprises of the cluster, some cooperation (such as in industry training) is mutually beneficial. Common goals and geographical concentration lead to the development of specialized institutions and associations within the cluster.

In the Oleksandrivka district of the Donetsk region, it is possible to organize a milk - grain cluster by a voluntary association of profile enterprises of this region and other enterprises wishing to join it. Figure 1. shows the largest agricultural societies of Alexander district.

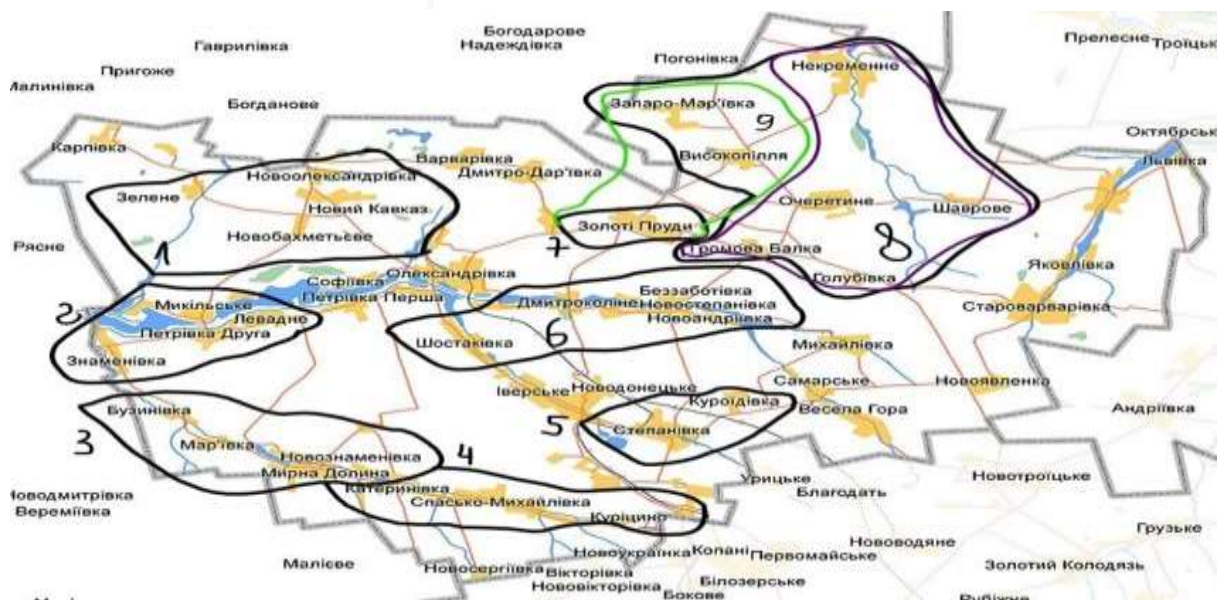


Fig.1. Karta Oleksandrivskoho Raionu

1. LLC “Loschanske” (livestock and crop production)
2. LLC “Petrivske”
3. LLC “Donbass”
4. LLC “Lighthouse”
5. LLC “Svitoch”
6. LLC “Alexandrovka-AGRO”
7. STOV “Golden Ponds”
8. LLC “Lactus”
9. LLC “Paradise”



In the Oleksandrivka district, there are sufficient preconditions and there are all the necessary participants for the creation and development of a dairy - grain cluster. However, a necessary condition for the development of the industry is to ensure a stable supply of raw materials, which can be achieved by merging small farms into larger ones. One of the stages in the formation of a grain cluster is the creation of its clear organizational structure.

The most complete problems of the dairy - grain subcomplex of Oleksandrivka district and the directions of their overcoming can be revealed using the method of SWOT-analysis. The results of the selection of the most important factors of influence are presented in the table.

Table 1: Results of SWOT-analysis of milk-grain subcomplex Oleksandrivka district

<i>Group of factors</i>	Content of key influencing factors	Grain-oriented enterprises of the district	Enterprises with dairy specialization	Influence of factors on clustering of enterprises
Strengths	High level of soil quality	+	-	The level of soil quality will be preserved as much as possible with the possibility of crop rotations and regular application of organic fertilizers.
	Development of financial and transport infrastructure;	+	+	The development of transport infrastructure will ensure proximity to sales channels.
	Support and promotion of agro-industrial complex by state, regional and local bodies.	+	+	State and local support programs for small farmers will provide additional investment for product development.
	The economic development of the district	+	+	USAID «Agricultural and Rural Development Support Program»
Weaknesses	Product quality does not meet international standards	+	+	Combining and consolidating production processes will attract both additional financial resources for development and create large batches of standardized products.
	Low level of innovative development of enterprises;			The merger will increase the number of automated and mechanized product lines.
	High level of depreciation of fixed assets of enterprises.			The merger will reduce the burden on fixed assets, thereby increasing the economic security of each enterprise.
Opportunities	Own processing enterprise	+	+	It will provide an opportunity to save on processing of products by other enterprises.
	Creation of effective interrelations of the organization of a subcomplex with other subjects of managing of the economic system thanks to the formation of a cluster.	+	+	Due to the involvement of new technologies and production cooperation to take a leading position in the industry
	Increase in domestic capacity	+	+	With the help of land resources, a strong MTB, new technologies, you can effectively grow the most profitable crops.



	Development of the complex at the expense of financing from the local budget and attracted funds of private investors	+	+	The investment will allow purchasing new varieties of plants and animal breeds with a high genetic potential 2. Production of promising agricultural products (production of environmentally friendly products).
Threats	Further aging of fixed assets of enterprises and reduced production efficiency;	+	+	The members of the association will be able to update fixed assets, thereby reducing the cost of their manufactured products.
	Loss of market position in conditions of fierce competition	+	+	It will help strengthen the market position, as product quality, will increase.
	Increased costs due to inefficient interaction of agricultural producers with consumers of their goods.	+	+	Each of the members of the association will be able to fully identify the needs of consumers and meet them.

Developing a model of a grain cluster, we concluded that the first advantage of such cooperation in terms of livestock in the enterprises of the district (LLC "Loschanske" and LLC "Golden Ponds") will be the provision of enterprises

specializing only in crop production (LLC "Donbass", LLC "Lighthouse", LLC "Olexandrovka - Agro", LLC "Lakstus") with organic fertilizers.

The classification of organic fertilizers is diverse, and as a consequence, their value is diverse. The most common organic manure in the country is pig and cow manure, but cattle manure has some advantages. Mullein is a fertilizer to which most farmers respond positively. Mullein fertilizer is very convenient because it saturates the soil with both organic and mineral substances. However, mullein feeding should be done wisely - mistakes can cost unripe fruit, burnt roots, and unprepared for winter shrubs.

This type of fertilizer contains almost all the nutrients that plants need for growth, development, and fruiting. These include the following macronutrients:

1. Nitrogen;
2. Phosphorus;
3. Potassium;
4. Calcium;
5. Magnesium;
6. Sulfur.

Also in the mullein found trace elements: cobalt, iron, copper, molybdenum, boron, and zinc. One ton of manure introduced into the soil enriches it with 4.5-5 kg of nitrogen, 2-2.5 kg of phosphorus, and 5-6 kg of potassium.

With the creation of a cluster, each of the members of the cluster receives a focus on a specific economic result, which relates to two components:

Firstly, the development of the grain cluster should be aimed at improving the economic situation and prospects of cluster members, and secondly, the members of the grain cluster should receive benefits that they will not be able to achieve on their own. When merging into a cluster, enterprises should aim to achieve the specific economic benefits of such a merger, and not just by merging to obtain and share information.

Cluster support should include not only finding new market opportunities but also providing the assistance needed to restructure the organization of dairy cluster production to be able to respond on time to market needs in the right quantitative and qualitative ratio.

Thus, the combination of all components of the production process - from suppliers of raw materials to the final consumer - makes it possible to ensure a constant load of dairy clusters, reduce production costs, while increasing its competitiveness.

Creating a cluster in Oleksandrivka district will increase the level of competition in the domestic market and intensify the foreign economic activity of enterprises that are members of the cluster along with generally accepted measures to intensify agricultural production, namely improving livestock production processes, optimizing feed structure, increasing productivity and average daily growth of animals, the development of selection, improving product quality and market infrastructure development.

We highlight the following main measures to promote the development of the regional cluster of the agricultural sector:

improving the regulatory framework for state support of enterprises in the agricultural sector targeted funding for clustering economic activities, drafting a package of documents corresponding to basic cluster models, and their organizational structures and regulating relations between managers and managed bodies.

It is necessary to develop and further develop the national strategy, programs for the development of competitiveness of regions and cluster participants, implement innovative educational programs for training and retraining, create national and regional competitiveness councils that will coordinate the development and implementation of agro-industrial cluster programs. to promote the development of international cluster cooperation at the global level of the socio-economic system; create all the necessary conditions to attract investment.

Thus, the creation of clusters in various sectors of the economy is one of the ways to stimulate production, adapt agricultural enterprises to globalization, increase competition in the domestic market, and intensify foreign economic activity by enterprises that are members of the cluster.

In economics, the cluster organization for agricultural enterprises is reproduced through agrarian, social state policy. It requires the allocation of funds for programs for the development of agro-industrial and socio-economic areas, cluster priorities, and needs to group the efforts of bodies of different levels of government (local, regional, state) and production formations.

The analysis of production and economic activity of grain enterprises and previous agreements with the heads of some enterprises and banking structures testifies to the expediency of creating a cluster based on Oleksandrivka district (Figure 2).

The use of the cluster model of industrial development makes it possible to attract unused capital of enterprises and accelerate its circulation, accelerate the introduction of new technological processes, save costs and make optimal use of profits, save resources and effectively use existing or minimize unused production capacity, gain significant market share. unification of enterprises within the cluster with a narrower specialization (associations of producers of grain, flour, feed, etc.), which would further coordinate and support each other, to make optimal use of the attracted investments.

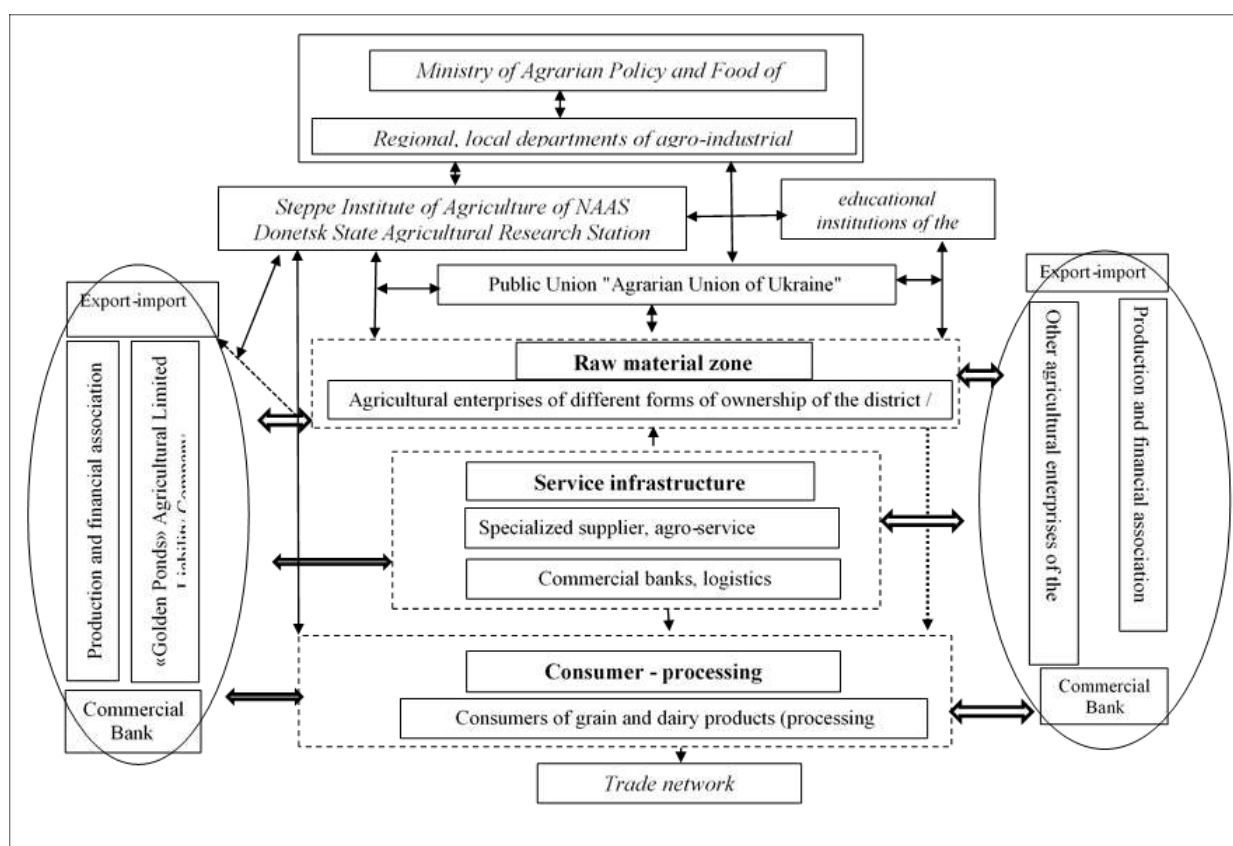


Fig.2. Cluster structure

Conclusion



Thus, the cluster approach to the management of the development of enterprises in the grain industry will allow:

- to create the necessary preconditions for the accelerated introduction of scientific and technological progress into production, ensuring the optimal production of homogeneous products of high quality;
- ensure rational proportions between the volumes of agricultural raw materials received and industrial processing capacities;
- provide a single reproduction process throughout the production cycle;
- reduce transaction costs (costs of conducting business transactions, negotiating, concluding contracts, ensuring their implementation).

The backwardness of agricultural production compared to industry, the seasonality of agricultural production, dependence on weather and climatic conditions, the spontaneity of the product market are the impetus for agro-industrial integration without exception in every country.

Investing in the process of processing and sale of agricultural products, in the modernization of agriculture, this is what a lot of capital is interested in, to adapt them to industrial enterprises.

Thus, each participant in the integration relations benefits from such an association, for example, agricultural enterprises enter into integration relations to reduce the risk associated with agricultural production, while processing and other agribusiness enterprises seek to ensure stable income due to the availability of a reliable raw material base or guaranteed sales of its products or services.

The process of deepening specialization, strengthening concentration and intensification, cooperation, and a combination of agricultural industries determines their combination with industrial enterprises and other sectors of the economy by increasing the level of development of machinery, machine technology, mass production.

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