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INFRASTRUCTURE OF AGRICULTURAL MARKET: STATE AND DEVELOPMENT PROSPECTS

Здійснено аналіз нинішнього стану інфраструктури вітчизняного аграрного ринку.

Доведено, що інфраструктура аграрного ринку в Україні, перебуваючи уже тривалий час в стадії становлення, практично не виконує покладених на неї функцій щодо створення стабільних умов для забезпечення сільськогосподарських товаровиробників виробничими ресурсами та реалізації виробленої продукції. Все це призводить до значних витрат виробників, переробників і споживачів, втрат державного та місцевих бюджетів.

Обґрунтована необхідність докорінної зміни підходів до формування інфраструктури аграрного ринку, що має здійснюватися за умови синхронного розвитку її складових: маркетингової, фінансово-кредитної, інформаційно-консультаційної, логістичної, організаційної. Державна аграрна політика має сприяти вирішенню цих завдань і бути спрямованою на формування оптових ринків аграрної продукції та матеріально-технічних ресурсів; формування нормативно-правової бази для запровадження ф'ючерсної торгівлі та вдосконалення системи складських свідоцтв на ринку зерна; забезпечення розвитку мережі агроторгових домів у формі маркетингових кооперативів.

Ключові слова: інфраструктура, торгові біржі, оптові ринки, елеватори, логістика, інформаційно-консультативні центри.

Problem definition and its relation to important scientific or practical issues. Agriculture has been the main factor of the national economy engine of growth nowadays since it is the only industry that had a growth of 2.8% over Ukraine in 2014 and provided 30% of the domestic agricultural sector eksport. 3577.5 thousand people are employed in agricultural sector. However, modern agricultural production has a number of problems.

Despite the existence of the legal framework of agricultural market infrastructure development, it does not provide transparent free movement of agricultural products, and the lack of a clear implementation of the "producer - wholesale - retail - consumer" scheme has a negative impact on the price situation on the agricultural market. All these give don't give the manufacturer the possibility to obtain sufficient income from the products grown because it is not an agricultural producer who gains the highest rate of return but those who process and resell agricultural products, the latter determine essentially the level of purchase prices and affect the income redistribution having occupied their place as the infrastructure institutes.

These problems would not be that acute if there functioned an effective network of agricultural products movement from a producer to a consumer, which would ensure the parity of producers, processors and ultimate consumers' economic interests and were based on the achievements of modern management, logistics, marketing and effective financial justification.

Analysis of recent researches and publications. Scientific papers of national economists such as P. Berezivskyy, V. Honcharenko, V. Zinovchuk, M. Malik, L. Moldavan, P. Sabluk, O. Shpychak, O. Shubravska and others deal with the problems of agricultural market infrastructure formation and functioning. They have proved that the most urgent problem of Ukrainian agriculture modern development is the formation of civilized transparent channels of agricultural products promotion from the manufacturer to the ultimate consumers through the development of agricultural market infrastructure.

However, the infrastructure composition and functions, its regional features and methods of ensuring its effective functioning at various organizational and hierarchical levels remain unclear, the sequence and ways of achieving consistency in the formation of agricultural market infrastructure elements have not been justified. Until now, individual components of agricultural market infrastructure in Ukraine are uncoordinated and the have been functioning haphazardly and chaotically. Neither the concept of market infrastructure, nor its function and or the formation procedure are not defined clearly.

Therefore, the acute need to develop a system of market institutions performing the functions concerning the formation of integral and stably functioning agricultural market. Also, scientifically grounded principles of infrastructure elements formation require improving; these principles could become the basis of a well functioning agricultural market.

The research aims at analysing the current state and prospects of the national agricultural infrastructure market development.

The main results of reseach. Under constant growth in global demand for food, the domestic agrarian industry has got favorable opportunities not only to meet the needs of its own population for essential foods, but also to increase exports, which will provide economic growth not only in agriculture but in the economy as a whole as well. Of course, it is closely related to the effective development of the agricultural market which depends on the state of its infrastructure, the infrastructure is the weakest link in the chain "agriculture - processing – sale”. This makes effective communication between the agents of the agricultural market impossible, results in agricultural enterprises operating expenses increasing, and, finally, reducing the competitiveness of domestic products in the domestic and foreign markets and curbing economic development of agriculture.

The infrastructure of the agrarian market includes a significant number of businesses and institutions performing service functions, which include elements of trade and marketing, transport systems, standardization, insurance, lending, certification, i.e. the set of sectors and sub-sectors of the national economy and economic activities that provide material production services, provide economic circulation and giving services to population, create conditions for the environment protection and reproduction [1].

Agricultural market infrastructure includs marketing, finance and credit, logistics, information consulting and organizational components (Fig. 1).

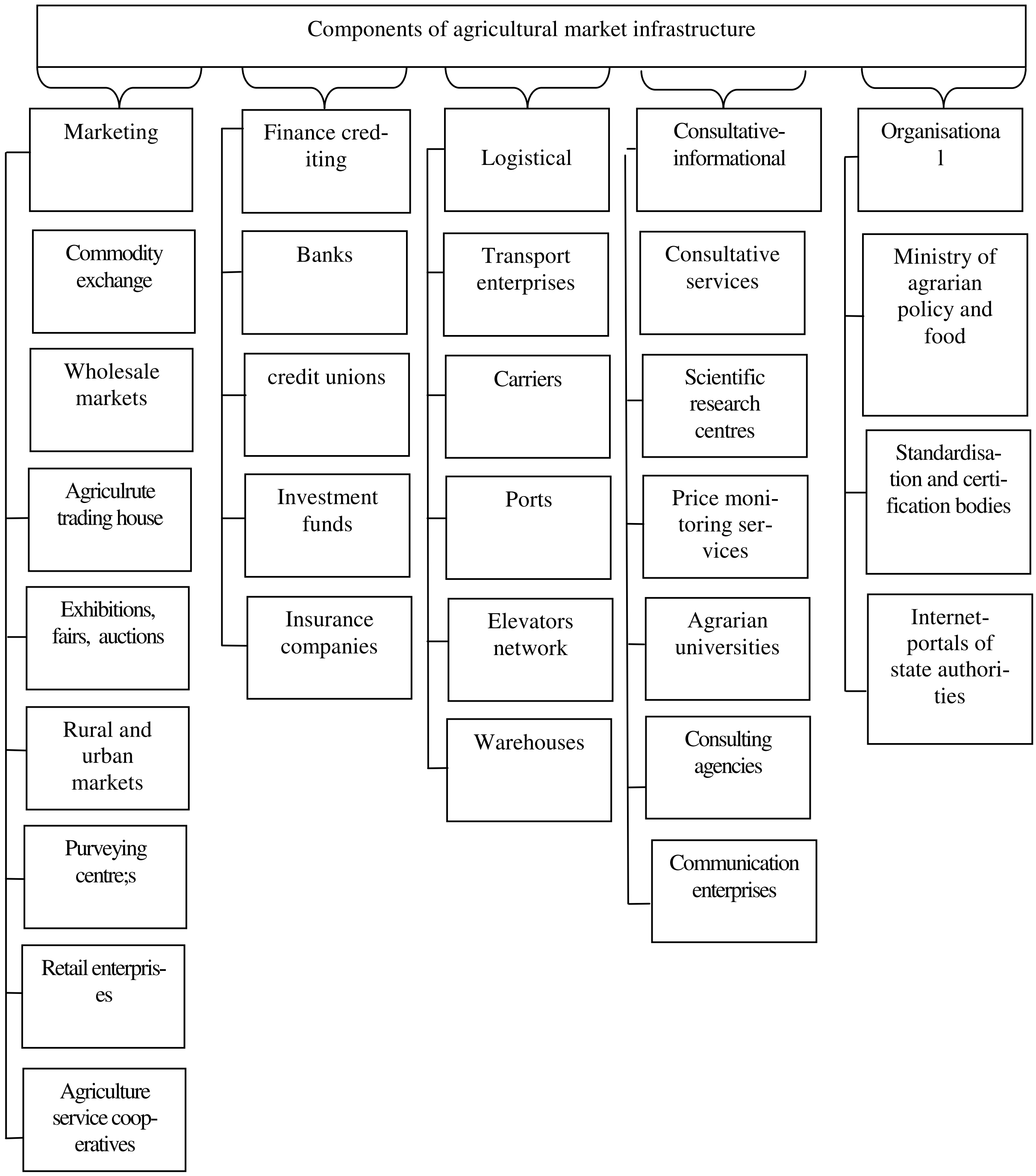

Fig. 1. **Components of agricultural market infrastructure.**

None of the agricultural infrastructure components meets the requirements of modern business in Ukraine nowadays. The most acute, in our opinion, is the problem of wholesale infrastructure underdevelopment, particularly that of exchange institutions [2]. It is a developed stock market that provides the real price of agricultural goods definition, transparent and stable interaction of its agents, effective promotion, price risks minimizing, i.e. it acts as the antimonopoly mechanism, ensuring equal opportunities and balance of buyers and sellers’ interests. Although agricultural exchanges exist in all regions of Ukraine, wholesale trade in agricultural products at these exchanges remains undeveloped, and their numbers has decreased recently (Fig. 2).

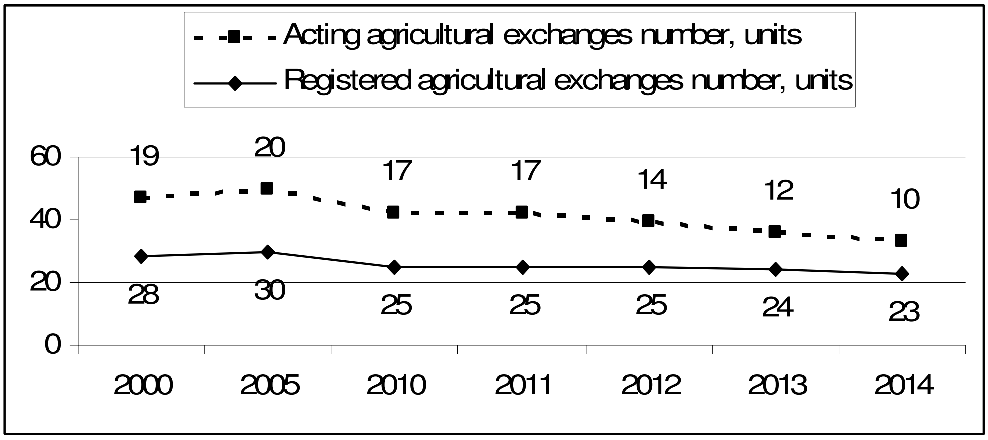

Fig. 2. **Registered and acting agricultural exchanges in Ukraine number.**

The number of trades conducted decreased by 1600 units in 2014 compared with 2000, although the number and volume of the transactions increased, due to the introduction of compulsory exchange export contracts registration (Table 1).

Table 1 – **Basic indices of agricultural exchanges activity**

Index	2005	2009	2010	2011	2012	2013
Trades number, units	2329	3097	2606	1561	1118	710
Transactions number, units	11747	11919	10950	39121	40927	23166
Transactions volume, UAH mln	9868,5	15310,5	17986,5	81228,9	102824,5	13352,3
Members of exchanges number at the end of the reporting period - total, persons	1329	769	680	527	443	449
Average registered number of exchange registered staff, people	168	190	156	162	162	137
Part-time workers and civil contracts workers number, persons	32	21	37	34	23	23
Brokerage offices (firms) - independent brokers number total, units	667	647	662	550	378	356

Yet, some intensification of agricultural products trade through commodity exchanges does not solve the problem of agricultural products marketing by small producers (private households) at affordable prices. Only accredited agricultural enterprises, that are not agricultural producers and the number of which is increasing, have access to commodity exchanges today. In addition, there is no effective mechanism for pricing in the domestic agricultural market exchange; no transparent and coordinated actions at the exchanges, there is no official information on their activities and export parties formation on the OTC market. The abovementioned prevents from forming the real price of agricultural products and from engaging a wider range of agricultural producers, businesses and intermediary firms in open public auction. There are practically no electronic trading mechanisms introduced at commodity exchange market with the use of the commodity circulation tools, including commodity derivatives and warehouse receipts, a system of spot, forward and futures trading to reduce price risks of agricultural production.

Since agricultural production is concentrated mainly in the private farms (gross livestock production is 56.5%, crops production - 41.4%), and it is difficult for them to compete with large producers because of high cost of production, significant costs of transport and storage, lack of the systemic distribution channels, the problem should be solved through development of wholesale markets of agricultural products. Wholesale markets can be an effective tool in the implementation of the state agrarian policy at national and regional levels and ensure not only food security, but increase the competitiveness of national agricultural products at international level as well.

It is in the wholesale markets that any producer can sell his products for the price of a free market and increase the sales profitability by reducing the implementation costs. This is especially true in the implementation of agricultural products like fruits, vegetables, meat, fish, dairy products, etc.).

Manufacturers of agricultural products receive information about the the market requrements and sell their products at reasonable prices, they are able to receive orders for their products from wholesale customers and form their own production program (quantitative and qualitative). Availability of wholesale markets allows producers to do without the services of numerous intermediaries and go for direct trading with consumers directly which provids better marketing conditions.

Agricultural products wholesale market (APWM) help not only to preserve the products but gives them an attractive sale presentation with their calibration, cleaning, packaging, packing, etc. Wholesale market increases the avccessability of agricultural producers directly to the wholesalers that may affect the increase in their income significantly.

At the APWM a manufacturer can receive services of sales contracts documenting, banking, goods transportation and so on. The main benefits of domestic fruits and vegetables wholesale operators is that the supply and demand are concentrated in convenient locations to move trade flows within Ukraine, their documentation, information provision, banking, transportation and storage services, weighing and so on.

APWMs are also beneficial for retaile agents, because here they have an opportunity to documente the goods on the purchase day, at a competitive price and under quality controlled.

Nowadays wholesale agricultural products markets Stolychniy (Kyiv), Shuvar (Lviv), "Kopan’" (Kherson), Charivnyk livestock market (Kyiv region) meet the European standards requirements [3]. All the 12 APWM are settled as limited liability companies that prevents the state from effective influencing their work and creates conditions for their conversion to ordinary businesses. As a result, small and medium farmers have no real possibility and feasibility to implement a stable supply of products to the APWM due to the lack of own vehicles, significant shipping costs, mediation flowering, lack of wholesalers, retail etc. [3].

Thus, agricultural producers merger in cooperatives can become the way out of the situation. Owing to this merge farms will be able to receive orders for future farms will be able to obtain orders for future agricultural products and the agricultural and the prepayment. Such cooperation of consumers and producers will enable farmers to draw loans using processing enterprises and wholesale market operators’ property as mortgage, will help producers to plan their production activities according to the order, to stabilize the price situation, provide small producers with access to supermarkets, to form an effective structure of the market monitoring and to provide people with high quality, secure, affordable and fresh agricultural products.

Table 2 – **Number of agricultural service cooperatives (ASC) by January 1, 2015**

ASC activity area	ASC number, units		activity type, units									
			processing		purvey and sales		provision		other		multifunctional	
	registered	acting	registered	acting	registered	acting	registered	acting	registered	acting	registered	acting
Soil cultivation and harvesting	246	147	9	7	14	11	4	3	39	24	180	102
Dairy	288	179	9	2	159	94	4	3	14	5	102	75
Meat production	30	16	3	0	9	5	0	0	6	3	12	8
Horticulture	102	66	2	0	43	23	8	5	10	5	39	33
Grain crops	47	34	7	5	12	5	1	1	3	1	24	22
Other	309	171	11	8	27	17	6	2	108	76	157	68
Total:	1022	613	41	22	264	155	23	14	180	114	514	308

Financial and credit infrastructure of agrarian market has not acquired the proper development yet. In rural areas, there are practically no specialized cooperatives and agricultural banks, as well as credit unions. Despite the fact that the revival of the cooperative movement in the countryside at the state level was declared as one of the priorities of agricultural development for the last three years, agricultural cooperation potential in Ukraine remains largely untapped due to the low level of state support of agricultural service cooperatives, double taxation of service cooperatives, lack of awareness among agricultural producers about their importance for production efficiency [4].

In addition to problems with the products sales, producers are experiencing significant difficulties in grain storage in elevators, which is manifested in high production losses, fraud and receiving principal profit by intermediaries. Under these conditions only large enterprises with significant lobbying capabilities obtain additional benefits. Seasonality of agricultural production creates an uneven load on the transportation and storage systems. Peak periods are associated with congestion of transport and storage. That’s why the issue of quality storage and primary processing of grains, cereals and oilseeds directly at the manufacturer arises today. Because of untimely processing and failure to comply (with) their storage modes and regimes crop quality and food condition are worsened. The greatest losses of grain are observed in the farms having no drying and saving equipment. Meanwhile, in Europe and America yield losses are brought to the technical minimum of 1-2% owing to high post-harvest technologies grain and storage infrastructure.

In Ukraine, the bulk of grain is stored in elevators with the equipment morally and physically obsolete, which results in grain quality and the elevators capacity decrease. The elevators are mostly distant from the grain manufacturers and grain storage costs are very high and make about 25% of grain storage cost. The total capacity of Ukraine granaries, according to the Ministry of Agrarian Policy and Food of Ukraine, is estimated at 45 million tons. However, more than 650 elevators with a total capacity of about 29 million tons and certified vegetables warehouses with the capacity of 550 tons have a certificate of compliance which confirms the quality of the services provided and the proper hardware. Up to 30% of the grown vegetables are lost during storage on account of vegetable stores and processing capacity absence. In order to take vegetable processing industry out of the crisis the Cabinet of Ministers of Ukraine approved the "Concept of vegetable processing industry development", which involves the construction of new greenhouses, modern vegetable stores and processing enterprises close to regional centers in the first place.

104 vegetable stores are being built Ukraine, and it is assumed that the volume of products to be stored in certified vegetable stores will increase to 1.3 mln tons [5].

Grain transportation in the domestic market is conducted mainly by rail, and there is a constant shortage of grain transporter wagons, since these wagons are allotted for transit grain freight, their accumulation at transshipment in the ports and exceeding regulatory deadlines for the wagons loading. An alternative way of grain transportation which allows moving large quantities of grain, cheaper transportation and railroad getting unloaded is waterway transportation. NIBULON company which sets its own logistics system of terminals located on the banks of the river and its own fleet is to reduce dependence on external factors as well as business risks is a positive experience. In general, the company plans to transport up to 3 million tons of grain each year by water transport [5].

Agricultural market operating is impossible without proper information and consultation services given to agricultural producers. The world practice has proved the need for development of advisory services, price monitoring, experimental and demonstration units and so on. Organizational structure of agricultural advisory service should be based on three hierarchical levels: national, regional and local ones.

Project stage documentation is been worked out in Bila Tserkva National Agrarian University today for creation of information and consulting platform for the development of agricultural market infrastructure in Kyiv region and the formation of individual infrastructure elements on a cooperative basis, under ownership and control belonging to agricultural producers.

Thus, agrarian market infrastructure in Ukraine has been in the process of its settling for a long time, it hardly perforsms its functions on creating stable conditions for providing agriculture producers with resources and the products sale. All this causes significant production cost for producers, as well as expences of processors and consumers, loss of state and local budgets.

To solve these problems a fundamental change in approaches to the development of agricultural market infrastructure that should be subject to simultaneous development of its components: marketing, finance and credit, information consulting, logistics, organizational is required. State agricultural policy should contribute to addressing these challenges and aim at agricultural products wholesale markets and logistical support formation; forming the legal framework for introduction of futures trading and upgrading grain warehouse; ensuring the development of a network of agri-trading houses in the form of marketing cooperatives.

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Инфраструктура аграрного рынка: состояние и перспективы развития
Т.В. Сокольская

Осуществлен анализ нынешнего состояния инфраструктуры отечественного аграрного рынка. Доказано, что инфраструктура аграрного рынка в Украине уже длительное время пребывает на стадии становления, практически не выполняет возложенных на нее функций по созданию стабильных условий для обеспечения сельскохозяйственных товаропроизводителей производственными ресурсами и реализации продукции. Все это приводит к значительным потерям производителей, переработчиков и потребителей, потерям государственного и местных бюджетов.

Обоснована необходимость коренного изменения подходов к формированию инфраструктуры аграрного рынка, которое должно осуществляться при условии синхронного развития ее составляющих: маркетинговой, финансово-кредитной, информационно-консультационной, логистической и организационной. Государственная аграрная политика должна способствовать решению этих задач и быть направленной на формирование оптовых рынков аграрной продукции и материально-технических ресурсов; формирование нормативно-правовой базы для внедрения фьючерсной торговли и совершенствования системы складских свидетельств на рынке зерна; обеспечение развития сети агроторговых домов в форме маркетинговых кооперативов.

Ключевые слова: инфраструктура, товарные биржи, оптовые рынки, элеваторы, логистика, информационно-консультативные центры.

Analysis of the current state and prospects of the national agricultural infrastructure market development is made
T. Sokolska

It has been proved that agrarian market infrastructure in Ukraine has been in the process of its settling for a long time, it hardly performs its functions on creating stable conditions for providing agriculture producers with resources and the products sale.

A fundamental change in approaches to the development of agricultural market infrastructure that should be subject to simultaneous development of its components: marketing, finance and credit, information consulting, logistics, organizational is required to solve these problems has been grounded in the paper. State agricultural policy should contribute to addressing these challenges and aim at agricultural products wholesale markets and logistical support formation; forming the legal framework for introduction of futures trading and upgrading grain warehouse; ensuring the development of a network of agri-trading houses in the form of marketing cooperatives.

Keywords: infrastructure, stock exchang, wholesale markets, elevators, logistics, information and counseling centers.

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УКРАЇНСЬКИЙ РИНОК ЯЄЦЬ ПТИЦІ ТА ЙОГО МІСЦЕ В СВІТІ

Досліджено економічний механізм функціонування ринку яєць в Україні і країнах світу. Проаналізовано сучасний стан суб’єктів різних форм господарювання на ринку яєць в Україні; встановлено динаміку змін попиту і пропозиції яєць на вітчизняному ринку залежно від купівельної спроможності населення; здійснено оцінку рівня споживання і