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## ORGANIZATIONAL DEVELOPMENT OF AGRO-INDUSTRIAL COMPLEX ON BASIS OF COOPERATION AND INTEGRATION

**Problem statement.** When development is discussed, what is meant is progressive development under which qualitative changes in the system, including organizational ones, are positive. Objectively, according to the criterion of novelty, this condition can be more perfect or seem so. Development is associated with progress because it is a universal trend of the nature and society evolution. It is in this sense that we can speak about development as transition from the simple to complex, from lower to higher. However, everything is not so good when what we discuss is not evolution in the biological sense but individual development, ontogeny of an organization as a system, particularly, the agro-industrial complex as a social and economic organization.

Development of the agro-industrial complex can be not only progressive but regressive as well, when degradation, transition from the highest to the lowest, less perfect, occurs. The life cycle of an organization includes both progressive (creation, growth, maturity) and regressive (recession, liquidation) development.

Both progress and regression have their opposites: under the condition of rapid progress, it is possible to lose sustainability and caution; while under the condition of regression, it is possible to prevent decline of certain parts of the agro-industrial sector as an organization. In this case, development appears to be the most vivid manifestation of the dialectical law of unity and struggle of opposites.

Any organization is between the desire for progress and regressive standstills and retreats (caused by internal and external destructive barriers), between ongoing work to organize itself and disorganizing circumstances and routine.

Development of the agro-industrial sector is due to instability, volatility, bifurcation. Instability contributes to selection of the better. Progress and regress are closely interrelated and constitute a dialectical unity. There is no progress without regress and vice versa. Due

to this, organizational development of the agro-industrial sector is unstable to some extent.

Unresolved conflicts between economic agents of the agriculture and industry constitute one of the reasons for an insufficient pace of their economic growth. Cooperation and integration is an important mechanism for eliminating these contradictions.

A special position is occupied by enterprises of the food industry, which, in our opinion, constitute an integrational foundation for effective development of food production. They perform basic functions of coordinating to establish sustainable and mutually beneficial economic, industrial and technological relations, to ensure rational use of their capacity. They act as organizers and integrators of complex production and technological processes of food production and satisfying requirements of the public in them. It allows to create a strong export potential of the country and ensure an access to the world food markets.

### **Analysis of the latest studies and publications.**

To develop a full readiness of an organization to accept changes, its management has to provide capacity for such a perception in the very structure of an organization and its administrative actions. This realization led to creation of the concept of organizational development in the 1960s [1, p. 538]. As a result of its rapid evolution, managements were able to achieve methods and procedures for system diagnosis, planning, implementation and support of changes to improve efficiency of an organization.

According to O. Winnie [2, p. 367], subpurposes of the organizational development include changes in treatment of work, changing behaviour and stimulating changes in the structure and policy. As R. L. Daft [3, p. 390] notes, organizational development is carried out at the expense of adapting to changes in the external environment, skills to resolve emerging problems, improve internal relations. According to M. Biro's [4] views,

basic objectives of the organizational development include: achieving the consistency between an organizational structure, processes, strategy, personnel and culture; developing and creating new organizational solutions; developing an ability of self- renovation and self-regeneration.

In particular, the monograph [5] is devoted to organizational development of agricultural enterprises. Since enterprises of the agro-industrial complex are located mainly in rural areas, organizational development of the economic subjects in this sphere of the economy is inextricably linked to functioning of rural settlements [6].

**The aim of this article** is to highlight the results of the research of organizational development problems of the agro-industrial complex of Ukraine on the cooperation and integration principles, which allows to improve organizational and economic relations between enterprises of the agriculture and food industry.

**Presentation of the baseline of the study.** The made analyses allow us to state that organizational development is:

- a planned long-term process aimed at setting goals, organizing activities, motivation and control (and adjustments if any are necessary);
- a process based on the system approach and connecting a potential of an enterprise with its technology, structure and management;
- a process focused on solving problems of an organization by using various theories and scientific researches (including behaviorism);
- a process in which an organizational design is exercised, consultants are involved where it is appropriate;
- a training process that involves staff retraining and is a means of formulating organizational culture.

In our opinion, development of an organization is due to the following factors:

- 1) changes in the external environment;
- 2) transformation of an organization derived from operation of market forces, change of characteristics of the "input" of an organization, transition to a new organizational structure, new technology, changes in motivation of employees and others.

It has been established that development of an organization is based on the laws of ontogeny, composition and proportionality, self-preservation, competition, economy of scale and transition to new scientific approaches and management principles (table 1).

Organizational development of the agro-industrial complex of the economy is closely related with considering operation of the above examined laws, and knowledge of them allows to select the most effective ways to achieve the stated objectives.

Implementing organizational and integrational functions by enterprises of the food industry is primarily due to a higher level of industrialization of production processes. Integration of processing enterprises and ag-

ricultural enterprises promotes to shaping parity of economic relations between them, increasing production of competitive food commodities. As a result, it allows to obtain high economic performance by eliminating contradictions between economic entities.

Table 1

**Fundamental laws on which organizational development is based**

Law	Essence of law
Law of ontogeny (law development)	Each material system tries to achieve the greatest total capacity while undergoing all or a part of stages of their life cycle
Law of composition and proportionality	Each material system tries to save all the necessary elements (a composition) which are in a prescribed ratio and prescribed subordination (a proportionality) in its structure
Law of self-preservation	Each material system tries to save itself (to survive) and mobilizes its full potential for this (source)
Law of competition	The objective process of washing-out of organizations being unable to maintain a competitive position in the markets of goods and services

Sources: designed on the data [7, p. 36-37; 8, p. 27-35].

This is due to the following factors:

- 1) reduction of logistics costs for storage and transportation of agricultural commodities by reducing a distance of their transportation and a number of shipments;
- 2) a part of secondary raw materials (waste) obtained in the result of processing agricultural commodities may be used for feed purposes;
- 3) selection and implementation of advanced technologies is achieved (from the beginning of cultivation of agricultural raw materials to the sale of products of their processing);
- 4) there emerge conditions and opportunities for creation and development of an economic mechanism of managing inter-sectoral processes in the sphere of food commodities production based on considering and balancing economic interests of all the participants of the agro-industrial complex.

Domestic agricultural raw materials precessing industry mainly supplies the public with food. However, outdated technological equipment of many processing enterprises hinders development of deep product processing, expanding a range of commodities, their pre-packing, packaging and others. There is a need for modernization and reconstruction of the existing material and technical basis, transition to new food manufacturing technologies, use of marketing tools while studying market needs, etc.

The problems of economic relations between agricultural producers and processors have not been solved

completely. This hinders an increase of high-quality, safe food production. There is an urgent need to adjust economic relations between agricultural and industrial enterprises by addressing disparity in prices. It is difficult to ensure an increase of product competitiveness without creating economic conditions for mutually beneficial cooperation of the agro-industrial complex transactors.

Due to better financial opportunities, processing enterprises usually become integrators of the regional agro-industrial complex. Each such company and producers of agricultural commodities constitute a primary agro-industrial area of the regional agro-industrial complex.

A quantitative composition of agro-industrial areas depends on their territorial location, production capacity, actual transport connection and other factors. Given a location and size of primary areas, selection and breeding centers, breeding farms, enterprises manufacturing animal feed may be formed. These and other units are determined by a rational size and concentration of production of the respective kinds of commodities.

A few primary agricultural areas together with a selection and breeding center, breeding farms and enterprises manufacturing animal feed can form a secondary agro-industrial area of the regional agro-industrial complex of a cluster type. They can include industrial enterprises manufacturing engineering tools. Their number is predetermined with an available location, production capacity and consumer demand.

Regional agro-industrial complexes form the national agro-industrial complex. The national agro-industrial policy is implemented within its bounds that provides for development of agricultural production, its industrial processing, domestic and foreign food markets and rural areas.

Organizational development of the agro-industrial sector should include improvement of production relations based on cooperation and vertical integration of agricultural and processing enterprises.

In our opinion, one of the options for integration is a union of agricultural producers and processors on the joint-stock basis. The following principles and approaches should be conditions for activities of such agro-industrial units:

- a voluntary accession;
- preserving legal and economic independence of enterprises and organizations that are part of an integrated formation and their ownership of the means of production;
- common distribution of work caused by operation of the law of work time economy;
- economic separation and appropriation of labour division products by primary producers, processors and trade;
- economic interest in development of integrated production of a certain type of food;

- economic responsibility for the outcomes of joint activities;

- a contract system of organizational and economic relations between primary producers, processors and trade;

- interconsistency and mutually beneficial economic relations between individual producers.

According to international and domestic experience, benefits of close-ended production associations, including primary producers, processors and commercial enterprises, are obvious. Importantly, a joint stock company forms its own stable raw material base. Enterprises-shareholders gain opportunities for ensuring production development and reducing production costs. An income from activities of integrated companies will allow to increase a share of state revenues.

The economic interest of structural units making up an association is primarily based on profits, which they can obtain by improving a range and quality of the final products, better use of resources. In an integrated formation, profits consist of obligations to the state and profits distributed throughout a chain of integrated production, taking into account contribution of each participant in the process to the final result. Each subject of an integration should receive funds immediately after ending of a production cycle. Total profits incorporated in all the kinds of prices should be calculated on a uniform methodological basis for all the participants of an integrated unit.

At the same time, the following approaches to distribution of profits can be used:

- a) in proportion to all costs incurred (costs of production and services);

- b) in proportion to the value of main production assets and working capital, taking into account a speed of rotation of each component of capital.

In our view, a regulatory cost value should be determined at an average of a group of enterprises belonging to an integrated unit. At the same time, it is necessary to avoid an undue overstating of production costs related to organizational and technical shortcomings of activities of integrated companies.

Economic organizations whose production costs are lower than the standard value will have higher profits derived from the sale of the final result and its distribution among subjects of an integrated system. Conversely, agricultural enterprises having higher production costs will get less profit per unit of produced raw materials and, therefore, per unit of production costs.

At processing enterprises, production costs should also be determined on the standard basis taking into account a technology level, opportunities for mechanization and automation of production, loss prevention and so on.

Under the conditions of integration, it is possible to organize a processing industry on the give and take basis when a manufacturer as an owner of the final output can

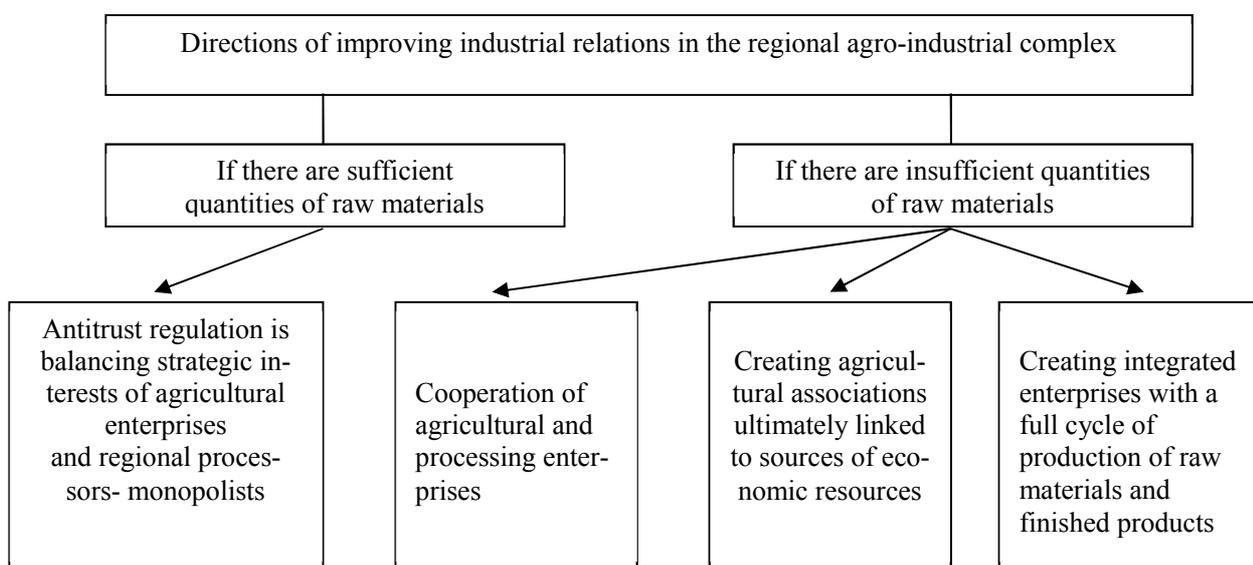
use it voluntarily. In this case, an agricultural producer pays to an processing enterprise with raw materials or money to compensate processing costs, refrigeration processing services, production storage and other services at negotiated rates. They are set on the basis of actual costs for a prior month and standardized earnings.

In the agro-industrial sector, the following directions for improving industrial relations are appropriate (fig. 1).

If there are sufficient quantities of raw materials, it is expected to attract enterprises to participate in the management of economic activities. Economically, it is achieved by mutual penetration of capitals of enterprises through an assignment of shares or joint establishment. A balance of strategic interests is created in this way.

Shares of the authorized capital of enterprises of the food industry and agriculture have to be equivalent or have a certain imbalance depending on a regulation purpose.

This option is implemented if a processing plant does not lack raw materials. Provided breakeven, such a scheme allows to use advantages of specialization and concentration of production. Even so, an enterprise loses a certain part of profits due to selling raw materials but not a finished product. However, practical implementation of this option of improvement of economic relations in the food sector is problematic because shares belong not to the company as a whole but to concrete shareholders and a mutual assignment of shares may be implemented only on a voluntary basis.



**Fig. 1. The main directions of improving industrial relations in the regional agro-industrial complex**

One of the main problems for many enterprises of the food industry is a lack of raw resources. In such circumstances, cooperation of processing and agricultural enterprises, establishment of vertically integrated structures, enterprises of a single technological cycle providing direct investment in the agriculture are appropriate.

Based on this, cooperation is an effective way to improve economic relations in the agriculture. On the basis of cooperation, tasks to provide enterprises of the food industry with raw materials and agricultural enterprises – with material resources and investments can be accomplished (fig. 2).

In this case, the main problem may be a division of payment for products (raw materials) into money and material (barter) components by agricultural enterprises. If there is a lack of funds, the purpose of such balance of payment is obvious - the money part has to be directed to remunerate for labour, given its significant impact on labour productivity. The second part can also be paid in a money form. But on this occasion, an enterprise

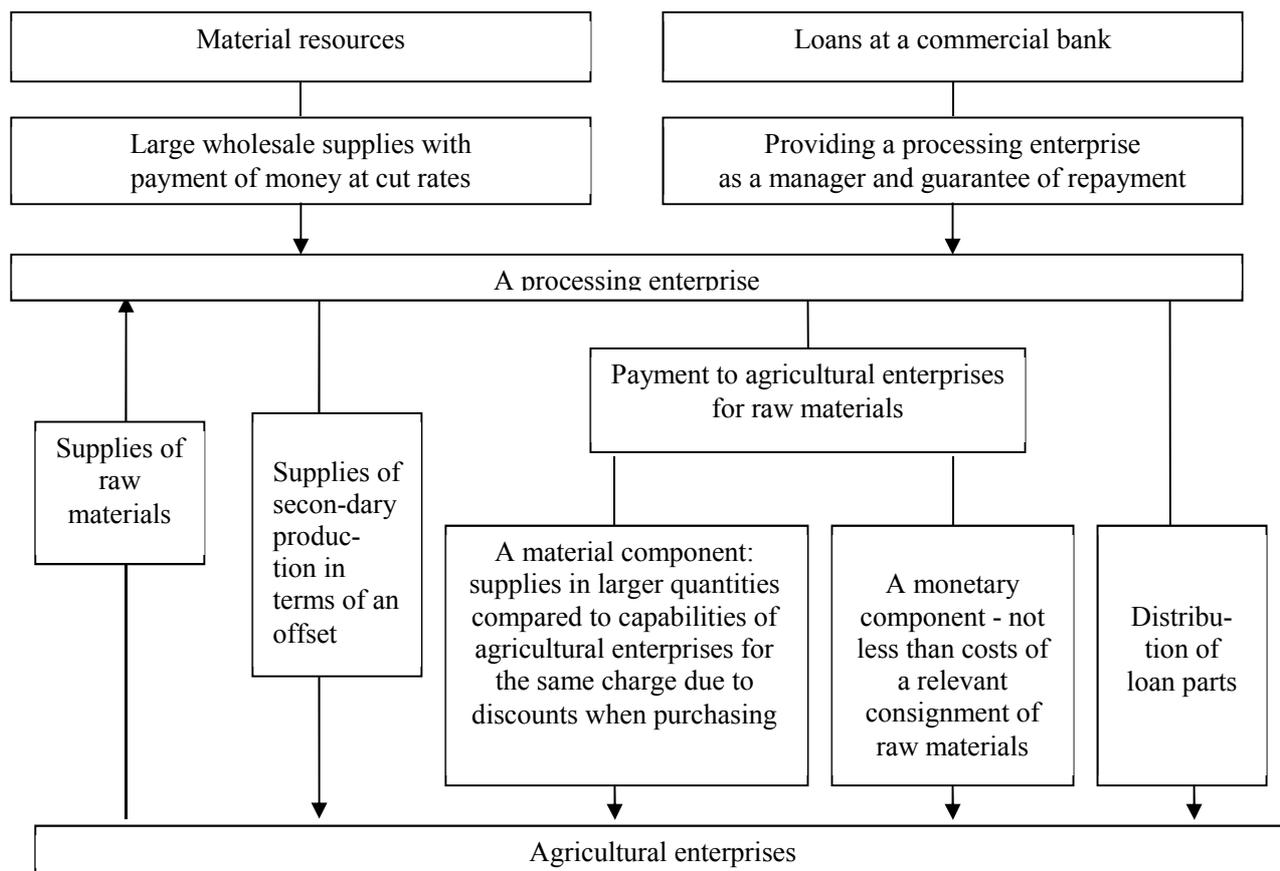
has to purchase material resources on its own that contributes to transaction costs.

If there is such a scheme, providing material resources of agricultural enterprises is done in a larger amount compared to cases when resources are purchased by enterprises for the same cost. Thus, a processing plant can supply resources to agricultural enterprises for a profit or with guaranteed covering turnover costs and transaction costs.

Based on cooperation, enterprises of the food industry can attract credit resources from commercial banks which are not available for individual agricultural enterprises because of great production risks and absence of adequate liquidity as well as a small amount of attracted loanable funds.

A processing enterprise has better conditions to attract a loan due to the following factors:

- more likely repayment because profitability of processing enterprises exceeds a nominal interest on loan. Given a real rate (a nominal rate minus inflation), repayment can be guaranteed with high probability;



**Fig. 2. A model of cooperation of agricultural enterprises and enterprises of the food industry**

- availability of liquid assets that can be used as security;
- possibility of attracting large amounts of credit resources.

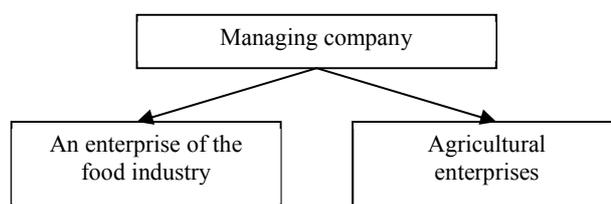
In this case, a processing plant can be a manager of loans for agricultural enterprises, monitoring effectiveness of their use and ensuring their repayment.

Due to cooperation, it is possible to supply secondary products, such as skim whole milk, to agricultural enterprises in terms of an offset and using other forms of mutually beneficial cooperation. The introduced scheme of cooperation does not limit a number of participants and provides independence of a processing enterprise and agricultural enterprises.

In our opinion, an effective economic lever is not raising prices but investing in specific projects to increase agricultural production. Investment projects in the agro-industrial sector require effective management of resources, for which vertically integrated organizations can be created. Depending on the scale of specific projects and conditions, in particular, it is possible to establish two-stage integrated organizations (fig. 3).

In the presence of such an integration, enterprises of the food industry and agricultural enterprises are on an equal footing concerning subordination. It can be cre-

ated on the basis of direct submission (if these are government enterprises), on the basis of a holding or other forms of joint establishment (in the case of private enterprises). Such associations facilitate an access to credit resources (as banks can also be their shareholders), as well as to material resources (if an organization includes enterprises of other sectors).



**Fig. 3. A scheme of a two-stage integrated organization**

To avoid excessive taxation, it is promising to create non-profit organizations where a partner association is carried out on the technological, organizational and economic basis. This scheme has the following features:

- using benefits of specialization and concentration of production;

- development of a common price policy in the interest of all participants;

- a possibility to get financial resources on favourable terms and attracting investments for agricultural enterprises;

- risk insurance (insurance companies will work with such associations with greater pleasure due to reducing a probability of risk);

- solving social problems at lower cost.

However, in this version of integration, there is an appropriate market gap between agricultural enterprises and processing enterprises which leads to loss of income in the agriculture. Agricultural and processing enterprises remain independent to a certain measure but at the same time purchase and sale of agricultural raw materials for processing is not excluded.

Conclusions. Thus, the important areas of organizational development of the agro-industrial complex are: firstly, antitrust regulation, cooperation and integration of agricultural production and its processing; secondly, creating a competitive environment that requires attracting investments.

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**Іванов С. В., Перебийніс В. І., Олексенко Л. В., Світлична А. В.** Організаційний розвиток агропродовольчого комплексу на засадах кооперації та інтеграції

Доведено доцільність організаційного розвитку агропродовольчого комплексу економіки на засадах кооперації та інтеграції. Це дозволяє удосконалити організаційно-економічні зв'язки між підприємствами сільського господарства та харчової промисловості. Обґрунтовано два підходи: перший, що ґрунтується на розвиненій сировинній базі; другий, що обмежений недостатньою кількістю сільськогосподарської сировини. Сформована модель кооперації сільськогосподарських підприємств і підприємств харчової промисловості.

*Ключові слова:* організаційний розвиток, агропродовольчий комплекс, сільське господарство, харчова промисловість, кооперація, інтеграція.

**Іванов С. В., Перебийнос В. И., Олексенко Л. В., Светличная А. В.** Организационное развитие агропродовольственного комплекса на основе кооперации и интеграции

Доказана целесообразность организационного развития агропродовольственного комплекса экономики на основе кооперации и интеграции. Это позволяет усовершенствовать организационно-экономические связи между предприятиями сельского хозяйства и пищевой промышленности. Обосновано два подхода: первый, основанный на развитой сырьевой базе; второй, ограниченный нехваткой сельскохозяйственного сырья. Сформирована модель кооперации сельскохозяйственных предприятий и предприятий пищевой промышленности.

*Ключевые слова:* организационное развитие, агропродовольственный комплекс, сельское хозяйство, пищевая промышленность, кооперация, интеграция.

**Ivanov S., Perebyynis V., Oleksenko L., Svitlychna A.** Organizational development of agro-industrial complex on basis of cooperation and integration

Expediency of organizational development of the agro-industrial complex of the economy on the principles of cooperation and integration has been proved. This allows to improve organizational and economic relations between enterprises of the agriculture and food industry. Two approaches have been grounded: the first is based on the developed raw material basis; the second is limited with a lack of agricultural raw materials. The model of cooperation of agricultural enterprises and enterprises of the food industry has been formed.

*Keywords:* organizational development, agro-industrial complex, agriculture, food industry, cooperation, integration.

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