Agricultural market of the Republic of Kazakhstan: trends, problems and prospects for development

Abstract. We consider the main issues of the agricultural section development in the Republic of Kazakhstan. Current trends that are set in the agricultural market and possible solutions are presented, as well as the prospects for the development of the agricultural market. The article discusses the prospects of creating conditions for the production and sale of competitive goods in the agricultural sector of the Republic of Kazakhstan, the international experience in creating effective mechanisms for moving towards sustainable development of the society based on modern agriculture, the progress and employing of sustainable development indicators in the formation and selection of priorities, as well as the strategy for achieving them.

Keywords: Agricultural Market; Economy; Potential; Output; Risk; Competitive Products; Globalization; Integration

JEL Classifications: E24; E41; E64; J43

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Аграрный рынок Республики Казахстан: тенденции, проблемы и перспективы развития

Аннотация

В данной статье изучены основные вопросы развития аграрного сектора в Республике Казахстан. Представлены возможные решения, тенденции, которые задаются на аграрном рынке, а также перспективы его развития. В статье рассматриваются перспективы создания условий для производства и реализации конкурентоспособных товаров в агропромышленном комплексе Республики Казахстан, международный опыт создания эффективных механизмов движения к устойчивому развитию общества на основе современного аграрного сектора, прогресс и применение показателей устойчивого развития в формировании и выборе приоритетов, а также стратегии их достижения.

Ключевые слова: аграрный рынок; экономика; потенциал; выпуск; риск; конкурентоспособная продукция; глобализация; интеграция.
1. Introduction

Agriculture is the most important sector of the economy of any country, serving as a criterion for its economic and social development, which is the guarantor of food security and an indicator of the level of well-being of the population. The country’s developed agricultural sector is considered an indicator of the high development and innovativeness of its economy. The task of any state is to ensure national security, the basis of which is food security. If the state is not able to provide the population with its own food, then all other components of national security are not significant (Akhmetova & Tulegenova, 2015).

Food security is part of the concept of national economic security, its task is to maximize the satisfaction of the needs of the population and the creation of sufficient state reserves. In many ways, the development of agriculture determines the level of economic security of the country, and without ensuring general economic security it is impossible to solve internal economic and social problems, influence and respond to ongoing world processes, and defend the country’s state interests on the world stage. Therefore, the problem of food security should be considered in close connection with the ongoing reforms in the agricultural sector and in conjunction with the mechanism for solving economic security. In particular, the domestic market has a high share of imports, in the structure of exports, commodities prevail: mineral resources and grain (79.3% of Kazakhstan’s total exports in January 2015), which makes the economy.

We are faced with a very important and responsible task - to raise the domestic agricultural sector of the economy to a qualitatively new level of development, to ensure the promotion, first of all, of domestic products, which is especially important in the context of the country’s integration within the EAEU (Almukhamedova, 2019). According to the Committee on Statistics, the agricultural sector for the period January-April 2015 as a percentage of January-April 2014 showed a growth of 2.9%. The task of the Government and the relevant ministry is to create conditions for maintaining the pace of sustainable development of the agricultural sector that has developed in recent years, the maximum import substitution of agricultural products based on modern technologies in accordance with international standards.

The agricultural industry of Kazakhstan has always been considered the basic component of the national economy. The basis of this situation is a number of advantages that the republic has:

• the presence of a huge territory. In terms of arable land per capita, Kazakhstan ranks second in the world.
• becoming one of the major exporters of grain and flour;
• growing demand for food products among neighboring countries (China, Central Asia, the EAEU and the CIS).

For 12 months of 2018, the share of agriculture, forestry and fisheries in the country’s GDP was 4.2%. It should be noted that in the late 1990s this indicator was at a higher level - 8-9%. (Gross domestic product by production method for January-December 2018). According to the results of last year, the aggregate output grew by 3.4%, crop production accounted for 53% of the gross output of agricultural products (services), livestock - 47% (Gross output of products (services) of agriculture, forestry and fisheries for 2018-2019). About 1,226.7 thousand people or 14% of the employed population work in the industry, while about 42% of the total population lives in rural areas (Employed population by main types of economic activity (quarterly data) 2010-2018).

At the end of 2017, in crop production, a traditionally significant share of output in value terms was accounted for by cereals (excluding rice), legumes and oilseeds, as well as vegetables and melons, root crops and tubers. In the northern regions, spring wheat, oats, barley are grown, vegetable growing, melon cultivation and a number of industrial crops are developed - sunflower, flax, tobacco, etc. In turn, in the south of the country, cotton, sugar beets, yellow tobacco, rice; fruit orchards and vineyards.

Most of the profits from the sale of products go to intermediaries and brokers. Lack of physical infrastructure such as packaging, transportation, conversion industries, etc., increases product failure and decreases profitability among rural households, and marketing of rural products as a complex process. Has become a problem. Due to the relationship between marketing of agricultural products and rural development and the role that product marketing can play in increasing the income and economy of rural households in this city, addressing the problems and challenges facing farmers in marketing products, it is necessary. Therefore, in this study, the barriers and challenges of marketing agricultural products have been studied (Almukhamedova, 2019). A review of studies conducted in the field of analysis and prioritization of barriers to mar-
Marketing of rural agricultural products shows that less attention has been paid to this issue in the field of rural geography, but more research has been done in the fields of agricultural economics and management and marketing. «It should be noted that most of the research conducted in the field of marketing of agricultural products is related to India.» The following are some of these studies and their results (Zakariyanova (2014), Mizanbekova et al. (2017), Smagulova (2016), Bekkhozhaeva (2017), Mizambekova (2019), Syzdykova (2019)).

2. Materials and Methods
In order to ensure sustainable industrial and innovative development of the Republic of Kazakhstan, the creation of conditions for the production and sale of competitive products is the main direction of development of the agricultural sector. Agricultural production has advantages that can be used in the production of competitive food products: the presence of vast areas of land and labor, a favorable climate, and the ability to produce environmentally friendly products. However, in agricultural production, a low level of technical equipment, insufficient investment in fixed assets, and disparity in prices for industrial and agricultural goods, which lead to a decrease in the efficiency of the agricultural sector, remain (Narenova & Baitilenova, 2017).

The experience of most developed countries shows that agricultural production is not able to develop effectively without significant amounts of state financial support: the amount of subsidies to agricultural producers does not exceed 10% in the structure of costs of production of foreign countries; there is no full supply of elite seeds and pedigree cattle; transport expenses for export products (export subsidies) are not reimbursed; compensation is not sufficiently compensated for obtaining loans for the purchase of agricultural machinery and equipment, reconstruction, and technical re-equipment of agricultural production facilities.

In the conditions of fierce competition in the world market, the optimal and effective resolution of problem tasks becomes especially important. The current state of the global economy shows that the availability of rich raw materials does not guarantee the sustainability of economic development and the high level of well-being of society. Countries whose economies were based on the export of raw materials are more likely to experience economic shocks, and human capital development remains low. Analysis of the world export structure shows that about 87% of it is occupied by finished goods and 13% is raw materials.

The economy of Kazakhstan is characterized by a raw material orientation and insignificant integration with the world economy, especially in the agricultural sector, and the underdeveloped production and social infrastructure. The situation in the agricultural sector of the republic is characterized by instability and low competitiveness, high cost of products and food, low payback, misallocation of land, labor and material resources in the production of products (Deberdeev & Idrisov, 2000). In fierce competition for sales markets, grain and its processed products are competitive in the world market. The pace of globalization and integration into the global economic system pose new requirements for its sustainability. International experience indicates that effective mechanisms for moving towards sustainable development of society are the development and implementation of indicators of sustainable development in the formation and selection of priorities (Narenova & Baitilenova, 2017).

The agricultural market of Kazakhstan is characterized by significant potential opportunities for further growth in production volumes. The main condition for growth is a corresponding increase in investment in the industry, the introduction of advanced technologies, the application of scientific achievements aimed not only at reducing costs, but also at large-scale growth in product quality in accordance with current international standards. The agricultural sector of the economy of Kazakhstan not only ensures the food security of the country, which acquires a special role in overcoming the global economic crisis, but also improves the social situation of the Kazakh population. This is due to the following factors:

- Residence of almost half of the population (43.5%) in rural areas;
- The high role of agricultural production in ensuring self-employment of personal subsidiary plots;
- Providing opportunities for the successful development of domestic food markets as markets for essential goods in comparison with goods of other sectors of the state economy.

Since the development of agriculture directly determines the process of functioning of the agricultural market, there is a need for a SWOT analysis of the agricultural sector of the economy of Kazakhstan (Table 1 and Table 2).
The strengths of the agricultural section development of the economy are as follows:

- Annual growth of gross agricultural product;
- The country is a dominant in the wheat and wheat flour and oil flax production;
- Agribusiness of Kazakhstan gets the clear state support;
- Possibility for the production and the organic goods export.

Weaknesses in the development of agriculture in Kazakhstan are:

- Low animal productivity and productivity of the main crops;
- Low labor productivity and the level of profitability of business entities;
- Low implement ability of R&D and dissemination of modern agrotechnological knowledge;
- Low efficiency of the financing and insurance system.

The situation that has developed in the republic’s agriculture in the course of agrarian transformations makes it necessary to develop fundamentally new approaches to solving the problems that today are of prime importance on the way of development. In this regard, while maintaining solvency, liquidity and creditworthiness, and proposing effective ways to overcome obstacles in the agricultural sector, it is necessary to take into account that the ultimate goal of managing in
the market is the receipt by agricultural producers of a certain amount of profit sufficient for extended reproduction.

3. Results and Discussion

Currently, the main thing in agricultural production is ensuring the competitiveness of products, the economic efficiency of their production and sales, and ensuring food security by providing quality products in the right amount for various categories of consumers in the domestic and foreign markets. In this aspect, the issues of forming a clear and understandable model of the functioning and development of the production system of the agricultural organization, which will improve the efficiency of production and commercial activities, as well as ensure the social responsibility of producers in relation to consumers, become relevant.

To identify problems and prospects for the development of the agricultural market of Kazakhstan, the method of situational qualitative analysis (SWOT analysis) was also used.

The results of the analysis of the practice of formation and development of the agricultural market of Kazakhstan are summarized in the matrix of the SWOT analysis (Table 3).

Table 3: SWOT Investigation of the agricultural market

<table>
<thead>
<tr>
<th>Strengths (S)</th>
<th>Weaknesses (W) - Problems</th>
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<tbody>
<tr>
<td>the presence of a unique bioclimatic potential;</td>
<td>low technical equipment, outdated machinery and equipment;</td>
</tr>
<tr>
<td>the presence of a sufficient number of sown areas;</td>
<td>violation of the soil protection system of agriculture, reduction of land fertility;</td>
</tr>
<tr>
<td>available scientific base;</td>
<td>non-compliance with the agrotechnical deadlines for the performance of work, storage, transportation, etc.;</td>
</tr>
<tr>
<td>developed transport network (roads and railways);</td>
<td>low return on land resources, which affects the cadastral price of agricultural land;</td>
</tr>
<tr>
<td>the presence of a machine and tractor station;</td>
<td>lack of formation of a full-fledged market for agricultural land;</td>
</tr>
<tr>
<td>provision of equipment on a leasing basis;</td>
<td>imperfect structure of agricultural production;</td>
</tr>
<tr>
<td>preferential credit resources for agricultural work;</td>
<td>lack of funds for the purchase of certified seeds, fertilizers, herbicides and agricultural machinery;</td>
</tr>
<tr>
<td>state participation in the purchase of grain through the Food Corporation;</td>
<td>disparity in prices for agricultural and industrial products;</td>
</tr>
<tr>
<td>diversification of crop production;</td>
<td>inaccessibility of loans;</td>
</tr>
<tr>
<td>livestock development;</td>
<td>underdevelopment of exchange trading;</td>
</tr>
<tr>
<td>excess of actual production over consumption for the main types of products on the agricultural market;</td>
<td>insufficient state financial support;</td>
</tr>
<tr>
<td>the attractiveness of the agricultural land market for investors (compared with other countries);</td>
<td>low labor potential;</td>
</tr>
<tr>
<td>the presence of competitive advantages among producers of grain, oilseed and potato products.</td>
<td>high proportion of imported food products (beef, pork, fish, dairy products, cheese, vegetables and fruits);</td>
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Opportunities (O) - Prospects

<table>
<thead>
<tr>
<th>Opportunities (O) - Prospects</th>
<th>Threats (T)</th>
</tr>
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<tbody>
<tr>
<td>growth in demand for grain as a result of entering new markets;</td>
<td>rising prices for energy, fertilizers, etc.;</td>
</tr>
<tr>
<td>increase in government financial investments in agriculture;</td>
<td>reduction of prices for agricultural products;</td>
</tr>
<tr>
<td>development of exchange trading;</td>
<td>change in world market conditions</td>
</tr>
<tr>
<td>increase in productivity due to full compliance with agricultural technology with the introduction of mineral fertilizers, the use of plant protection products;</td>
<td>adverse weather conditions;</td>
</tr>
<tr>
<td>increase in prices for agricultural products;</td>
<td>widespread infectious diseases of plants;</td>
</tr>
<tr>
<td>ensuring high quality agricultural products.</td>
<td>development of monopolized structures in the field of production and processing of agricultural products;</td>
</tr>
</tbody>
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Source: Compiled by the authors

Figure 1 shows the forecast of the basic quantitative indicator - gross agricultural output, which reflects the saturation of the agricultural market prepared for sale by agricultural products.

The construction of the model of the exponential trend of the gross agricultural output of the Republic of Kazakhstan demonstrates a stable growth of this indicator in the perspective period: in particular, in 2022, the volume of gross output can reach 6.8 billion tenge. An approximation value of 0.9352 indicates that the exponential model matches the original data.

The dynamics of exports of various agricultural products demonstrates a different trend, expressed in the multidirectional changes in indicators in different years of the analyzed period. Therefore, in order to fulfill the forecast for the sale of cattle meat for export, we will use the polynomial smoothing method (Figure 2).

Despite a multidirectional change in the indicator, an approximated forecast also indicates an increase in meat exports in the forecast period. Deliveries of meat products (cattle meat) for export may amount to about 2700 tons in 2021, more than 3000 tons in 2022. The volume of retail trade in food products in the agricultural market of Kazakhstan is also steadily increasing (Figure 3).

According to the forecast model, in 2020 this figure will be 3,500 billion tenge, in 2021 - 4,000 billion tenge, in 2020 - 4,200 billion tenge.
Figure 1: Forecast model of the exponential trend of the gross agricultural output of the Republic of Kazakhstan
Source: Compiled by the authors

Figure 2: Forecast model of polynomial trend of cattle meat export from Kazakhstan
Source: Compiled by the authors

Figure 3: Predictive model of the exponential trend of the volume of retail trade in food products in the agricultural market of Kazakhstan
Source: Compiled by the authors

Figure 4 shows the promising dynamics of investment in fixed assets of agar producers. Over the past 10 years, the volume of investments has increased by 4.5 times, which confirms the further growth of this indicator, which may reach over 600 billion in 2022. Figure 5 presents the dynamics of labor productivity in agricultural production.

An analysis of the dynamics of labor productivity and the calculation of the growth rate of this indicator made it possible to calculate the average growth rate (18.4), using which the forecast for the future was made using the extrapolation method (Figure 6).

The labor productivity of agricultural market participants shows an upward trend in the promising period of 2020-2022.
4. Conclusion

Marketing of agricultural products is one of the ways to accelerate the development and progress of villages, which increases the income of rural households, increases welfare, increases empowerment, and increases the quality of life of rural households. If it is made with the awareness, rural management and with the collective and integrated efforts of farmers, intermediaries, researchers and managers, it can lead to comprehensive and sustainable rural development. Assessing and prioritizing the barriers and challenges of marketing rural agricultural products due to the many limitations that exist in this field is one of the important measures in this regard. Regarding the state support, the scaling of agricultural goods, meeting the need for basic types of food and participation in world business, Kazakhstan’s agriculture still has significant problems. Therefore, for the further qualitative development of agriculture in the Republic of Kazakhstan, it is necessary:

- increase the level of agricultural productivity, by means of increasing volumes (modernization);
- improve the marketing infrastructure for agricultural products.

Thus, the agricultural market of Kazakhstan is characterized by successful prospects for further development, provided that the identified problems are addressed in a timely manner. Among such ways, ensuring the competitiveness of the subjects of the agricultural market by increasing the efficiency of resource use, as well as their focus on high standards of production and sales of agricultural products, are paramount.

References