

## EXPERIENCE OF AGRO-ASSOCIATIONS IN ECONOMICALLY DEVELOPED COUNTRIES

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Received 02 08 2023; Accepted 13 09 2023

### Abstract

Agricultural producers have a practical need for joint activities to realize their economic interests. The *relevance* of the study is caused by the fact that in order to develop effective economic tools for the development of integration in the agricultural complex of any country, it is necessary to study the foreign experience of its organization and functioning. The *purpose* of the article is to study best practices and systematize the main characteristic features of modern integration relations in the agro-sector of economically developed countries. This systematization gives an idea of a wide variety of forms of cooperation and areas of cooperative activity in the world practice and allows to opt for and adapt the most acceptable and effective management mechanisms for the conditions of a particular country. The findings of the study can be used in countries where there is not yet a fully developed cooperative sector in the agro-industrial production system.

**Keywords:** *agro-associations, integration, food market, foreign experience, models, tendencies, characteristics.*

**JEL Codes:** *F15, P13, Q13.*

### Introduction

Currently, large inter sectoral associations are rapidly forming in the world, especially in the system of production and marketing of agro-industrial products. This is done in order to maximize the use of production, regional and investment potential, as well as to create dominant conditions in the global food market. The interaction of industries on technology from the production of raw materials to its processing and marketing of finished food product within agro-associations accelerated their innovative development and allowed them to obtain high-quality food that meets the most diverse consumer demand.

The need for active inclusion into the globalization processes, the need to ensure constant innovation promotion give rise to new requirements for the organization of economic activity. Therefore, integration associations (agro-associations) are increasingly recognized in various countries. This form of production organization is able to mobilize various factors and resources to achieve the

desired targets of economic development. In addition, in a number of regions agro-associations are the main enterprises for the formation of local budgets and the development of social infrastructure (Gusakoff (2019); Gusakoff (2021)). It should be emphasized that the essence of the idea of creating and functioning of integration associations in the agricultural sector is to transform rural areas, agricultural production, processing and supply enterprises and related organizations and services into a closed organizational and economic system built along a special technological chain of product promotion. These circumstances determine the *relevance* of the study.

The *purpose* of the article is to study best practices and systematize the main characteristic features of modern integration relations in the agro-sector of economically developed countries. Specific *objectives* are to identify trends, models and success factors of agro-industrial integration in economically developed countries; to systematize a wide

variety of forms and directions of agro-associations, which allow to more clearly navigate when choosing their specific forms in domestic practice.

*Research methods:* comparative analysis of the main characteristics of integration associations in the agro-industrial sector of economically developed countries.

The findings of the study can be used in countries where there is not yet a fully developed cooperative sector in the agro-industrial system.

### **Trends of agro-industrial integration in economically developed countries**

Agricultural producers have a practical need for joint activities to realize their economic interests. The relevance of the study is caused by the fact that in order to develop effective economic tools for the development of integration in the agricultural complex of any country, it is necessary to study the foreign experience of its organization and functioning.

The analysis shows that almost all sectors of an agro-industrial complex of developed countries are dominated by large corporations and financial and industrial groups that control 40-80 % of national markets. The most widespread are the following *models of agro-industrial integration* (Hossard et al., 2022); Agriculture..., 2019):

- contractual system of relations between agricultural producers, processing, marketing and other organizations;
- agro-industrial formations created by combining the capital and labor of individuals and legal entities (corporations, cooperatives, etc.);
- combines, which represent the entire technological cycle from the production of agricultural products, its processing and to the sale to the final consumer;
- associations created without the formation of an additional legal entity, headed by an integrator firm that carries out relations with other participants on a contractual basis or by participating in the formation of their property;
- holding companies.

In economically developed countries various supply and marketing cooperatives have become widespread, cooperative associations for the processing and sale of agricultural products are effective, cooperatives for production supply and service are widely functioning, credit cooperatives are important, and production cooperatives engaged directly in the production and sale of agricultural products are functioning everywhere.

The study confirms that in most European countries, the predominant positions are occupied by associations operating at the junction of agriculture with related sectors of the economy – processing, supply, service, trade, etc. The main *success factors* in the context of structural changes are flexibility, prompt response to external and internal changes, rapid decision-making and a simplified creation procedure. Farmers' cooperatives play a significant role in this regard.

Over the past 20 years in the European Union (EU) cooperative relations between agricultural sectors, enterprises and contractors of the agro-industrial complex have acquired not only organizational stability, but also legal regulation. So, at present, almost all EU commodity producers – large or small – are members (and often shareholders) of specific production, supply, car service, consulting, professional and other associations. As a result, more than 60% of agricultural products are sold through cooperatives in 15 EU countries (Cooperatives..., 2023; Economic..., 2021; Frey, 2020; Frey, 2022; Kalaitzis, 2015; Mapping..., 2020).

The cooperative movement in the agro-industrial complex is the most developed in the Scandinavian countries. Cooperatives sell up to 80 % of their products on the domestic market. Only Japan surpasses this indicator, where more than 90 % of products are sold with the help of cooperatives. At the same time, it should be noted that in Japan, the predominant role in the implementation of integration processes is played by cooperative organizations, which are mainly engaged in supplying agricultural producers with means

of production, its marketing, lending; they provide social and household services to the population, processing of agricultural products, etc. Commercial and industrial companies often conclude contracts with cooperative organizations, and the latter – with peasant farms for a period of 1 to 6 years (Kaza, 2018).

In Germany, this figure is 50-55%. Large cooperative and joint-stock agricultural enterprises have become widespread in this country (Chiurciu et al., 2022; Moraru et al., 2008). In the United States of America (USA) and the United Kingdom (UK), the market isolation of commodity producers prevails (about 30%). In some cases, the processes of agro-industrial integration in the USA agriculture are strictly regulated at the state level, since the concentration of production has reached such an extent in the USA that about four largest firms in each industry dictate conditions to others (Integrated..., 2023).

In addition, in a number of developed countries, cooperatives provide processing and marketing of finished (marketable) agricultural products, provide the entire technological process – from, for example, grape cultivation to processing and branded trade. So, in Denmark, fur cooperatives produce and sell more than 90% of the country's furs. Also in Denmark, Finland, and Sweden, the cooperative sector supplies up to 50% of food industry products to the market (Copenhagen..., 2023; Co-operative..., 2023; Moraru, 2018).

In the overwhelming majority of developed countries, the sphere of cooperative activity almost entirely includes the processing of dairy products (The EU dairy sector (2018)). Also in many countries cooperatives occupy a high share in the processing of raw meat (Scandinavia) (Swedish..., 2022), cereals and legumes (Netherlands, France) (Bijman et al., 2012; Filippi, 2012), vegetables and fruits (Denmark, Belgium, Germany) (Belgian..., 2022; Hansen, 2020). Thus, processing cooperatives in Denmark and Germany, along with large meat processing plants and dairy plants, have a network of enterprises for the

processing and disposal of animal and poultry slaughtering waste, as well as the dairy industry.

The analysis confirms that cooperatives can withstand tough competition, because with the consolidation of economic opportunities, they ensure continuous improvement of the production base and technologies, achieve deep processing of agricultural raw materials and waste-free production, create a wide range of products for consumer demand, react sensitively to market conditions.

Recently, the cooperative movement abroad has been characterized by a tendency to *diversify its activities*. For example, procurement and supply cooperatives have become actively engaged in consulting services, functions of economic maintenance of farms, etc. Thus, in Germany, credit cooperatives simultaneously carry out sales and supply functions; in Sweden, supply cooperatives have large commercial warehouses and storage facilities, and process agricultural raw materials; in Finland, there is a central supply association of agricultural cooperation, which, along with supplying farmers with means of production, processes products and engages in consulting and construction activities, etc. (Frolova, 2010).

By processing and marketing agricultural products, supplying farmers with means of production, cooperatives ensure the creation of the latest infrastructure in the food sector, including high-tech transport and storage facilities. All deliveries are provided by specialized cooperative vehicles according to agreed schedules and routes. A well-equipped and organized warehouse facility not only allows to have guaranteed safety of the wrapped products, but also enables cooperatives to establish partnerships for the supply of products, as well as to carry out long-term business planning for the production and promotion of finished food to consumer markets.

The analysis shows that one of the promising areas of work of cooperatives is *production support and provision of various services to rural producers*.

Due to the diversification of activities, the accelerated development of agriculture has recently stimulated the progress of *cooperative services for rural producers*. Thus, in Germany, the joint use of agricultural machinery has become widespread, mainly within the framework of machine societies. The equipment is partly in the individual, partly in the collective ownership of the members of the association. There are about 45 thousand such societies in the country. Service cooperatives work closely with credit cooperatives in order to obtain funds for the purchase of new equipment. Production services in agriculture in Germany are provided by more than 1200 cooperatives.

The study gives grounds to assert that cooperative societies for the sharing of technology operate in most developed countries. Such cooperatives make it possible to achieve savings in labor and material costs, optimize the timing of agricultural work, prevent losses and improve the quality of the products received.

In addition to the collective use of agricultural machinery, cooperatives provide farmers with such production services as *material and technical maintenance of equipment, organization of a complex of reclamation works, consulting and information services*, etc. For example, agriculture in the USA has achieved full electrification only thanks to the so-called “electric cooperatives”.

A special place in the cooperative movement is occupied by *cooperative forms of credit services for rural producers* (USA, Germany, France). For example, the German Cooperative Union unites all cooperative banks, agricultural, commercial and service cooperatives (Credit..., 2023; Guinnane, 2001). Also, holding companies have recently become widespread in developed countries. There is no single special legislation on holdings in Germany, France, and the USA. The procedure for establishing and transforming companies, issuing securities, and distributing profits is determined by the law on industry. The merger of bank capital with industrial capital is carried out through

holding companies in the form of financial and industrial groups.

Thus, in countries with developed economies, agricultural cooperatives play an important socio-economic role, covering various areas of economic activity: production, processing and marketing of agricultural products, production supply and servicing of farmers, ensuring self-employment of rural population, providing jobs to specialists, sustainable development of rural communities. Agro-associations seek to take active positions in the field of forming economic ties between agriculture and related sectors of national economies. Modern agribusiness, outside of which agricultural cooperatives cannot objectively function, requires significant investments and the development of sufficiently aggressive competitive strategies, without which it is impossible to ensure the expansion of sales of agricultural products and a stable presence in the agricultural market.

### **Features of modern agro-associations**

Foreign experience shows that in the process of functioning of cooperation and integration in most economically developed countries there are a number of *characteristic features* (European..., 2023):

*3.1. According to the orientation of cooperation and its penetration into various fields of activity:*

industrial cooperation (East Germany, Czech Republic, Hungary);

production and sales cooperation implies that, along with the production of agricultural products as raw materials, agro-associations create their own enterprises for processing and marketing products (Germany, Slovakia);

service cooperation is an association of rural entrepreneurs to provide production cooperatives and any other agricultural enterprises with various kinds of services – consulting (farming), engineering, logistics, information, accounting, social, etc. (common in all developed countries of Europe);

supply cooperation is an association of rural commodity producers with industrial and other intermediary structures for the supply of agricultural enterprises of all types of material

and technical means and resources (takes place in the Scandinavian countries, Denmark, Holland, France, etc.).

### *3.2. By specialization:*

highly specialized agro–associations (cooperative associations engaged in strictly certain types of activities and not penetrating into other spheres);

diversified and multidirectional agro–associations are associations that initially, when created, are focused on a variety of types of management and, in the course of their functioning, engage in various types of activities as needed.

### *3.3. On the stability of functioning:*

agro–associations that have a well-established specialization and do not change their profile during their functioning;

agro–associations that do not have a distinct production direction and in the process of managing can engage in different operations.

### *3.4. On the limitation of activities:*

agro–associations that have a limited list of functions that does not change over a long period of time;

agro–associations that master new types of activities operate on the principle of market diversification.

### *3.5. By technological differentiation:*

agro–associations that perform one or more functions in the technological chain “production – processing – sale of finished products”;

agro–associations that cover the entire technological chain of product promotion – from the production of raw materials to the production of high-quality food.

### *3.6. On the innovativeness of management:*

agro–associations that adhere mainly to the traditional economic way of life and do not strive for permanent innovations;

agro–associations that continuously improve the entire management system and base their activities on complex innovations.

### *3.7. By market orientation:*

agro–associations that are not focused on market conditions and do not set the task of extracting additional commercial income;

agro–associations that base all their activities on the goals of obtaining additional benefits and commercial profit.

### *3.8. By the size of production (economic activity):*

small agro–associations that are based on the work of family members, close relatives and a small number of hired workers;

large agro–associations that affect various business entities and links in the technological chain both horizontally and vertically;

large integrated structures that build their activities strictly vertically – from obtaining agricultural raw materials to selling ready-made food products.

### *3.9. On the openness (completeness) of the economic organization:*

agro–associations that were formed initially as self-sufficient organizations that do not practice membership expansion;

agro–associations created as open to new members and functioning in order to involve new structures and expand the types and areas of activity.

### *3.10. On property ownership:*

agro–associations that are primarily owners of means of production, including land;

agro–associations that organize economic activities mainly at the expense of borrowed funds (on the right of use) and on lease terms.

### *3.11. On environmental friendliness of production:*

agro–associations that base farming on traditional methods (factors) of intensification using the full range of chemical, biological and technical means;

agro–associations, where a principled course on organic (ecological) agriculture is taken.

It should be noted that this systematization gives an idea of a wide variety of forms of cooperation and areas of cooperative activity abroad and allows decision makers to more clearly navigate when choosing specific forms of agro-associations for domestic practice. At the same time, the unconditional requirement of all types of agro-associations is to obtain high-quality products that are safe for human health, are in consumer demand, meet the economic interests of producers and consumers and do not cause significant consequences (negative) for the production process itself, as well as ecology and human health.

### Conclusion

The analysis confirms that cooperatives can withstand tough competition, because with the consolidation of economic opportunities,

they ensure continuous improvement of the production base and technologies, achieve deep processing of agricultural raw materials and waste-free production, create a wide range of products for consumer demand, react sensitively to market conditions. On the basis of studies of foreign practice of the organization and functioning of cooperative structures, the main characteristics of modern cooperative and integration relations are systematized: by orientation and penetration into various spheres of activity, by specialization, by stability of functioning, by technical differentiation, by innovative management, etc. The scientific novelty of this systematization is that it makes it possible to objectively assess the initial foundations, and organizational and economic base of various associations, and determine the most appropriate ones for specific business conditions.

### References

- Agriculture Models (2019). – <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/agricultural-modeling> [2023 07 29].
- Belgian Cooperatives Commit to Cooperation and Integration (2022). – <https://www.freshplaza.com/europe/article/9403831/belgian-cooperatives-commit-to-cooperation-and-integration/> [2023 07 26].
- Bijman, J., van der Sangen, G., Poppe, K., Doorneweert, B. (2012). Support for Farmers' Cooperatives; Country Report The Netherlands. Wageningen: Wageningen UR. – <https://core.ac.uk/download/pdf/29222962.pdf> [2023 07 26].
- Chiurciu, I.-A., Vlad, I., Soare, E., Toma, E., Firatoiu, A.-R. (2022). Aspects Regarding the Activity of Agri-Food Cooperatives in Germany // *Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development*. Vol. 22. No. 2: 183–190.
- Co-operative as a business model (2023). – <https://pellervo.fi/en/english/co-operative-business-model/> [2023 07 25].
- Cooperatives Europe. Annual Report (2023). – <https://coopseurope.coop/publication/2023-annual-report/> [2023 07 20].
- Copenhagen Fur (2023). – <https://www.kopenhagenfur.com/en/about-kopenhagen-fur/the-danish-fur-breeders-association/> [2023 07 30].
- Credit Cooperative (2023). – <https://www.housinginternational.coop/members/groupe-credit-cooperatif-credit-cooperative-group/> [2023 07 29].
- Economic Integration and Cooperation among Cooperatives. International Cooperative Alliance, ICA (2021). – <https://coops4dev.coop/en/node/15581> [2023 07 22].
- European Commission, Cooperatives (2023). – [https://ec.europa.eu/growth/sectors/proximity-and-social-economy/social-economy-eu/cooperatives\\_en](https://ec.europa.eu/growth/sectors/proximity-and-social-economy/social-economy-eu/cooperatives_en) [2023 07 30].
- Filippi, M. (2012). Support for Farmers' Cooperatives; Country Report France. Wageningen: Wageningen UR. – <https://edepot.wur.nl/244795> [2023 07 30].
- Frey, O. (2020). Study on European Agricultural Coops. – <https://olivierfrey.com/study-top-100-europeancoops/> [2023 08 01].
- Frey, O. (2022). Mapping and Challenges of Large Europe Agricultural Cooperatives: Analysis of the Financial and Extra-Financial Performance of the 100 Largest Agricultural Cooperatives in Europe. Study. May 2022. – <https://olivierfrey.com/wp-content/uploads/2022/05/Purchase-Order-Study-European-Coops-3.pdf> [2023 07 20].
- Frolova, O.A. (2010). Zarubezhnyj Opyt Razvitiya i Kooperirovaniya Lichnykh Podsobnykh i Krest'yanskikh (Fermerskikh) Khozyajstv // *Vestnik Nizhegorodskogo Gosudarstvennogo Inzhenerno-Ekonomicheskogo Instituta. Seriya "Ehkonomicheskie nauki"*. Vol. 1. No. 1: 16-27.

Guinnane, T. (2001). Cooperatives as Information Machines: German Rural Credit Cooperatives, 1883-1914 // *The Journal of Economic History*. Vol. 61. No. 2: 366–389.

Gusakoff, E. (2019). Klastery, Kooperativno-Integracionnye Struktury i Administrativnye Regiony: Komparativnyj Analiz // *Nauka i Innovacii*. No.3: 38–41.

Gusakoff, E. (2021). Osobennosti Razvitiya Kooperativno-Integracionnykh Otnoshenij v APK // *Ehkonomika Sel'skogo Khozyajstva*. No. 3: 35–51.

Hansen, H. (2020). Danish Farmer Cooperatives: Development, Importance and Lessons // *Cooperativismo & Desarrollo*. Vol. 29. No. 119: 1–34.

Hossard, L., Tardiyo, C., Barbier, M. (2022). Embedding the Integrated Assessment Systems in a Companion Modeling Process to Debate and Enhance Their Sustainability // *Agronomy for Sustainable Development*. Vol. 42. No. 11: 1–17.

Integrated Farm System Model (2023). – <https://www.ars.usda.gov/northeast-area/up-pa/pswmru/docs/integrated-farm-system-model/> [2023 07 24].

Kalaitzis, P. (2015). Development in EU Agri-Cooperatives. – <https://www.comcec.org/wp-content/uploads/2021/07/Mr.-Prodromos-KALAITZIS-General-Confederation-of-Agricultural-Cooperatives-COGECA.pdf> [2023 07 29].

Kaza, H. (2018). Innovation in Rural Japan: Entrepreneurs and Residents Meeting the Challenges of Aging and Shrinking Agricultural Communities // *Journal of Innovation Economics and Management*. No. 1: 87–117.

Mapping: Key Figures National Report: Germany ICAEU Partnership. International Cooperative Alliance, ICA (2020). – <https://coops4dev.coop/en> [2023 07 28].

Moraru, R.-A. (2018). The Cooperative System from Sweden Agriculture: Main Features and Evolution // *Lucrări Științifice, seria Agronomie*. Vol. 61. No. 1: 4–48.

Moraru, R.-A., Donosa, D., Brezuleanu, S., Ungureanu, G. (2008). The Agricultural Cooperation in Germany after Reunification // *Lucrari stiintifice, Seria Zootehnie*. Vol. 51: 290-298.

Swedish Supermarkets and the Promotion of Meat (2022). – <https://www.wfse.cdn.triggerfish.cloud/uploads/2022/11/swedish-supermarkets-and-the-promotion-of-meat.pdf> [2023 07 24].

The EU Dairy Sector: Main Features, Challenges and Prospects (2018). – [https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/630345/EPRS\\_BRI\(2018\)630345\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2018/630345/EPRS_BRI(2018)630345_EN.pdf) [2023 07 29].