

Development of Export-oriented Supply Chain Management in Agri-food Industries

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Abstract

The preconditions for the successful development of agricultural industries in Ukraine are the favorable geopolitical position, significant production potential, the availability of a skilled labor, and a powerful raw material base. The authors justified the basic goals in Ukraine's agricultural trade policy improvements, including increasing the share of processed foods and improvements of agricultural exports structure; opening new niches in the global market and diversification of export markets; support of small and medium-sized producers in their export efforts; increasing the level of global competitiveness of Ukrainian producers and processors. It is determined that the main scientific and practical task in exporting agricultural products is to build effective supply chain management mechanisms. Export-oriented management of the agri-food supply chain is aimed at achieving not only economic but also social goals – increasing employment in rural areas and improving the standard of living of the population. A promising direction for enhancing agro-export potential may be the use of cooperative forms of business that will be able to realize themselves in the fields of procurement, distribution, transportation and finance.

Keywords: Agri-Food Industries, Supply Chain Management, Export, Global Competitive Advantage.

Introduction

The growth of global economy is accompanied by an increase in the intensity of technologies' flows, movements of goods, services and economic resources across national borders. Globalization is combined with the dynamic processes of increasing the volume of inter- and intra-industry trades, deepening the interdependence of agricultural markets and technologies, enhancing the influence of the world macroeconomic factors. The modern system of global food markets is characterized by dynamic and complex nature.

The economic transformations in the agri-food sector of Ukraine are aimed at ensuring the conditions of a competitive environment and creating the economic mechanism in accordance with the principles of a decentralized system. The agro-industrial complex is an important component of the Ukrainian economy. The country has all prerequisites for gaining global competitive advantage in the agricultural sector. The availability of fertile lands and the orientation to strategic global marketing niches can be mentioned as preconditions for the successful development of agricultural industries.

Ukraine is located near important global markets. The favorable geopolitical position, significant production potential, the availability of a skilled labor, the powerful raw material base in the agricultural sector determine the investment attractiveness of the country. Nowadays, considering the influence of economic and political drivers, a strong recognition of the importance receives the ensuring the competitiveness of domestic agriculture. An urgent problem is the restoration of lost and the maintenance of new export positions. The reduction in in the level of monopolization of the economy, regulatory measures towards the transparency of the economic environment, coordinative improvements of strategies of domestic business entities aimed at achieving competitive positions in world commodity markets can be listed as significant steps towards the solutions of the current problems which continued to have a negative effect on agriculture. As volumes of agri-food exports continue to grow the construction of efficient supply chain management mechanisms is among the important scientific and practical tasks at the moment.

The development of Ukraine's agriculture in the context of competitiveness

In the conditions of transformation of property rights and changes of forms of management in the agrarian sector of Ukraine, it is necessary to ensure efficient use of production resources and achieve stable economic growth of the economy.

An important element of Ukraine's agricultural policy is the development of the food market system. In current conditions it is necessary to increase the level of production and technological efficiency, to ensure the improvement of national standards of food quality in accordance with international requirements, to stimulate the creation of competitive conditions and to continue carrying out economic reforms.

A sustainable agricultural management mechanism can be provided with an integrated crop and livestock system capable of meeting demands in food and raw materials, most effectively utilizing renewable and non-renewable resources, guaranteeing the balance of natural biological cycles, and supporting businesses efforts to raise the living standard of the population. Growing plants and raising animals are at the origin of the export-oriented food supply chains.

The next forms of competitive behavior may be observed in transitional economies (Wehrheim, et al., 2000).

1. Traditional forms that are common to advanced market economies:

- price competition;
- non-price competition;
- commodity differentiation;
- application of the system of guaranteeing the quality of products and services;
- use of sales promotion system.

2. Specific forms inherited from the command and administrative system of governance and planned economy:

- economic support from governmental bodies at all levels;
- creating favorable economic conditions for individual entrepreneurs through informal contacts.

3. Specific forms that are combined with the economic crisis:

- delay in making payments;
- the usage of payments in kind.
- 4. Specific forms that that can be observed in the functioning of underdeveloped markets and manifestations of market inefficiency:
- involvement of officially unregistered labor;
- the practice of officially unregistered production;
- tax avoidance.

At the beginning of the economic reform period in the context of the Static World Policy Simulation modeling framework Liefert (1994) predicted an increase in grain exports, a decrease in meat production, and the utilization of most of the stocks of the obsolescent and depreciated equipment in agriculture, emphasizing the lack of competitive advantage in animal production in the newly independent states. Many experts' predictions about the prospects of the domestic agricultural market have come true. The imperfection of regulatory strategy and tactics in the process of reforming Ukraine's agro-industrial complex has led to a decrease in the efficiency of the domestic animal production (Figure 1).

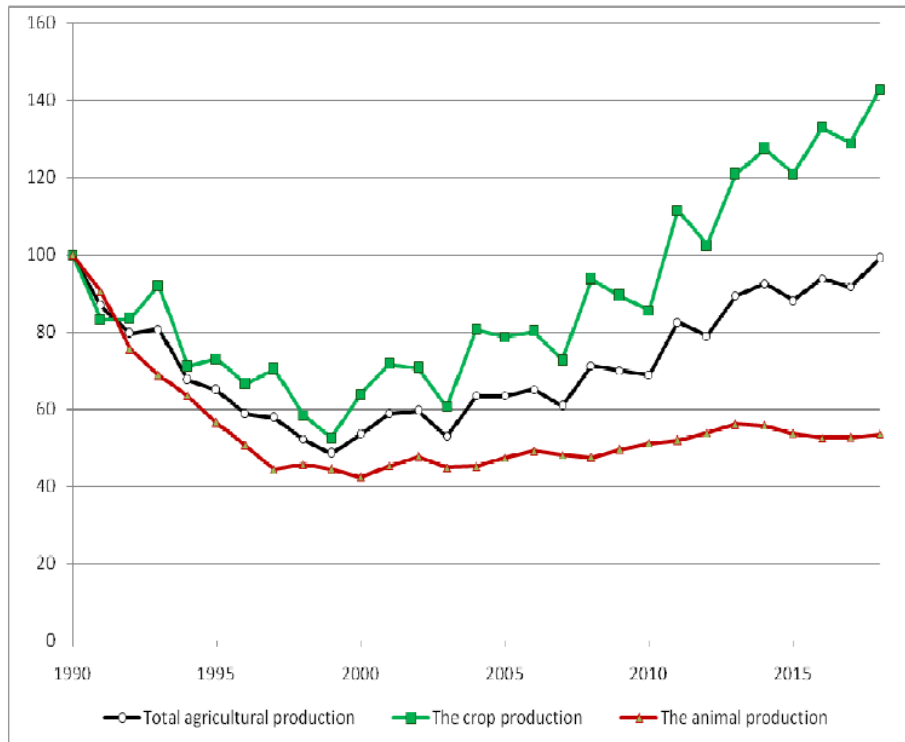


Fig. 1: Indices of agricultural production (1990=100%)

Source: data from the State Statistics Service of Ukraine (2019)

Supply Chain Management in Agri-food Export

Stoke and Lambert (2001), identifying strategic planning tools and analyzing operational practices in key logistics activities, consider the main reasons for the increased interest in logistics management: changes of consumer preferences, reduction in profits due to increased logistics costs, intensification of competition in the field of information technologies, redistribution of market power in supply chains. The conceptual framework by Aramyan *et al.* (2007) states that agri-food supply chain performance is characterized by efficiency (costs, profit, return on investment, inventory), flexibility (customer satisfaction, volume flexibility, the quantity of back orders and lost sales), responsiveness (fill rate, delivery delays, customer response time, lead time, shipping errors, customer complaints), product quality (sensory properties and shelf life, product safety and health, product reliability and convenience), and process quality (production system characteristics, environmental aspects, marketing).

The fall in the terms of trade indexes of meat and meat preparations, fish and crustacean, milk and milk products; eggs; honey, some other animal products, seedings and other trees, eatable fruits and nuts, shellac, sugar and sugar confectionery, cocoa and cocoa preparations, preparations of grains, products of vegetables processing indicates an unfavorable trends (Table 1).

Table 1: Terms of trade indexes for some agri-food commodities in Ukraine, 2018 (per cent)

Product group	2017	2018	One year change, (+,-)
Live animals	102,3	114,9	12,6
Meat and meat preparations	112,5	110,7	-1,8
Fish and crustacea	100,8	97,1	-3,7
Milk and milk products; eggs; honey	108,5	97,4	-11,1
Other animal products	112,9	96,7	-16,2
Seedings and other trees	113,9	104,1	-9,8
Vegetables	94,5	95,2	0,7
Eatable fruits and nuts	146,3	106,6	-39,7
Coffee, tea	85,7	111,2	25,5
Cereals	102,1	105,6	3,5
Flour-grinding products	118,8	127,7	8,9
Oil seeds and fruits	97,9	98,4	0,5
Natural shellac	113,3	94,4	-18,9
Plant materials for producing	84,2	190,5	106,3
Animal or plant fats and oils	92,3	103,0	10,7
Preparations from meat, fish	92,7	99,3	6,6
Sugar and sugar confectionery	97,6	82,6	-15,0
Cocoa and cocoa preparations	111,4	100,0	-11,4
Preparations of grains	104,9	100,6	-4,3
Products of vegetables processing	112,9	107,6	-5,3
Other mixed foodstuffs	93,1	98,3	5,2
Alcoholic and non-alcoholic beverages, vinegar	97,4	108,2	10,8
Remains and wastes of food industry	89,7	112,2	22,5
Tobacco and industrial substitutes of tobacco	93,7	100,2	6,5

Source: data from the State Statistics Service of Ukraine (2019)

The main goals in Ukraine’s agricultural trade policy improvements can be seen as:

- increasing the share of processed foods and improvements of agricultural exports structure;
- opening new niches in the global market and diversification of export markets;
- support of small and medium-sized producers in their export efforts;
- increasing the level of global competitiveness of Ukrainian producers and processors (Trofimtseva, 2016).

Supporting the dynamic competitiveness of the agri-food supply chains requires an immediate response to changes in the global food market system. Among the main promising Ukraine’s exported agricultural commodities are sunflower oil, maize, wheat, rapeseed, oilcake, soy beans, barley, poultry meat, cigars and cigarettes, sugar; fish, raw tobacco, sunflower seeds, foodstuffs, ethyl alcohol, citrus fruits, animal feedstock, palm oil, bananas and maize prevail among the imported food items (the State Statistics Service of Ukraine, 2019).

The agri-food supply chain management with export orientation centered on reflection of the economic and social objectives is intended to achieving not only economic but also social goals – increasing employment in rural areas and improving living standards of the population (Fig. 2).

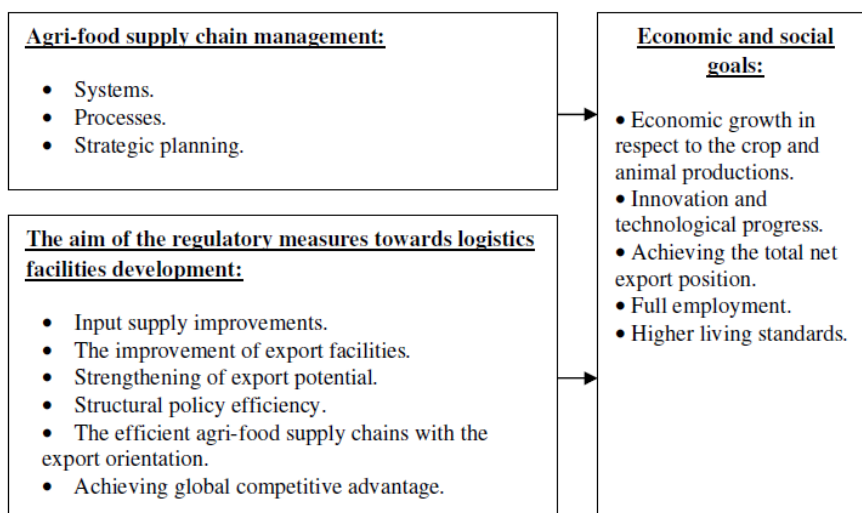


Fig. 2: Achieving economic and social goals through the agri-food supply chain management with export orientation

Strengthening the economic position of domestic agricultural enterprises on the export markets is possible the improvement of government’s regulatory policy and development of logistics infrastructure.

A promising direction for enhancing agro-export potential may be the use of cooperative forms of business that will be able to realize themselves in the fields of procurement, distribution, transportation and financing. In this case, manufacturers have the opportunity to form the required set of products for sale and to provide storage through capacity sharing. For the same aim the reflexive and responsive agro-industrial clusters with a global diffusive capacity may be created.

Conclusion

Nowadays, Ukraine is considered as one of the most influential agricultural exporters, which in the conditions of increasing global demand for food gives a chance to win and hold competitive positions in the world food markets.

In such circumstances, the issues of comprehensive studies of logistic processes in agriculture are extremely urgent, the analysis of which is impossible without defining the system characteristics. Identifying these characteristics provides the basis for describing a common criterion for the efficiency of the logistics system, the operation of which is linked to the profit generated by the optimization of agri-supply chains – from the production of raw materials to the production of the final product and export facilities.

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