

FACTORS OF UKRAINIAN SOUTHERN REGIONAL GRAIN MARKET DEVELOPMENT

Nataliia SMYRNOVA¹, Hanna DIDUR², Iryna NAIDA³

Odesa State Agrarian University 65012 Odesa Ukraine

ABSTRACT

The composition of Ukrainian grain market subjects has determined. The potential of Odessa region grain market development has considered. The tendencies of growth of grain and leguminous crops sown areas, gross production and productivity of Southern regional grain market of Ukraine on the example of Odessa region have investigated. The dynamics of average prices on Odessa region cereals and legumes market have studied. Problems of Ukrainian Southern regional grain market development have revealed. The key strategic guidelines for Southern Regional Grain Market development have proposed. The components of digital logistics system in the regional grain market development have determined.

Keywords: regional grain market, development, tendencies, grain areas, grain gross production, grain productivity, digital logistics.

INTRODUCTION

Ukraine's grain economy is a strategic and most efficient branch of the national economy. Grain and products made from it are always liquid, as they form the basis of food security of the state.

Natural and climatic conditions and fertile lands of Ukraine promote the cultivation of all grain crops and allow obtaining high quality food grain in sufficient quantities to meet domestic needs and the formation of export potential.

The southern region of Ukraine has significant potential for the grain market development. A special advantage of the region in resolving this issue is still a large area of arable land, which is one tenth of arable land worldwide, which produces various types of cereals, legumes and other crops.

Further development of the grain market requires a thorough economic assessment, revision of a number of positions on technical-technological, organizational-economic conditions of its operation.

In the research process the following *methods* have used: concretization; structural, trend, regression analysis.

RESULTS AND DISCUSSION

The grain market is a system of commodity-money relations arising between its subjects in the

process of production, storage, trade and use of grain on the basis of free competition, free choice of grain sales and pricing, as well as state control over its quality and storage. [1]. The subjects of the grain market are grain producers, grain storage enterprises, subjects of mortgage purchases of grain and intervention operations, accredited exchanges and others (Fig. 1).

In general, the grain complex is the basis for the development of the grain domestic market, bakery, flour and cereals, alcohol, confectionery, feed, bioethanol production and other industries. In some cases, from the economic current to the final sale, the process of grain movement accumulates in itself from 3 to 22 related or by-products, which affect the cost of the final product [1].

By adopting the Law of Ukraine “On Grain and the Grain Market in Ukraine” in 2002 [2], the state determined the priority of grain production and undertook to promote the development and stable functioning of its market. The principles of the state policy on Ukrainian grain market regulation have determined. These are, first of all, the provision of priority budget, credit and investment support to the subjects of collateral procurement of grain and intervention operations, meeting the domestic needs of the state in food, seeds, fodder, technical grain and measures to increase its exports; establishment of a minimum guaranteed price for mortgaged grain; prevention of restrictions on the movement of grain and products of its processing; control over grain quality and storage.

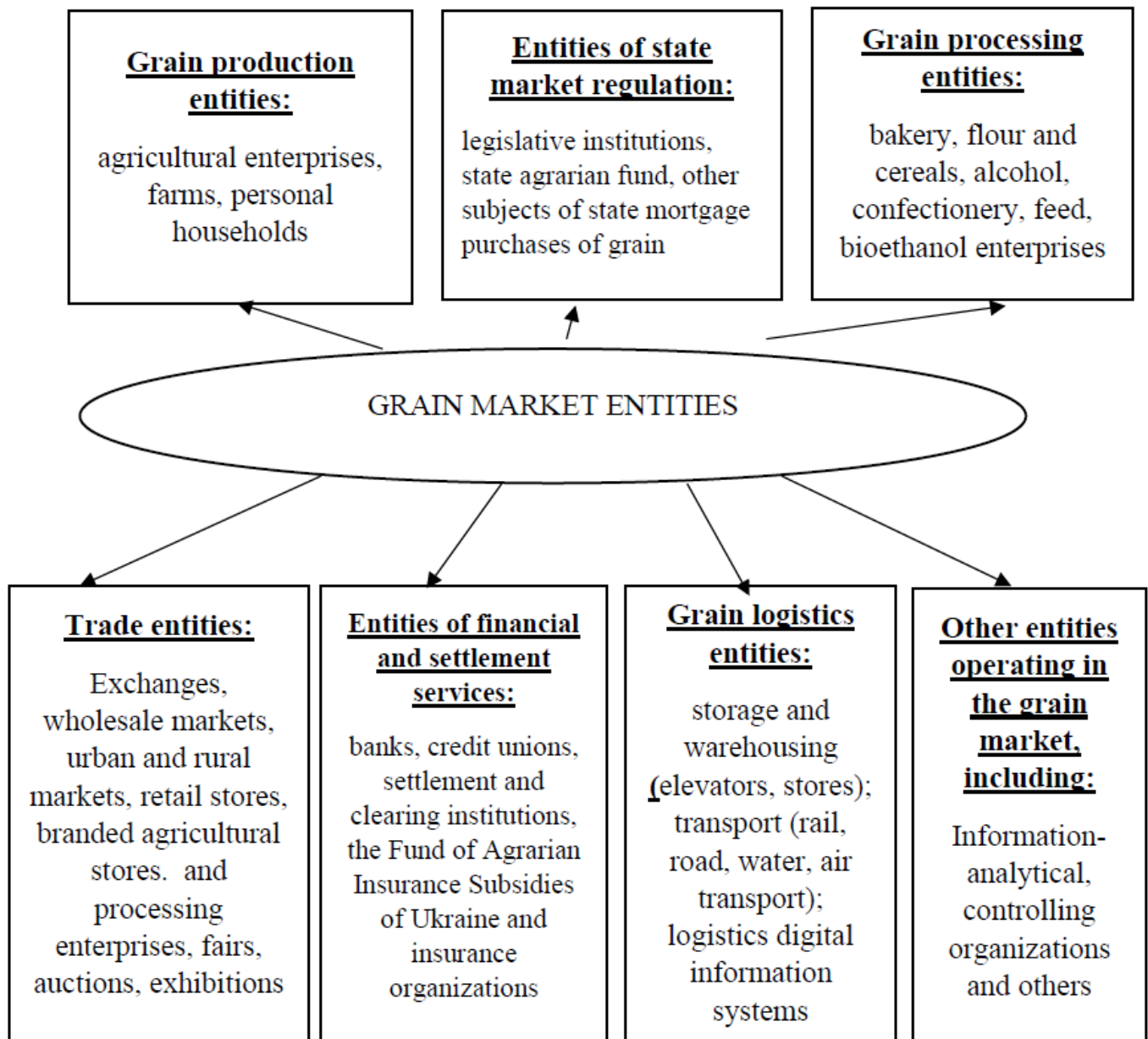


Figure 1. Subjects of the grain market of Ukraine

Source: built by the author¹ and author³

First of all, agriculture in Odessa region is based on the cultivation of cereals, the area of which is shown in Fig. 2.

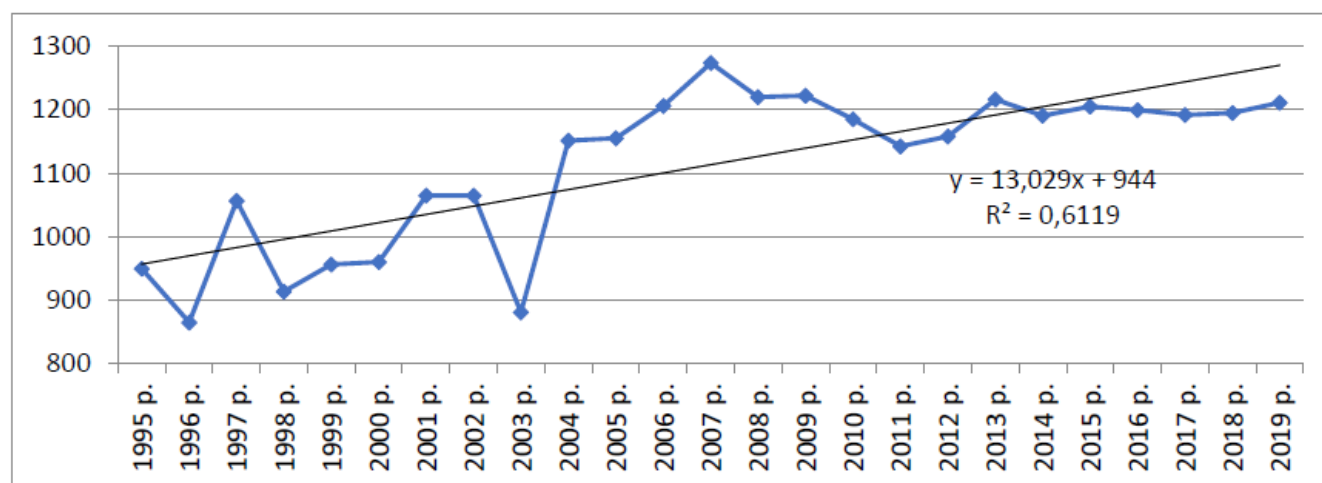


Figure 2. Sowing area of grain and legumes (specified) of enterprises of Odessa region, thousand hectares

Source: built by the author¹ according to the data [3]

The data of fig. 2 show a tendency to increase the sown area of cereals on average per year by 13 thousand hectares. This increase is due to the refusal to grow other crops and to maintain pastures for animals.

Grain production occupies a special place among other branches of crop production. Odessa region occupies a leading position among other regions of Ukraine in grain production, so the level of economic efficiency of growing cereals and legumes significantly depends on the economic level of the region. The dynamics of the indicators (Fig. 3) shows the annual average growth of grain production by 90 thousand tons in the last 24 years.

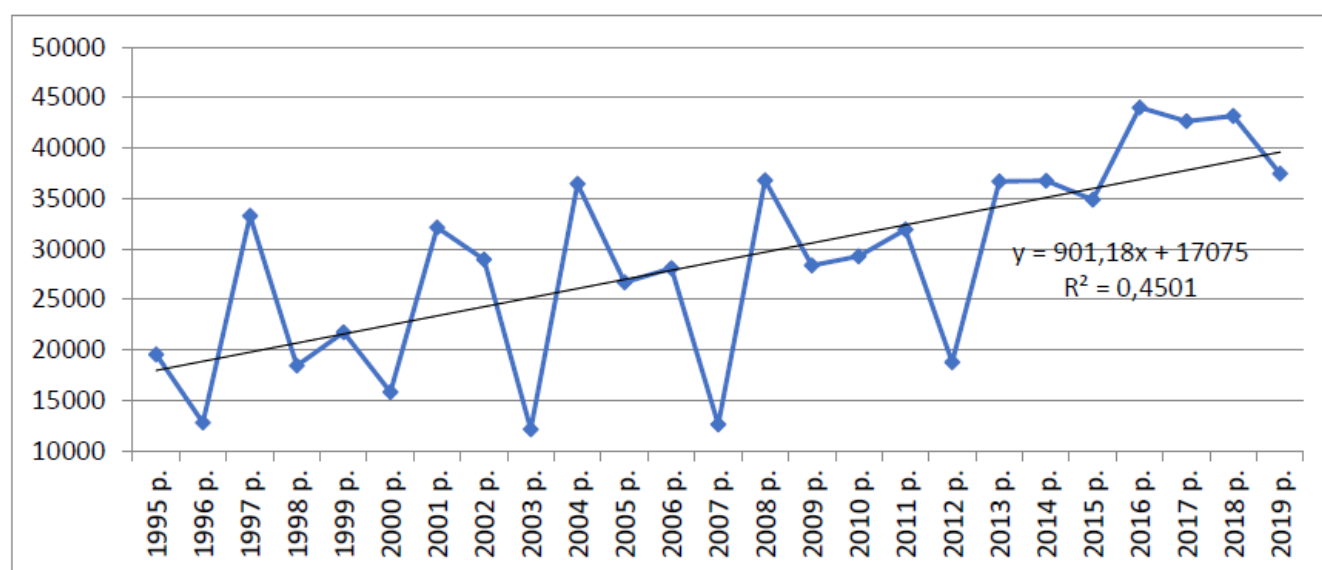


Figure 3. Production of grain by the enterprises of Odessa region in weight after finishing, thousand quintals

Source: built by the author¹ according to the data [3]

Winter wheat and barley were the predominant cereals in 2019. According to the results of 2019, the yield of cereals and legumes in the Odessa region amounted to 31 quintals per hectare (Fig. 4), which is less than in 2018, but shows a tendency to increase by 0.5 quintals/ hectare annually.

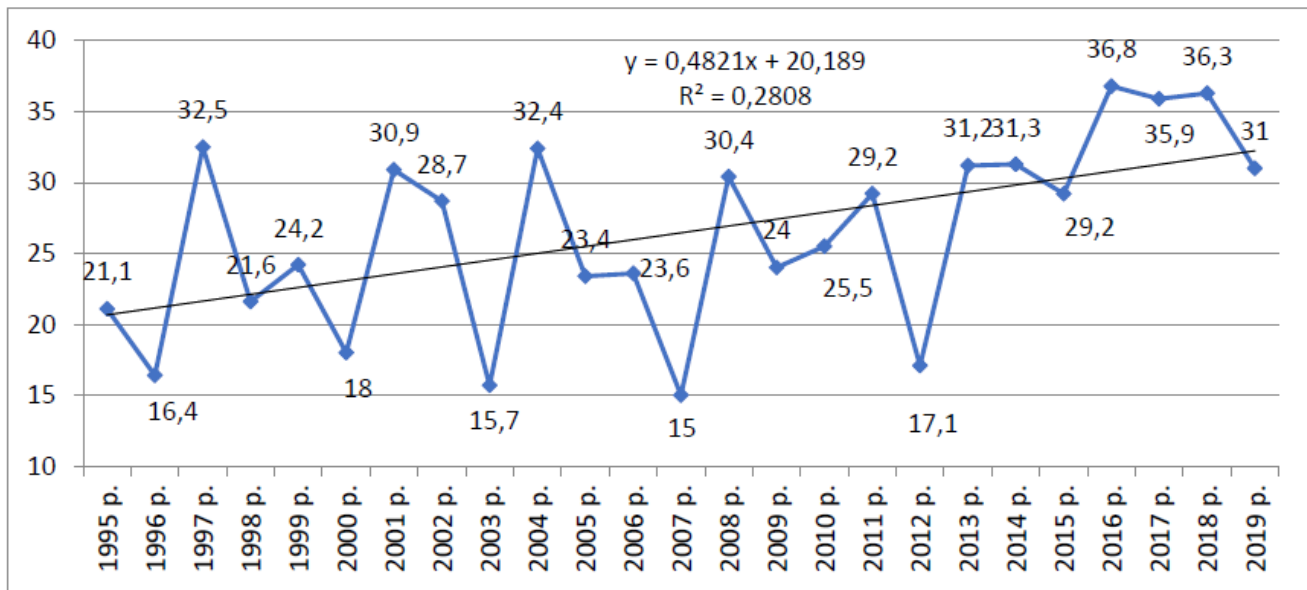


Figure 4. Yield of grain and legumes in the enterprises of Odessa region, quintals per hectare

Source: built by the author¹ according to the data [3]

However, according to grain yield indicators, Ukraine has only 25 results in the world. Most European countries, China, Mexico, Egypt, have the best indicators, and New Zealand showed the highest wheat yield: 9.1 t / ha. At the same time, the share of wheat in the production of agricultural products of our country is 13% [4].

The volumes of gross grain production largely depend on natural and climatic conditions. In 2019 the lowest level of yield among the districts of Odessa region was obtained in the city of Izmail, Reni and Bolgrad districts - that are the driest. The highest yields in 2019 were obtained in Kodyma and Savran districts - the most humid.

In 2020, the situation in the Odessa region was extremely serious with the harvest of winter grain crops due to drought, which could lead to losses of UAH 15 billion. The meteorological center recorded the lowest rainfall in the last 20 years in the region. Low rainfall, dust storms, dry winds, as well as frosts to -9... -11 degrees during the growing season led to the death of winter crops.

Among the most affected farms are Bolgrad, Izmail, Tatarbunary, Kiliya and Reni districts, where 70% of crops died. Crops in Bilgorod-Dniester, Bilyaiivka, Artsyz, Sarata, and Tarutyno districts died on 50% of the area.

In general, the situation on the regional market of grain products is ambiguous. Most farmers deliberately grow agricultural products for further export. They are stimulated to do so by world prices and constant demand for products. Ukraine is the sixth largest exporter of wheat in the world and ranks 9th in terms of production [4].

At the same time, grain prices were constantly growing during the study period (Fig. 5).

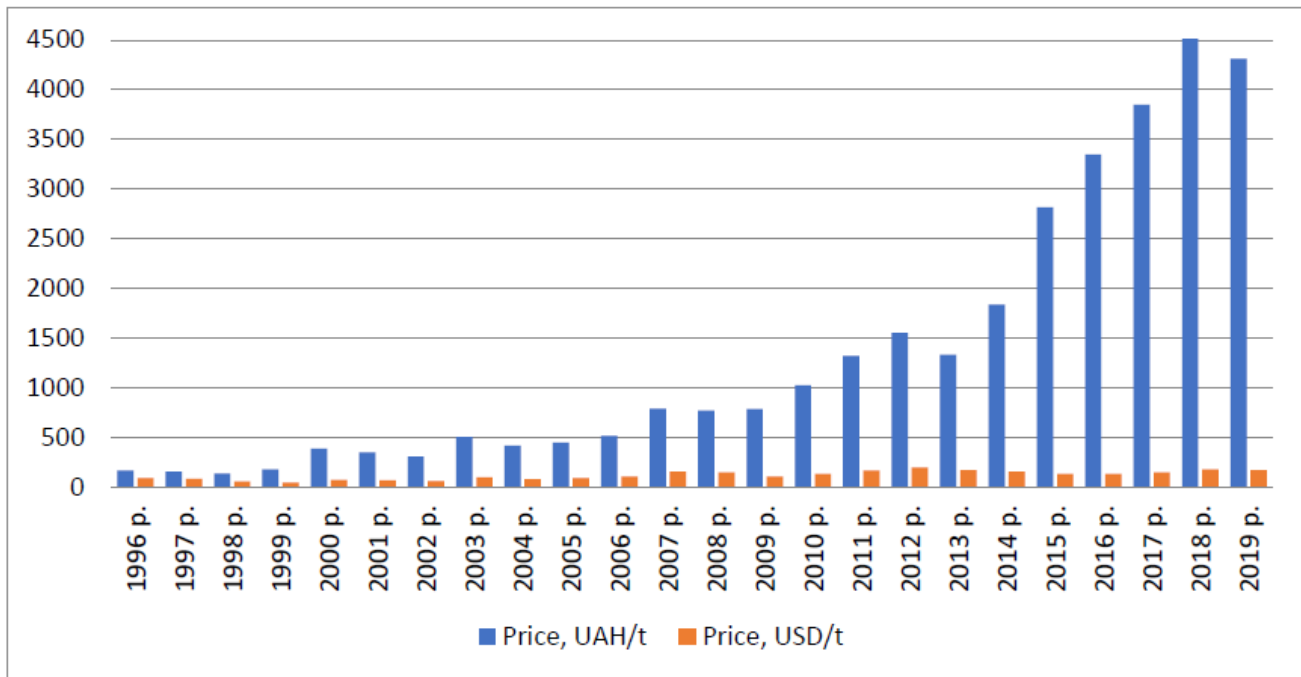


Figure 5. Average prices on the market of cereals and legumes in Odessa region

Source: built by the author¹ and author² according to the data [3]

In the Odessa region, the average price of grain increased in 26,3 times: from 163.9 UAH / t in 1996 to 1313.4 UAH / t in 2019. At the same time, the price in dollars increased only 1.9 times. This is due to the inflationary processes that took place in the country during the study period. The hryvnia became cheaper much faster than the dollar.

One of the important areas of export support is the development of river and sea port elevator systems. With the production of 71 million tons of grain in Ukraine in 2015, there is enough available capacity for its storage, as 9.0 million tons will be produced and used in households, and corn will enter the warehouses no earlier than September, 4.5 million tons of grain will be used for livestock feed and 2.1 million tons - for processing for food and non-food purposes.

However, when grain exports increase to 35-36 million tons, it is necessary to increase its monthly shipment to 3.0-3.5 million tons, which requires the organization of a clear operation of port elevators, or the construction of new capacity by 8.5-9.0 million t [1].

Therefore, an important condition for ensuring the stability of the grain market should be the use of effective mechanisms of state regulation, the essence of which is to ensure a balance of quantitative and qualitative parameters of supply and demand for grain products.

The current practice of regulating the regional grain market of Ukraine does not meet the current needs of increasing the competitiveness of the national grain sector, does not take into account changes in the global environment associated with financial and economic and food crises, and as a result does not offer adequate tools for state regulation of the grain sector.

The relative passivity of the state in ensuring the national economic interests of Ukraine in the world grain market narrows the advantages of national grain producers in competition. Strengthening the role of the state in regulating the economy, which corresponds to the current trend of all leading countries, highlights for Ukraine the need to form and ensure a national export grain strategy focused on critical tasks of foreign economic component of the grain sector and the national economy as a whole [1].

According to the relevant action program, the role of the state in pursuing a balanced foreign economic policy can be significantly strengthened by intensifying public and private initiatives in ensuring Ukraine's foreign economic priorities in the world grain market. The National Grain Export Strategy should be considered as a comprehensive, purposeful, long-term program of state action in domestic and foreign grain markets, focused on implementing and ensuring sustainable and comprehensive development of the national export potential of the grain sector to effectively use it to address strategic issues. Based on the appropriate logic, the following target is needed: increase the profitability of national grain producers based on the use of the effective potential of the European market.

Relevant goals include, firstly, enshrining in the legal field of the relevant document (national grain export strategy), and secondly, the state operator as a significant agent in determining its legal status, called by market methods to influence the price dynamics of grain purchases from national grain producers and to sell the purchased volumes of grain on the foreign market, which will shift the balance of interests in the national grain market towards production and ensure further expansion of trade with EU countries.

Ukraine's main competitors in world grain markets are the United States, Canada, Australia, France, Russia, and Kazakhstan. Increase competition between countries and other grain exporters: Hungary, Poland, Turkey, and Hungary. Therefore, in the domestic grain market it is necessary to develop logistics infrastructure, which is an important prerequisite for strengthening Ukraine's competitive position in foreign markets.

The prospect of developing the infrastructure of the regional grain market in the context of globalization is the creation of digital logistics (DL), which is adapted to the needs of market participants system of data collection and processing in order to rationally use resources and effectively plan them. It consists of three key components - wireless network, service and consulting services, geographic information system and provides market participants with quality information through the use of the latest technologies, as well as the integration of science in DL (Fig. 6).

The digital system must manipulate information in the form of a visual image of the necessary objects, text and digital data, audio messages. Therefore, programmers must choose the appropriate range of digital technologies and software, which are integral elements of the digital system.

Specialists must establish communication and information links between the port, railways, vehicles, manufacturer and trader. The introduction of digital logistics in the grain market of Ukraine has a specific goal - to reduce losses of financial and grain resources in the country. The system must be adapted to the modern needs of market participants and take into account the degree of technological and software changes over a period of time. Digital logistics should be available to every grain market participant. At the initial stage, scientific support of the system operation will be required.

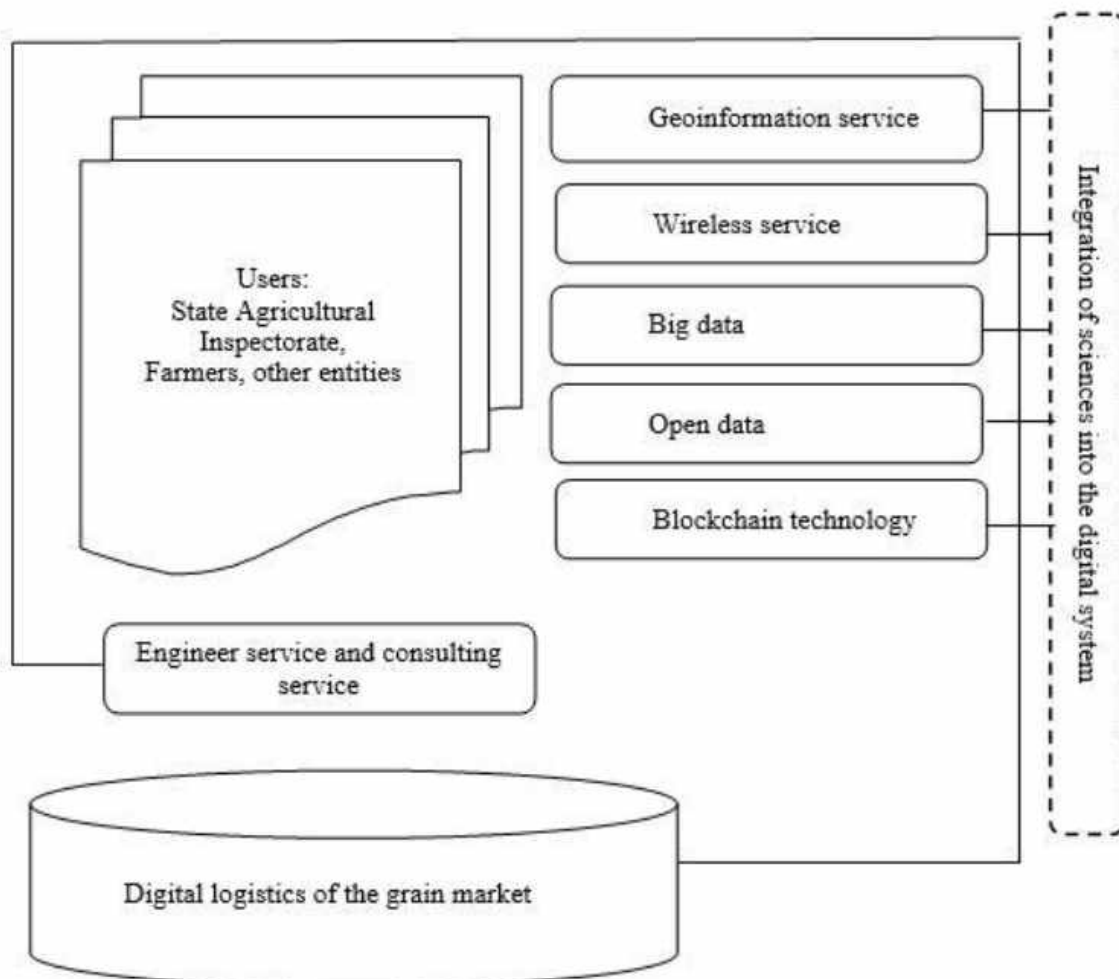


Figure 6. Components of digital logistics of Ukrainian grain market

Source: built by the author¹ and author³ in the base

There will be a powerful information system that will reduce grain losses in Ukraine to 0.99% of total grain production in the country [5]. The state will be able to make the right decisions to regulate the grain market in Ukraine, using operational information, to effectively regulate not only stocks but also grain flows in the country. DL users will be able to maximize profits, which is important primarily for grain producers. Eventually, the culture of grain production and agribusiness in Ukraine will rise to a better level.

The geography of domestic grain exports in the Odessa region is constantly expanding. However, there is global competition in world markets for grain markets among major exporting countries. It should be emphasized that one of the important conditions for the effective functioning of the market is the availability of developed infrastructure. Equally important for the effective functioning of the domestic grain market is also the provision of its participants with quality operational information.

CONCLUSION

Based on the above material, the key strategic guidelines in the regional grain market are the following:

- ensuring the balance of interests of the Ukrainian grain market by regulatory harmonization of the distribution of profits in the chain from grain producer to grain trader, as well as taking into account the interests of the national consumer;
- management of volumes, quality and price of grain products in the European and Asian

markets in order to increase foreign exchange earnings in the region's economy;

–increasing of added value in grain trade due to expansion of national participation in strategic links of logistics and transport networks;

–wide introduction of modern advanced post-harvest technologies in order to optimize commercial and logistical losses in the grain sector of the region;

–introduction of joint consortium international projects in logistics and transport chains and participation in joint ownership of terminals outside the region, organization of direct outlets in promising grain markets of individual countries, expansion of trade with other countries;

–state support for new concepts of entering promising local European markets;

–strategic diversification of national grain markets;

–management of protection of the value of national grain in conditions of unfair competition in the world market (including through the management of national stocks of grain to optimize its value in case of market fluctuations);

–ensuring the quality of grain production by complying with European standards;

–ensuring the systematic and consistent actions of national grain market entities and public authorities in the formation and implementation of annual priorities for grain export trade;

–developing of the of Ukrainian grain market logistics infrastructure.

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