The terms "specialized agrilogistics cooperative society" and "cooperative society with attendant agrilogistics activity" have been introduced and defined. The particular features of regional development of cooperative logistics in agribusiness of Ukraine and Dnipropetrovsk region have been studied. The forming factors of the cooperative model of providing agrilogistics in the system of stockpiling and distribution of primary milk products have been defined by the example of a particular region and classified by means of the SWOT-model. Priority directions of developing agribusiness logistics providing in a region through the system of serving cooperation have been generalized. The strategy of fiscal stimulation of development in alternative export-oriented cooperative logistics in agriculture of Ukrainian regions has been suggested.

Keywords: cooperative societies, logistics, agribusiness, region, SWOT-factors, development, priorities, corporations, alternative.
Механизм регулирования экономики

Ключевые слова: кооперативы, логистика, агробизнес, регион, SWOT-факторы, развитие, приоритеты, корпорации, альтернатива.

Agrarian logistics as well as all other types of business logistics may have rationalistic and providing character or their integrated manifestations [1]. Providing agrilogistics is directly focused on the study of different logistical formations (organizations, objects, canals, chains, networks and so on), connected with certain logistical operations (processes), which form the necessary conditions for running main directions of business at agrarian enterprises (meet the demand through production agricultural produce).

In the whole world the most widespread forms of performing agrarian activity are private-cooperative and farm-cooperative ones.

Two main models of logistical organization of agrarian business are based on them – corporate and cooperative. Meanwhile, corporate agrilogistics including consecutive stages of supply, provision and distribution are under control of one or several people, and in cooperative one they are controlled through democratic management and multi-personal equal co-ownership preferably on non-profit base. The purpose of the former is to maximize corporate financial results, the purpose of the latter is to minimize logistical expenses and to increase the profit for owners (members) of the cooperative society [2].

Research of the process of formation and development of cooperative logistics in agrarian sector of Ukrainian economy is an extremely actual and important scientific problem nowadays.

Studying different branch types of logistics is the subject of many researches carried out by foreign and domestic scientists. The development of this field is represented in the works by A. Gadvzhinskyi [3], J. S. Johnson, Y. Krikavsky, M. Christopher, R. Larina, T. Lepeyko, M. Ocklahander, V. Ponomarenko, V. Sergeyev, K. Tankov, O. Trydid, A. Harrison, N. Chukhray and others.

The particular problems of rationalistic or provisional agrarian logistics were studied by such scientists as A. Biere [4], A. Kelemis [5], T. Kosareva, I. Manikas [5], I. Smirnov, D. Foliinas [5] and others.

The features of organization and development of cooperative establishments in agribusiness were the focus of publications by V. Zinovchuk [6], N. Zinovchuk [6], M. Kisil, P. Makarenko, M. Malik, L. Moldovan, A. Panteleimonenko, P. Sabluk, I. Svinous [7], Y. Ushkarenko and others.

However, the studies which represent features and trends in development of logistics in the system of agrarian providing cooperation are scanty. Besides, the issue of defining and generalization of strengths and weaknesses, opportunities and threats in the spread of cooperative agrilogistics is insufficiently studied and systematized. Special attention should be paid to the search of sources for supporting development of this alternative logistical direction in contemporary Ukrainian agribusiness. Hence there is a real need for profound study of this problem.

The main purpose of the research is to specify the category apparatus in the system of cooperative agrilogistics and to systematize the factors of its formation, and to study the directions of development at the regional level.

The process of manufacturing (technological operations) and support of manufacturing (logistical operations) are fundamentally different business processes.

Technological operations are operations which contribute to qualitative transformation of labor subject. Logistical operations are operations which provide the availability of necessary subjects of labor in a certain amount, in a certain place and at a necessary time. Thus logistical operations are any operations which are performed by using material subjects and labor outputs in the sphere of manufacturing and circulation except for technological operation of producing material goods [3]. Main logistical processes are supply, stockpiling, provision of manufacturing and physical distribution.

Agriculture serving cooperative societies (ASCS) can be considered as a group of agricultural manufacturers with their own farms which decided to act together in areas where they cannot succeed working separately [6].

Hence the activity of agrimanufacturing and agroprocessing serving cooperative societies is directly connected with technological processes, providing, stockpiling-distributing, transportation and some other service cooperative societies in the system of supporting cooperation specialize in certain services of logistical provision of agribusiness, its members and subjects.

Multifunctional cooperative societies may be simultaneously connected with both technological and different logistical operations in agriculture [7].

It enables us to differentiate between the terms “specialized agrilogistical cooperative society” and “a cooperative society with attendant agrilogistic activity”.

A specialized agrilogistic cooperative is an agricultural serving cooperative society with main tasks of providing separate logistical process (processes) in activity of its members or other subjects of business activity.

A cooperative society with attendant agrilogistic activity is an agricultural serving or manufacturing cooperative society with one of the tasks of providing separate logistical process (processes) in activity of its members or other subjects of business activity.
In Ukraine nowadays the agricultural lands are owned by those people who gained the ownership as members of collective agricultural enterprises and social workers of villages or heirs to owners of shares. Their total number is almost 7 million people [8]. Among them only 27 thousand landowners, that is only 0.3 % are the members of serving cooperative societies. Meanwhile in most economically developed countries cooperative model of running a business is dominant.

The profit received from activity in agriculture is considered to be an important source of existence by only 12 % of villagers. The exception is only AR Crimea where this index is almost two times higher [9]. To a certain extent such exception is connected with the rural cooperative movement. Thus calculations based on the data by Agrarian Ministry [10] testify that the volume of share fund in the Crimean serving cooperative societies is 77 % of its total number in Ukraine. Besides compared with general Ukrainian indices ASCS of the AR Crimea takes the first place by the amount of stockpiled and sold fruit-vegetable production (25.4 %) and the number of occupied workers (16.7 %), and the second place by its share of basic assets (9.5 %).

On the 1st of January, 2013 in Ukraine there were only 885 agrarian serving cooperative societies [11]. Meanwhile, the development of a cooperative movement in Ukrainian village remains problematic that implies the presence of a major share of economically inactive ASCS.

The most dynamic type concerning cooperation societies is dairy agrilogistics. Cooperative societies with such specialization exist in almost all regions of Ukraine. Moreover in one third of regions the cooperative rural movement is connected with exclusively dairy business. In 48 % regions cooperative societies are also involved in logistics of gathering and distribution of grains, and in 36 % in fruit-vegetable production. The research shows that the important place in strengthening the economy of ASCS is occupied by a number the members which use its services. Hence, in Ukraine on average in case of increasing of share fund of agricultural serving cooperative society by 1.0 UAH the amount of logistics services increases only by 25.3 UAH, but with the usage of additional member of cooperative society this index increases by 2,074.0 UAH.

The development of logistics within the system of serving cooperation in Dnipropetrovsk region has certain features. The sphere of the working cooperative agrilogistics here is mainly represented by specialized logistical cooperative societies (stockpiling-distributing, separate multifunctional and service and other cooperative societies) (Fig. 1).

Specific weight of such cooperative societies among ASCS is about 80 %. Meanwhile the survey of 323 heads of rural and village councils in the region in 2012 (generalized by the Steppe Survey of the Scientific Research Center of productivity in agrarian complex) testified the prospect of development exactly in the agricultural serving cooperative societies with specialized or attendant logistical activity. In the studied by the leaders of local communities the desired number of serving cooperative societies the share reaches over 90 %. Meantime there is the significant increase in specialized logistical cooperative societies (suppliers – from 0 up to 9 % and stockpiling-distribution – from 27 up to 39 %).

Furthermore, the pace of development in the regional cooperative movement is connected with the fact that economically active ASCS remains only in Pokrovskyi and Apostolivskyi regions, in 10 more regions logistical cooperative societies are registered but in fact they don’t work, in the other 10 regions they are completely absent.

The contemporary logistical activity of serving cooperative societies in Dnipropetrovsk region is mainly connected with stockpiling and distribution of initial dairy materials.

The research defined and classified the main SWOT factors in development of cooperative dairy logistics which are the most developed in the region (Fig. 2).
To a large extent the development of dairy cooperative societies in Pokrovskyi and Apostolivskyi regions was supported by a certain financial assistance from international donor organizations and funds of state and regional budgets.

The factor is surely important hence the results of survey identify the main limitation factor of development of cooperation in the region as lack of funds for creating and activity of cooperative societies, especially for purchasing of equipment and techniques as well as imperfect credit-fiscal politics towards ASCS. But an important problem in this case is absence of effective leaders and information about the advantages of cooperative activity.

Moreover, one of the important causing factors in development of dairy cooperation in rural areas inPokrovskyi and Apostolivskyi regions is uncomfortable logistics due to large remoteness from big processing markets of milk distribution compared to many other suburban areas of the region.

Nowadays retail markets of big cities provide the most favorable price conditions for selling dairy produce. Along with that Ukraine undertook a responsibility till 2015 before World Trade Organization concerning the ban to household beef cattle and sale of not gathered dairy products to customer and so on. Hence, in the near future this factor can stimulate active development of dairy and other cooperation and suburban areas of Dnipropetrovsk region.

Moreover the demand for initial dairy produce which is distributed through cooperative societies begins to increase also among processing factories of the region. Due to the features of forage base of rural enterprises their milk is more competitive by ecological indices than many big agricultural enterprises' one. All these factors as well as local surveys state the grounding of formation of local regional strategy in priority development of cooperative societies in the system of logistical stockpiling and distribution of initial dairy materials (Fig. 3).

The first steps in this direction are being made now. In such a way in 2012 in Pokrovskyi area of Dnipropetrovsk region the opening of the first in Ukraine Cooperative Educational Farm in the context of the project "Cooperative Educational Farm and Services" took place.

It is also prospective to form logistical processing mini-clusters of a cooperative type in dairy cattle breeding. Furthermore, real preconditions for it are formed in neighboring Apostolivskyi and Kryvorizkyi areas.

---

### Analytical SWOT-model of the regional development in cooperative logistics in the system of stockpiling and distribution of initial milk materials

(An example of Dnipropetrovsk region)

**OPPORTUNITIES**
- low probability of receiving a high portion of added value in the manufacturing logistical chain with cooperation;
- formation of logistical processing mini-clusters of a cooperative type;
- presence and action of state and regional programs of supporting cooperation;
- farness of most enterprises of the region from huge processing markets of milk distribution;
- necessity for realization of SWOT requirements concerning the ban of selling not gathered milk to a customer;
- informational and consulting support for development of cooperation in the region and so on

**STRENGTHS**
- a part of the Complex strategy of regional development;
- experience of creating cooperative societies in systems of logistics in stockpiling and distribution of milk;
- experience of co-work with international and domestic organizations which support the development of Ukrainian cooperative movement;
- presence of cooperative mini-farm of a family type in the region;
- high level of dairy competitiveness of members of cooperative societies by indices of quality and ecology;
- presence of regional cooperative association of small dairy producers and so on

**WEAKNESSES**
- a small number of economically active cooperative societies in the field of logistics system in stockpiling and distribution of milk;
- a low part of milk sold by population of the region through cooperative societies;
- economical in expediency of creating dairy cooperative societies on separate rural territories;
- huge money consumption of cooperative logistical processing miniclusters;
- limited availability to investment and cheap credit resources;
- absence of credit agrarian cooperation in the region;
- low level of team-building in activity of the members of logistical cooperative societies;
- difficulties in cooperative management and so on

**THREATS**
- limited abilities concerning external financial support for development of logistics in the system of stockpiling and distribution of milk;
- difficulties in providing the reliability in stockpiling and supply of contract amounts of initial milk materials for the processing factory;
- difficulties in engaging profitable number of cooperative members for stockpiling and distribution of milk on certain rural areas of the region;
- spreading the psychology of sole ownership and high level of distrust to cooperation on the region territory;
- widespread identification of cooperative societies with former collective farms and so on

**Intensify**

**Support**

**Strengthen**
Prospective development of corporate food agrilogistics in the region requires government support in building and transformation through operative or financial leasing of cooperative logistical fruit-vegetable powers.

Nowadays Dnipropetrovsk region has the largest number of logistical elevator objects in the Steppe zone (2 – 3 elevators in each rural area) [12]. At the same time the development of cooperative establishments within the system of export-focused logistics of stockpiling and distribution of grains, due to shortage of powerful investment and limitation of the government support and high competitiveness of the private-corporate sector is still difficult though it is a rather prospective way of forming a cooperative-logistical model of agribusiness in the region.

The widespread interregional corporate establishments in the contemporary agricultural complex are agriholdings. In these organizations powerful massive agricultural production takes place as well as processing of initial agricultural materials owing to that they receive economical effect from the production scale and control over the logistical chain (storage, transportation, distribution and so on).

The enlargement of agrarian manufacturing to a large extent is caused by the attempts to use the advantages of effect from its scale. In practice it concerns both private-corporative and farmer-cooperative models of agribusiness. Along with that the real manifestation of such an effect is either debatable or limited due to disproportional increase of inputs for management, control, transportation and so on.

However, the decrease of level of constant expenses per unit of finished product is not the only and often not the main advantage of scale effect in agribusiness.

So, today middle levels of agricultural enterprises in Ukraine are among the highest in Europe and the rest of the world. But the main purpose of such enlargements is not achieving the larger economic effectiveness from a unit of agricultural product or limited resource (ha, unit and so on), but receiving the bigger amount of net profit and increase in abilities to use powerful investment resources.

Furthermore, main investments into agrarian sector of economy are made at the level of big agricultural holdings. Big agrarian companies in the search for relatively cheap and powerful investment resources have the opportunity to enter the global financial markets and receive funding not only through issuing and selling own securities but also through bank crediting. In Ukrainian banks interest rate on such credits is twice or thrice overstated.

According to the American researcher B. Johnson corporate agrarian business more likely strengthens rural economy than weakens. But the ability of corporate rural enterprises to increase the effectiveness of agrarian economy without depopulation of rural local and degradation of village communities is doubtful [13].

Both small and middle-level farm-cooperative manufacturing and high private corporate agribusiness have the right to exist. However they must perform different functions. Owing to the former it is necessary to develop labor-consuming agribusiness, be the economical base for village communities, employ rural population, and support agricultural landscapes and so on. The task of the latter is to invest into export-focused big-scale production in plant growing and cattle breeding. Thus there can be correspondingly different regimes of taxation, export, government support[14].

Meanwhile the world experience upholds the need for developing both alternative system of export of agricultural produce which is based on cooperative measures. Taking the above-mentioned into account it is necessary to work on the fiscal strategy which would create the conditions for reasonable involvement by a corporate business in the system of agrarian export logistics of numerous cooperative joint ventures.

One of the most priority directions of the flexible tax regulation may become foreign trade operations with grains. Meantime carrying out agitrading activity with the help of logistical objects (elevators, transportation organizations and so on) which in the defined limits will be upon control of joint cooperative establishments, the government and traders must receive certain exemptions.

Such conditions will partly stimulate private-corporative businesses to investment participation in development of alternative export grain logistics in regions of Ukraine.

In theory of agricultural cooperation and providing logistics it is reasonable to use the terms “specialized agrilogistics cooperative society” and “cooperative society with attendant agrilogistics activity”. Their essence is worth connecting with measure of focusing on logistical provision of main activity for users of cooperative services. Moreover such agricultural serving cooperative societies are reasonable to be considered as a type of providers on the basic level of outside logistics.

The experience in ASCS functioning in Ukraine confirms direct relation of volume of logistical services and indirect relation of their price and number of members of a cooperative society which uses these services.

The strategic analysis of regional development within a cooperative model of agrilogistics providing is reasonable to be carried out using the SWOT-model. Meanwhile the study has defined that nowadays in Dnipropetrovsk region there are serious threats which increase the probability of manifesting weak factors and withhold development of cooperative dairy logistics in the region. Furthermore there are numerous strengths which to a certain extent uphold the existing prospective opportunities of forming the cooperative model of stockpiling and distribution of initial dairy materials.

At present stage priority approaches of regional development should be dairy and fruit-vegetable food logistics. In the long-term prospect development of export-focused grain cooperative logistics based on forming mixed agrilogistics providers is also necessary and actual.

Stimulation in development of alternative export-focused cooperative logistics of the regional agrarian complex of regions...
in Ukraine should be carried out through flexible application of special fiscal instruments in the system of agritrad ing activity.