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The formation of a mechanism to improve the competitiveness of the sugar industry in the Republic of Kazakhstan

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Abstract. Agriculture plays an important role in the development of any country, which makes it important to study and consider the peculiarities of its development. One of the components of the agricultural sector is the sugar industry, which makes its analysis relevant. Thus, the research aims to form methods for increasing the level of competitiveness of sugar industry products. The study was conducted within the framework of the Republic of Kazakhstan, considering the features that characterize the development of the industry in the country. The main method of the study can be considered modeling. In addition, it is worth noting the analysis, historical method, induction, and others. Thus, the research considered the main trends in the volume of beet cultivation in Kazakhstan. It was shown that the number of tons of production in a section of 1 hectare in the country increases over time, which is a good indicator of the development of the industry. The mechanism

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of increasing the competitiveness of sugar products was also shown and substantiated. The authors concluded that it is possible to reach better results for the enterprises of the sector if the state has a more active influence on the activity of the companies in the aspect of economic assistance, as well as if it provides technological infrastructure development, personnel training, an increase of production possibilities, usage of new varieties of beet for increasing the level of fertility, etc. Thus, this study creates new knowledge in the context of studying the peculiarities of the state-stimulating policy, as well as provides an opportunity to take a different look at the sugar industry market in Kazakhstan, and the features of its development

Keywords: entrepreneurship; management; macroeconomics; market research; agriculture

INTRODUCTION

Agriculture plays a key role in the development of the country. It is the main source of food, providing the population with the necessary food resources; it contributes to the reduction of unemployment, providing employment for many people, especially in rural areas; it is a resource base for other sectors of the economy. All this is the reason why so much attention is paid to the development of this component in modern economic literature. However, the agricultural sector as such accommodates the production of many types of products, one of which, in particular, is sugar production. In the framework of this study, its current state and possibilities of improvement were studied on the basis of the data of Kazakhstan.

Sugar is a very common and frequently used product in everyday life (White, 2018). Most of it is made from sugar cane, as this is the cheapest way to produce it. Therefore, it is not surprising that its biggest suppliers in the world are Brazil, India, Thailand, China, Pakistan, Vietnam, and similar countries. At the same time, highly developed countries, particularly Australia, Ireland, and Denmark, remain its biggest consumers (Nguyen *et al.*, 2022). Sugar production, although less efficient, is also possible with other crops, in particular – beets, which are grown in Kazakhstan. In this case, the global distribution of production of this product by culture is as follows: about 9 countries produce sugar simultaneously from cane and beet, 43 – only from beet, and 71 – only from cane.

Sugar production is inherently one of the components of the agricultural sector. Nevertheless, it has some peculiarities related to the industry and the peculiarities of the crop (Honma *et al.*, 2020). For example, sugarcane is very sensitive to the external environment, which produces frequent fluctuations in supply and price in the international market (Zhao *et al.*, 2020). In addition, there has been a recent overproduction of this product worldwide along with its denial of the new crop as a failure and the increased use of sugar substitutes (Voora *et al.*, 2020; Leal & Teodoro, 2020).

Although the sugar industry is the leading industry only in some countries, its product is produced in one quantity or another almost everywhere. Sugar production in Kazakhstan is not very high: in 2012 it was 6%, and in 2022 – 7%, which makes the country virtually

import-dependent (Akaeva, 2022). Thus, it is relevant to consider in more detail the current state of the sugar industry in the Republic of Kazakhstan (RK), as well as to describe the possibilities of increasing its competitiveness. The study of the current state of the sugar industry and the prospects of its future development has engaged many scientists. It is worth noting the work of N. Aguilar-Rivera (2022), which considered some features of the functioning of the sugar industry in the world, as well as evaluating the future of the industry. Q.U.A. Raza *et al.* (2021) also studied the general trends of the industry in the world.

As such, the research aims to form a certain set of rules and principles to increase the competitive advantages of sugar industry products in the Republic of Kazakhstan. The object of the article is the sugar industry and the activities of its subjects.

MATERIALS AND METHODS

The main method that was used in the study was analysis. The reason for this was the significant amount of processed information, as well as the conclusions formed on its basis. In addition, an important role is played by the historical method, due to the study of trends in the development of sugar beet sugar production in the Republic of Kazakhstan. It is also worth noting that the work widely used the method of induction to form general conclusions about the state of the sugar industry in the country based on certain known facts about it and its characteristic statistical data. Also widely used statistical method of research for processing data arrays, as well as the graphical method for their simplified and more convenient image and subsequent analysis.

The method of modeling was primarily used in the research. It was used to describe the mechanisms of increasing the competitiveness of Kazakhstan's sugar industry, the authors built a model of changes in the price and sales volumes of these products, depending on the selected mechanisms of redistribution of funds within the state budget. It is based on the standard interaction between supply and demand but considers the influence of international actors on the domestic market. In general, the model used in this work can be depicted as follows (Fig. 1).

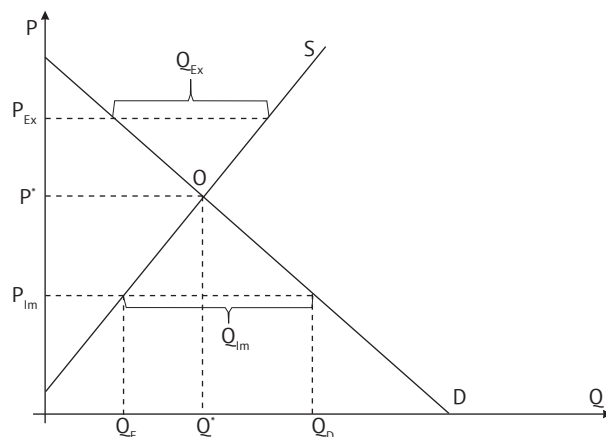


Figure 1. General view of the supply and demand model in the country's market

Note: P – price; P^* – equilibrium price; P_{im}, P_{ex} – domestic market price provided that the country is an importer/exporter; Q^* – volume produced by enterprises under conditions of no trade; Q_E – volume produced by domestic enterprises under free trade; Q_D – demand for sugar under conditions of free trade; Q_{im}, Q_{ex} – imported/exported volume of goods; S – demand curve; D – supply curve

Source: compiled by the authors based on the Sugar Market of the Republic of Kazakhstan (2022)

Figure 1 shows that the model used in the research is based on the typical interaction between supply and demand in the domestic market but considers the factor of the foreign sector (the outside world or abroad). It considers imports (if the international price is $P_{im} < P$) or exports (if the international price is $P_{ex} > P$) and their impact on the welfare of domestic producers, consumers, and the government budget. Thus, the country establishes an equilibrium not at the level of $S = D$ and with a price P^* , but at another, which is formed considering imported or exported goods. In this case, domestic demand is satisfied at the level of Q_D , and supply – Q_E . If the country is an importer, consumers of such products are at an advantage by consuming cheaper products, while producers are at a disadvantage because they produce fewer products at a lower price than they could (in the case of an exporter, the situation is the same). A similar situation is observed in the sugar market in Kazakhstan since the production of these products is in fact in any case less efficient than that

imported from abroad, which is discussed in more detail below.

RESULTS

The main entities directly producing sugar are the Burundai sugar factory, the Yeskeldy sugar factory, the Koksusugar factory, the Merken sugar factory, the Taraz sugar factory, and the Aksu sugar factory. At this time, it can be stated that the domestic capabilities of the country, as well as the production capacity of the above-mentioned plants, do not allow to fully provide the domestic market with sugar. In addition, the sugar industry in Kazakhstan is not in a better position compared to its competitors at least because only beets can be grown in the country, due to the existing peculiarities of the climate. Sugar production from cane is indeed more efficient than from beet. The main regions where beet is grown are Almaty and Zhambyl regions (beet is also grown in the Pavlodar region, but the volumes are too low, less than 1% of total production). Thus, it is possible to trace the volume of beet cultivation in the country (Fig. 2).

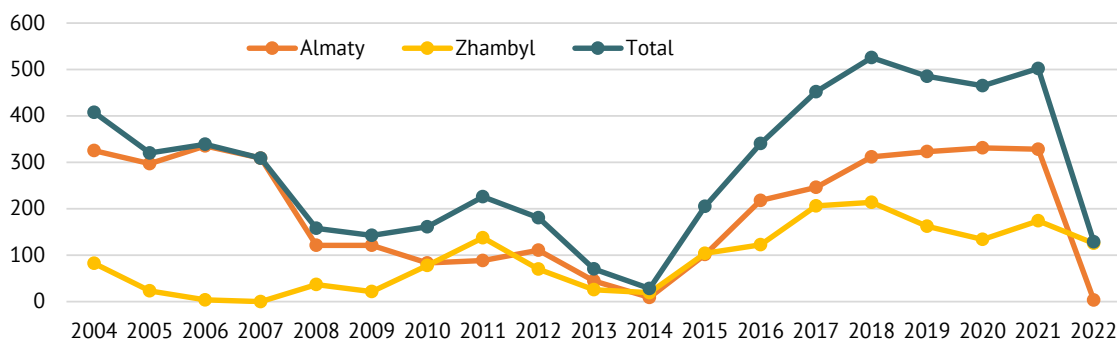


Figure 2. Volumes of the gross harvest of sugar beet in Almaty and Zhambyl regions in 2004-2022, thousand tons

Source: compiled by the authors based on the Sugar Market of the Republic of Kazakhstan (2022) and Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan (2023 a, b)

As can be seen from Figure 2, the volume of sugar beet harvesting in the main regions of Kazakhstan was declining until 2014 and has now started to recover.

However, this is still not enough: according to approximate data, approximately 4 million tons of

sugar beet need to be grown to meet the demand for sugar in the RK in the amount of 450-500 thousand tons: thus, in 2020, only 10% of the desired result was grown in Kazakhstan (QazTrade, 2020). In addition, the area planted with sugar beets in the RK changes significantly from year to year (Fig. 3).

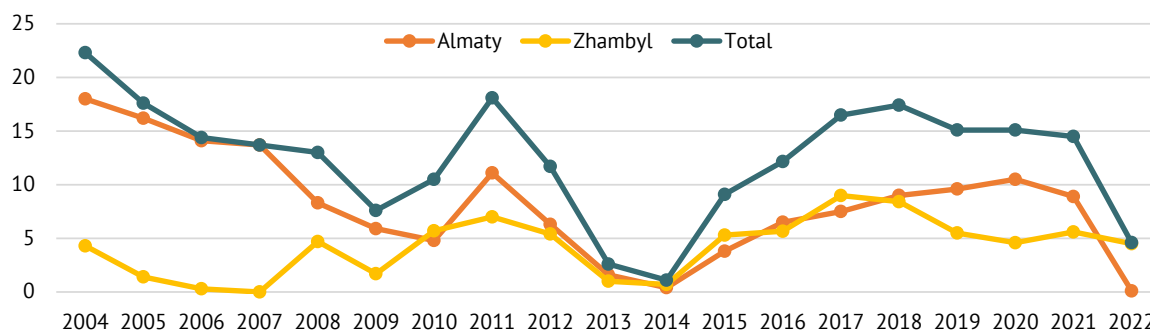


Figure 3. Dynamics of change in sugar beet sown areas in the main beet-growing regions of Kazakhstan in 2004-2022, thousand hectares

Source: compiled by the authors based on the Sugar Market of the Republic of Kazakhstan (2022) and Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan (2023 a, b)

As can be seen from Figure 3, the dynamics of sugar beet acreage in Kazakhstan vary from year to year, similar to the graphs in Figure 2, on the grown volumes of

sugar beet in these regions. However, the most important data for us are the volumes of sugar beet cultivation per 1 ha of land (Fig. 4).

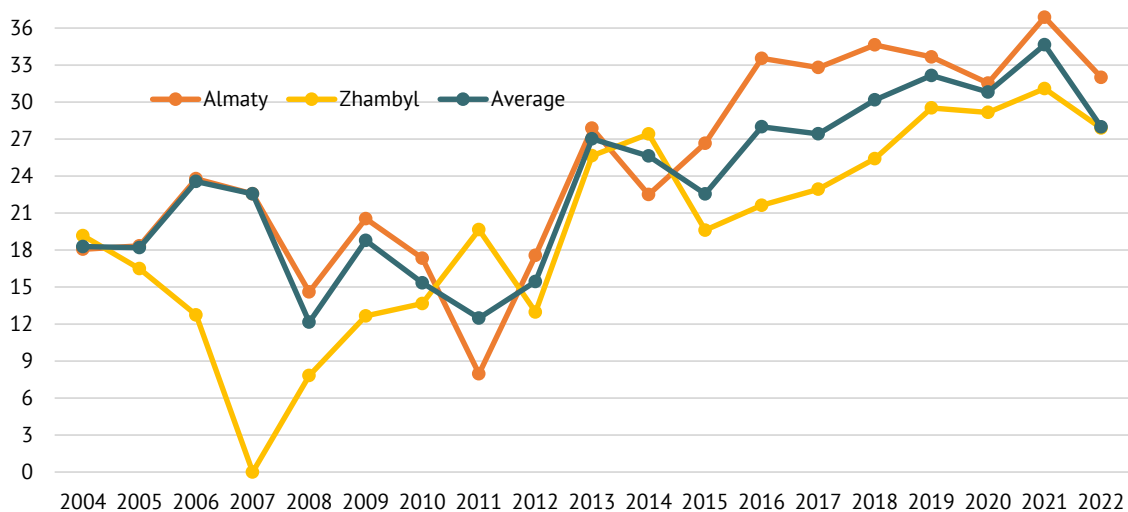


Figure 4. Dynamics of change in the average productivity of sown areas in Kazakhstan in 2004-2022, tons/ha

Source: compiled by the authors based on the Sugar Market of the Republic of Kazakhstan (2022) and Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan (2023 a, b)

As can be seen from Figure 4, there has been an increase in crop productivity in the country: on average, 53% more sugar beets are being produced per hectare in Kazakhstan than in 2004. This can be seen from the trend line showing the trend in crop productivity. The territories of the Almaty region are more productive, and the Zhambyl region is less productive. This trend is positive, but such results are still not enough to fully provide the country with sugar. So, provided that the

amount of land on which beet will be grown stays at the same level as in 2021, enterprises in Kazakhstan will have to increase their output by 10 times to meet domestic demand. Although such results seem unrealistic, further work in this direction is important to increase the competitive ability of the industry.

It is worth noting that the formation of methods for improving the competitiveness of enterprises in the sugar industry can be considered from at least two points

of view: the state and the company. The reason for this is that the actions that a company can take to increase its abilities in the market and the state are significantly different. Thus, companies act selfishly and aim only to increase their position in the market, using the peculiar methods available to them, while the authorities look at

the situation of the industry globally and aim to increase its general well-being. It should be noted that the formation of public policy is prioritized. In order to describe the strategy for improving the competitiveness of the sugar industry in the country, it is necessary to first describe the main factors that will be used in its formation (Table 1).

Table 1. Description of the main factors affecting the competitive ability of enterprises from the company's point of view

Factor	Factor description
Economic	Financial policy
	Price policy
	Management
	Logistics
	Marketing
	Other
Technology-innovation	Newest production technology
	Digital technology
	Personnel training
Social	Achieving the goals of sustainable development and corporate social responsibility

Source: compiled by the authors based on research by A. Nowak and M. Rozanska-Boczula (2022)

In Table 1 the main factors for increasing the competitiveness of enterprises were provided. The actions available to improve position in the market are within the microenvironment. In Table 1, only 3 main groups of factors (levers) through which enterprises can directly manage their competitive advantages are noted. These are economic (change of financial or pricing policy, improvement of marketing campaign or basic processes of enterprise management), technological, and innovative (raising funds for the purchase or independent production of innovations to improve the process of production, recruitment, and training of highly skilled employees in enterprises) and social. The last factor is worth more detail: in modern economic science it is believed that if a company adheres to the principles of sustainable development and corporate social responsibility (CSR), it becomes more competitive in the eyes

of customers (because it improves the company's image among consumers).

In addition, such companies are often able to receive subsidies from the state budget or orders. Nevertheless, the consideration of this factor in our case is not important as the main reason for the low efficiency of the sugar industry in Kazakhstan compared to other countries is the inability to grow sugar cane on its territory. Thus, companies in the industry should, first of all, pay attention to how to improve the technology of production and reduce the cost of production. Achieving a higher level of efficiency can also be achieved by changing some improvements in the procedure of its production, and making decisions in the context of micromanagement. In turn, it is possible to show how the state can influence the competitive ability of enterprises with the help of Table 2.

Table 2. Description of the main factors affecting the competitive ability of enterprises from the government's influence point of view

Factor	Factor description
Economic support	Tax benefits
	Reduced lending rates
	Securing government contracts
	Providing guarantees to investors
Legal support	Providing a simple and clear regulatory framework
Technological	Formation of technological infrastructure for the development of innovative technologies
	Providing a high level of education for all kinds of professionals
Cooperation factor	Ensuring a high quality of interaction between the state and enterprises, understanding their basic needs and opportunities

Source: compiled by the authors based on the study by Z. Muhamamd et al. (2020)

Ensuring a high quality of interaction between the state and the enterprises, understanding their basic needs, and the need to develop the enterprises of the sector. As can be seen from Table 2, the factors affecting the development of the sector are both similar and different from those provided in Table 1. Thus, the state should provide economic assistance to selected companies (through tax incentives, lowering of credit rates, and other instruments), legal support (maximum simplification of the existing legal legislation), forming a positive influence on the technological development of companies (by providing appropriate conditions for innovation activities) and ensuring sustainable contact

between enterprises and the state. Actions of state support are more global and must be formed through specific budget programs with clear goals and objectives and performance parameters. And what exactly they can be, should be formed of the peculiarities of the industry and its enterprises. Taking into account the existing methods of state support for the industry and the peculiarities of its functioning, it is possible to form a model of support for sugar industry enterprises. In its framework, the duties received in one way or another for importing sugar into the country will be used as a support fund. The principle of its functioning is shown in Figure 5.

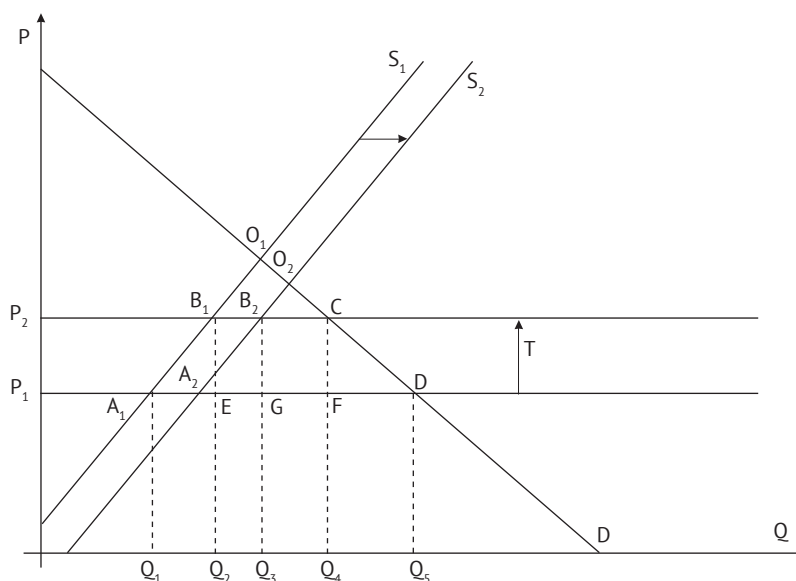


Figure 5. Model of state support for companies producing sugar industry in the Republic of Kazakhstan

Note: P_1 – world sugar price; $P_2 (P_1 + T)$ – the price of sugar in Kazakhstan including customs duties; T – level of duty rate; Q_1, Q_2, Q_3, Q_4, Q_5 – volumes of product sales in the country; S_1, S_2 – direct supply; D – direct demand
Source: compiled by the authors

Figure 5 shows schematic interaction between sugar beet production by Kazakh producers, consumers, and imported products. Equilibrium in consumption and production is established at point O_1 , however, due to more competitive imported goods, the real price is set at the level of P_1 . Under the influence of tax duties, the price rises to the level of $P_2 (P_1 + T)$, and the revenue to the budget will be equal to the area of rectangle B_1CFE . In case the state will use these funds to support producers, they will be able to increase their production capacity next year. This is shown in the graph as a movement of the line S_1 to S_2 . This in turn will cause the equilibrium price to move to the O_2 level, and the volume of production by exporters will increase from the Q_2 level to Q_3 , which will reduce tax revenues to the B_2CFG level. This trend will continue until S_2 crosses line D at point C when imports will stop (although in practice such a situation can never be achieved).

Although Figure 5 describes a mechanism for supporting sugar producers in Kazakhstan with state support, it is still not enough to make the industry sufficiently efficient and effective. For this purpose, the state authorities need to ensure technological development in Kazakhstan, in which enterprises will be able to increase the productivity of their cultivated areas, thereby producing more sugar. Connecting this statement with Figure 5, it can be said that technological development is one of the main forces, which moves the straight line S_1 to S_2 , that is, it allows companies to increase their production capacity. Thus, without the development of the technological base, it will not be possible to significantly increase the output of companies in the sugar industry, which is the separate role of this indicator. Thus, the mechanism to increase the competitiveness of the sugar industry in Kazakhstan is shown in Figure 6.

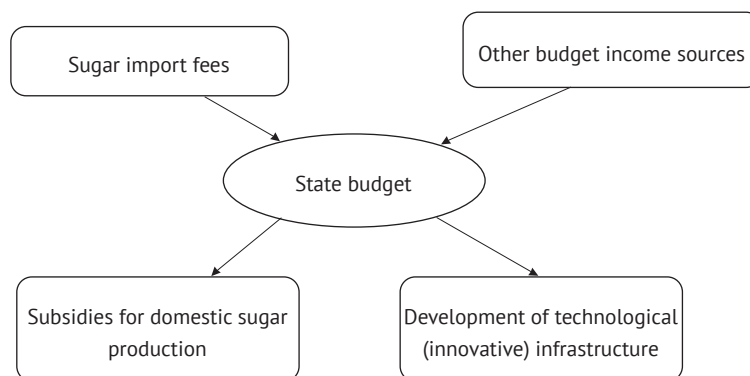


Figure 6. The main mechanisms of support for producers of the sugar industry in Kazakhstan

Source: compiled by the authors

As can be seen from Figure 6, support for sugar producers in Kazakhstan should consist of two main components. These are economic support (provision of subsidies for national sugar producers to increase their competitiveness against imported products) and technological development of the state (arrangement of innovation infrastructure, personnel training, and allocation of funds to promote innovative projects).

Thus, the sugar industry in Kazakhstan faces difficulties in fully satisfying domestic demand due to insufficient domestic capacity and climatic constraints that allow only beet cultivation. Although beet production in the country has increased to date, it remains insufficient and requires even more growth to meet demand. The tools that can be undertaken by both the government and enterprises to improve the development of the sector have been described in detail above. In case of their active and competent application, it is possible to really achieve significant success in terms of increasing the output of sugar in the country, and thus improve the competitive position in the international arena.

DISCUSSION

A. Nowak and M. Rozanska-Boczula (2022) analyze and consider the state of competitiveness of agricultural enterprises in the European Union (EU) within their research and form their model of comparing the level of their competitive advantages. It is worth noting that scientists within the framework of the study focus on the factor of human capital (human resources), pointing out that they have the greatest influence on the competitiveness of an enterprise. In general, it is possible to agree with this statement, since it is the company's employees who formulate its development strategy, implement technologies, manage economic processes, etc. Therefore, the efficiency of the company's activities will depend on how competently employees will perform their main tasks. Thus, in the realities of Kazakhstan, directors of sugar companies should pay special attention to the training and recruitment of highly qualified personnel.

T. Galovic and H. Bezi (2019) also considered factors of competitiveness of sugar industry enterprises in their

research, but they made their analysis in the context of European countries. Researchers note the existing relationship between the competitiveness of enterprises in the industry with economic, political, and so-called natural factors of the position of companies. It can be concluded that political stability plays an important role in the stable development of such enterprises, as well as the institutions of the country. This is indeed true, but the research does not focus on this, since the state is unable to influence these factors, and changes in the context of these indicators are only possible over rather large time intervals of dozens of years. There is also a widespread belief in Kazakhstan that beet is not a competitive raw material for sugar production compared to imported cane sugar, which was also mentioned several times in the study. Because of this, companies are forced to save resources, since the final financial result of their production and financial activities depends in full; these problems can also be solved by achieving a higher quality level of sugar beet seeds and root crops. In other words, sugar producers in Kazakhstan are forced to save money to be able to function.

Some methods to increase the competitive ability of the sugar industry are proposed in their work by A. Yeginbayeva *et al.* (2022). During the study, they conclude that a higher level of competitive ability of enterprises can be achieved by diversification of innovation, technical re-equipment of industrial enterprises, and the use of technological innovation as an incentive for the strategic development of the industrial enterprise. Thus, the scientists propose the following methods of increasing competitiveness: diversification of production, technical re-equipment, and reconstruction with a focus on expanding the range of products; modernization of beet harvesting equipment and technologies used; resource-saving and integrated processing of by-products (recycling of waste); environmentalization of products (optimization of the removal of the fertile layer of land from agricultural fields, prevention of environmental pollution from the plants' emissions). Although such activities related to an increase in the technological effectiveness of sugar plants in Kazakhstan

will indeed be able to reduce the cost of production and make them more competitive, in the international arena sugar cane will still be more efficient in comparison with sugar beet. However, even to increase the share of domestic sugar inside the country, such activities seem to be extremely effective. It is worth noting that stimulation of such activities can be carried out with the help of the state, especially given the strategic role of this industry for the economic well-being of the country.

Some scientists have considered methods and needs for the support of sugar producers in Kazakhstan as part of their research. Thus, A. Erseitova *et al.* (2017) described the main measure of state support as the formation of subsidies for various purposes (spring field and harvest work, the expertise of seeds, interest rates on leasing, preferential lending, reducing the cost of fertilizers and herbicides). Obviously, this activity will significantly reduce the price of these products in the domestic market, which will increase demand for sugar domestic production and allow the sector enterprises to develop. In the work above, the authors also note the economic support of enterprises as one of the main conditions for their well-being in the future. However, this is not enough to secure the long-term and sustainable development of the industry. Therefore, the role of state influence on technological and innovative development, which will increase the amount of sugar beet grown from one hectare of land, is also noted in the model built.

In turn, G. Zhaxygulova *et al.* (2020) describes how the introduction of innovations in sugar production processes affects its quality and output. Researchers show that the use of the latest technologies can improve the performance of enterprises, as well as reduce waste and increase environmental sustainability. In addition, they are the main reason for creating new jobs and organizing new types of production. Thus, scientists say that the greening of manufactured products plays an important role in the overall efficiency of the enterprise. This, in general, can be argued, at least in the context of the sugar industry, for which, according to the authors, it is now more relevant to develop technology to increase their productivity, rather than to achieve the goals of sustainable development.

The study of innovative development in the sugar industry was also worked on by G. Kashakova *et al.* (2022). Researchers note that the latest technology plays a special role in the welfare of sugar producers, as it allows for increasing the number of grown products, as well as the efficiency of sugar beet processing. Describing the most common options for innovative development in the field of sugar production technologies, the researchers note selective genetic research (discovery and implementation of new varieties of sugar beet, as well as hybrids); development and implementation of technical, technological, and production capacity of the enterprise; changes in the structure of organization and management of the company; work

on the influence of the company on the external environment and the society. Note that although all these components of the development of innovativeness and technology in the context of the sugar industry of Kazakhstan are relevant, the most important among them should be considered in the first-place selection and genetic research and development of their preferential capacity for the possibility of providing as much as possible domestic demand for sugar.

CONCLUSIONS

The paper considers some indicators that characterise the development of the industry over the past 16 years, namely the amount of sugar beet grown, the area planted with this product, and the productivity of the sown areas. It was shown that there are positive trends in the country, as the area used for sugar beet cultivation is decreasing, but the productivity and the total amount of sugar produced in the country are increasing.

In addition, an analysis of all the main opportunities for the development and support of the sugar industry in Kazakhstan was carried out. It was shown that the most effective assistance for this industry will be carried out if the state will take actions affecting both the short-term and long-term development of the industry. In the first case, economic support of enterprises is implied, which includes tax benefits, subsidies, and other methods of support. They will reduce the price of the products produced by the companies, which will make them more competitive compared to imported products, which means that they will receive more funds and develop their production capacities faster. In the second case, the authors imply support for technological development through the creation of innovative infrastructure, personnel training, support for newly created technological projects, and other similar actions. These conclusions were argued using the model built by the author, which characterizes the changes in the volume of production, imports, and prices in the sugar market in the conditions of state support.

Thus, the research formed some tips on how to increase the competitiveness of the sugar industry in the Republic of Kazakhstan. The novelty of the conducted research consists directly in the author's vision of mechanisms to improve the state of the industry enterprises and increase the efficiency of their subsequent development. Prospective for further research is to find other methods of improving the competitiveness of the sugar industry in Kazakhstan, as well as a comparative analysis of the development of this industry with other countries to determine its main strengths and weaknesses.

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CONFLICT OF INTEREST

None.

REFERENCES

- [1] Aguilar-Rivera, N. (2022). Bioindicators for the sustainability of sugar agro-industry. *Sugar Technology*, 24(3), 651-661. doi: 10.1007/s12355-021-01105-z.
- [2] Akaeva, Kh. (2022). *Kazakhstan provides itself with seven percent of sugar. How to stop depending on the Russian market? Radio Azzatyq*. Retrieved from <https://rus.azattyq.org/a/31958548.html>.
- [3] Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. (2023a). *Time series. Alma-Ata's region. Statistics of agriculture, forestry, hunting and fishing*. Retrieved from <https://stat.gov.kz/ru/region/almatyobl/dynamic-tables/1485/>.
- [4] Bureau of National Statistics Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. (2023b). *Time series. Jambyl Region. Statistics of agriculture, forestry, hunting and fishing*. Retrieved from <https://stat.gov.kz/ru/region/zhambyl/dynamic-tables/1485/>.
- [5] Erseitova, A., Muratova, D., Sarikulova, L., Sarikulova, L., Moldabekova, A., Moldasheva, A., & Atasheva, D. (2017). *Sugar beet production in the Republic of Kazakhstan*. *Espacios*, 38(24), 1-9.
- [6] Galovic, T., & Bezi, H. (2019). The competitiveness of the EU sugar industry. *Proceedings of the Rijeka Faculty of Economics*, 37(1), 173-189. doi: 10.18045/zbefri.2019.1.173.
- [7] Honma, Y., Adhikari, P.B., Kuwata, K., Kagenishi, T., Yokawa, K., Notaguchi, M., Kurotani, K., Toda, E., Bessho-Uehara, K., Liu, X., Zhu, S., Wu, X., & Kasahara, R.D. (2020). High-quality sugar production by *osgcs1* rice. *Communications Biology*, 3, article number 617. doi: 10.1038/s42003-020-01329-x.
- [8] Kashakova, G., Aimurzinov, M., Yeginbayeva, A., Mizambekova, Z., Khamitova, D., & Nakipova, G. (2022). Agri-food industry and environmental impact to ensure sustainable development. Factors and threats' awareness in the post-pandemic period. *Journal of Environmental Management and Tourism*, 13(7), 1937-1947. doi: 10.14505/jemt.v13.7(63).14.
- [9] Leal, M.R.L.V., & Teodoro, J.C. (2020). *A global view of bioproducts: The sugarcane perspective*. *Sugar Journal*, 82(12), 16-20.
- [10] Muhamamd, Z., Muhamamd, Z.A., Munawar, J.A., Majid, A., Waris, A.K., & Muhammad, H.A. (2020). *The role of government business support services and absorptive capacity on SMEs performance*. *International Journal of Advanced Science and Technology*, 29(3), 1492-1499.
- [11] Nguyen, T.T., Hoang, Q.T., Nguyen, T.T., Pham, T.A., Cao, A.D., Pham, H.D., Le, V.H., Vu, T.T., Pham, N.H., Nguyen, T.C., To, K.A., Nguyen, V.H., Phi, Q.T., Tran, V.H., Dang, T.T., Lai, Q.D., Lionnet, R., & Chu-Ky, S. (2022). Research and development prospects for sugarcane industry in Vietnam. *Sugar Technology*, 24(5), 1330-1341. doi: 10.1007/s12355-022-01113-7.
- [12] Nowak, A., & Rozanska-Boczula, M. (2022). The competitiveness of agriculture in EU member states according to the competitiveness pyramid model. *Agriculture*, 12(1), article number 28. doi: 10.3390/agriculture1201002.
- [13] QazTrade. (2020). *Review of the sugar market*. Retrieved from <https://qaztrade.org.kz/eng/sugar-market-overview/>.
- [14] Raza, Q.U.A., Bashir, M.A., Rehim, A., Sial, M.U., Raza, H.M.A., Atif, H.M., Brito, A.F., & Geng, Y. (2021). Sugarcane industrial byproducts as challenges to environmental safety and their remedies: A review. *Water*, 13(24), article number 3495. doi: 10.3390/w13243495.
- [15] Sugar Market of the Republic of Kazakhstan. (2022). Retrieved from <https://rpf.kz/?p=2089>.
- [16] Voora, V., Bermudez, S., & Larrea, C. (2020). *Global market report: Sugar*. Winnipeg: International Institute for Sustainable Development.
- [17] White, J.R. (2018). Sugar. *Clinical Diabetes*, 36(1), 74-76. doi: 10.2337/cd17-0084.
- [18] Yeginbayeva, A., Karipova, A., & Moldakenova, E. (2022). Comparative analysis of sugar industry development in Kazakhstan and Germany. *Bulletin of Kazakh University of Economics, Finance and International Trade*, 1(46), 238-245. doi: 10.52260/2304-7216.2022.1(46).31.
- [19] Zhao, D., Zhu, K., Momotaz, A., & Gao, X. (2020). Sugarcane plant growth and physiological responses to soil salinity during tillering and stalk elongation. *Agriculture*, 10(12), article number 608. doi: 10.3390/agriculture10120608.
- [20] Zhaxygulova, G., Myrzabekova, M., & Sadykova, G. (2020). Integrated processing of secondary raw materials as the main direction of ecologization of beet sugar production in the Republic of Kazakhstan. *E3S Web of Conferences*, 159, article number 03002. doi: 10.1051/e3sconf/202015903002.

Формування механізму підвищення конкурентоспроможності цукрової галузі в Республіці Казахстан

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Анотація. Сільське господарство відіграє важливу роль у розвитку будь-якої країни, що зумовлює необхідність вивчення та врахування особливостей його розвитку. Однією зі складових аграрного сектору є цукрова галузь, що робить її аналіз актуальним. Таким чином, метою дослідження є формування методів підвищення рівня конкурентоспроможності продукції цукрової галузі. Дослідження проводилося в рамках Республіки Казахстан з урахуванням особливостей, що характеризують розвиток галузі в країні. Основним методом дослідження можна вважати моделювання. Крім того, варто відзначити аналіз, історичний метод, індукцію та інші. Таким чином, в ході дослідження були розглянуті основні тенденції обсягів вирощування буряків в Казахстані. Показано, що кількість тонн продукції на ділянці 1 га в країні з часом збільшується, що є гарним показником розвитку галузі. Також було показано та обґрунтовано механізм підвищення конкурентоспроможності цукрової продукції. Автори дійшли висновку, що досягти кращих результатів для підприємств галузі можна за умови більш активного впливу держави на діяльність компаній в аспекті економічної допомоги, а також за умови розвитку технологічної інфраструктури, підготовки кадрів, збільшення виробничих можливостей, використання нових сортів буряків для підвищення рівня родючості тощо. Таким чином, дане дослідження створює нові знання в контексті вивчення особливостей державної стимулюючої політики, а також дає можливість по-іншому поглянути на ринок цукрової промисловості в Казахстані та особливості його розвитку

Ключові слова: підприємництво; управління; макроекономіка; маркетингові дослідження; сільське господарство
