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ANALYSIS OF THE STATE OF THE FOOD INDUSTRY

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Abstract

The article presents an analysis of the food industry market according to the Agency of the Republic of Kazakhstan on Statistics, the main share of meat and meat product producers as of 01.02.2023. Meat products are now regarded as high-risk products that carry both biological and chemical dangers. The International Epizootic Bureau (OIE) and Codex Alimentarius papers include guidelines for thuse of a risk-based approach to animal products. The OIE documents, on the other hand, primarily concern the veterinary welfare of farm animals, but in the Codex Alimentarius they relate to the completed product and are seen as relevant to human health. The technology aspect is not particularly addressed in these texts, but it is crucial in managing both individual hazards and their aggregate, allowing to produce products with guaranteed shelf-life safety as well as safety for human health and epizootic well-being. The success of the nation's socioeconomic development program will be greatly influenced by the quality, variety, and availability of food, which should be prioritized as a national effort.

Keywords: meat, meat product, canned meat, meat and food by-product, sausage product, meat and food by-product.

ТАҒАМ ӨНІМДЕР ӨНДІРІСІНІҢ ЖАҒДАЙЫН ТАЛДАУ

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Андапта

Мақалада Қазақстан Республикасы Статистика агенттігінің деректері бойынша тамақ өнеркәсібі нарығына талдау ұсынылған 01.02.2023 ж. жағдай бойынша ет және ет өнімдерін өндірушілердің негізгі үлесі әлемдік тәжірибеде ет өнімдері биологиялық, сондай-ақ химиялық тәуекелдермен сипатталатын жоғары қауіпті өнім ретінде қарастырылады. Кодекс Алиментариус пен Халықаралық Эпизоотиялық Бюроның (ХЭБ) құжаттарында жануарлардан алынатын өнімдерге тәуекелге бағдарланған тәсілді қолдануға нұсқаулар қамтылады. Алайда, Кодекс Алиментариус олар дайын өнімге қатысты және адам денсаулығына қатысты, ал ХЭБ құжаттарында көбінесе ауылшаруашылық жануарларының ветеринарлық әл-ауқатына қатысты. Технологиялық құрамдас бөлік көрсетілген құжаттарда ерекшеленбейді, бірақ ол жеке тәуекелдерді де, олардың жиынтығын да басқарудың маңызды тетігі болып табылады, бұл кепілдік берілген қауіпсіздік өнімін жарамдылық мерзімі ішінде, сонымен қатар адам денсаулығына да, эпизоотиялық әл-ауқатқа да қауіпсіздікті қамтамасыз етуге мүмкіндік береді. Азық-түлік өнімдерінің қауіпсіздігі мен олардың сапасы, ассортименттік және бағалық қолжетімділігі көбінесе елдің әлеуметтік-экономикалық даму бағдарламасының табысты іске асырылуын айқындайтын басым ұлттық жоба болуға тиіс.

Түйін сөздер: ет, ет өнімдері, еттен жасалған консервілер, ет және тағамдық қосымша өнімдер, шұжық өнімдері, ет және тағамдық қосымша өнімдер.

АНАЛИЗ СОСТОЯНИЯ ПИЩЕВОЙ ПРОМЫШЛЕННОСТИ

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Аннотация

В статье представлен анализ рынка пищевой промышленности по данным Агентства Республики Казахстан по статистике, основная доля приходится на производителей мяса и мясопродуктов по состоянию на 01.02.2023. Мясные продукты в настоящее время считаются продуктами высокого риска, которые несут в себе как биологическую, так и химическую опасность. Документы Международного эпизоотического бюро (МЭБ) и Кодекса Алиментариус содержат рекомендации по использованию подхода, основанного на оценке риска, к продуктам животного происхождения. Документы МЭБ, с другой стороны, в первую очередь касаются ветеринарного благополучия сельскохозяйственных животных, но в Кодексе Алиментариус они относятся к готовому продукту и рассматриваются как имеющие отношение к здоровью человека. Технологический аспект особо не рассматривается в этих текстах, но он имеет решающее значение для управления как отдельными опасностями, так и их совокупностью, позволяя производить продукты с гарантированным сроком годности, а также безопасность для здоровья людей и эпизоотического благополучия. Успех национальной программы социально-экономического развития будет в значительной степени зависеть от качества, разнообразия и доступности продуктов питания, которые должны быть приоритетными в качестве национальных усилий.

Ключевые слова: мяса, мясная продукция, консервы из мяса, мясо и пищевые субпродукты, колбасные изделия, мясо и пищевые субпродукты.

This introduction

The globalization of trade, not only in finished foodstuff, but also in raw materials, introduces new risks related to food safety. The improvement of analytical equipment capabilities and methodological approaches to product research allow for the simultaneous identification of new, undiscovered dangers associated with food products. The worldwide meat market should harmonize the safety requirements of these product for consumers. However, the prevailing differences in the sphere of national sanitary and hygienic regulation do not allow creating an invariant platform for international trade. during this case, the foremost logical step to achieve the necessary coordination may be a generally recognized model of the Food Safety Management System, implemented as a world standard. the prevailing regulatory framework in Kazakhstan regulating food safety issues differs significantly from the legislation of the European Union, the us, and other WTO member countries [1, 2 pp.11-13].

Currently, most agricultural and procedure enterprises are in a difficult economic situation. Commodity policy management is one among the main objects of the management system at the procedure enterprises of the industrial-agricultural complex since it's the attitude of consumers to product that determines the possibilities of the existence and development of the enterprise. Primary attention should be paid to the formation of a high-quality product range that might best meet the needs of certain categories of customers. Of particular importance at this stage of the development of market relations is the social responsibility of agribusiness [3, 4 pp.45-48].

Thus, the event of the agro-industrial complex in modern conditions requires special attention to the safety of product, the assortment and quality, considering the fashionable requirements of the functioning and development of agri-food markets, methods of their protection. All this determines the relevance of the subject, goals, objectives, structure, and main directions of the dissertation research from a scientific and practical point of view.

In this connection, Kazakhstan, which has chosen the course of integration into the world economic community, is on the path of reforming its legislation in this area.

The reform of the technical regulation system carried out in Kazakhstan provides for the development of technical regulations and the adoption of harmonized standards.

In accordance with the Law of the Republic of Kazakhstan "On Technical Regulation", technical regulations will include safety requirements for food product, standards will include quality requirements, be applied on a voluntary basis and be the evidence base of technical regulations) [5, 6 pp.1-3].

Research methods

In addition to the standards governing product safety requirements, ST RK ISO 22000:2007 "Food safety management systems" was adopted as a state standard to boost competitiveness and assure food safety in the Republic of Kazakhstan. requirements for all food-chain enterprises. ISO 22000:2006 for ST RK System for managing food safety. Organizations in the food chain must adhere to the ISO 22000:2005 Food Safety Management System requirements. Norms for any businesses involved in the food chain; ISO 22004:2005 application guidelines for the ISO 22000:2005 standard. The software suite Microsoft Excel 2010 Statistical 12.0 was used to process the experimental data. The existing important differences between hazards of different classes require different approaches to risk assessment. For some hazardous chemicals, especially for people who eat them, they must be under strict control, such as food additives, pesticide residues and veterinary drugs, a "conditionally zero approach" is traditionally used, i.e. complete or controllable important differences between hazards of different classes dictate different approaches to risk analysis. The existing important differences between hazards of different classes require different approaches to risk assessment. For some hazardous chemicals, especially for people who eat them, must be under strict control, such as food additives, pesticide residues and veterinary drugs, a "conditionally zero approach" is traditionally used, i.e., complete, or controllable Important differences between hazards of different classes dictate important differences between hazards of different classes require different approaches to risk assessment. For some hazardous chemicals, especially for people who eat them, they must be under strict control, such as food additives, pesticide residues and veterinary drugs, a "conditionally zero approach" is traditionally used, i.e., complete, or controllable important differences between hazards of different classes require different approaches to risk assessment. for some hazardous chemicals, especially for people who consume them, the existing important differences between hazards of different classes require different approaches to risk assessment. for some hazardous chemicals, especially for people who eat them under strict control, such as food additives, pesticide residues and veterinary drugs, a "conditionally zero approach" is traditionally used, that is, a complete or controlled exclusion from the assortment. Microbiological hazards, as a rule, are living organisms that can multiply in food and are found everywhere in the environment. They require a special approach to risk assessment and management strategies that are aimed at maintaining risk within acceptable limits, rather than eliminating it completely [7, 8, pp.51-53, pp.5-8].

In both developing and wealthy nations, ensuring food safety is crucial for protecting public health as well as fostering the growth of the medical and pharmaceutical industries.

However, the problem of illnesses linked to food products has not yet been fully resolved, and more and more new nutritional dangers are being discovered. Food products pose a physical, chemical, and biological risk. Microorganisms and parasites are examples of biological dangers. Chemical hazards include any potentially harmful chemicals that will form during production or be present in the completed product. Physical hazards include anything that could harm a person's digestive system. [9,10,11 pp.15-18].

So, to date, the requirements for meat product, in addition to laws and regulatory legal acts of the Republic of Kazakhstan, San Pins and SNIPS, are set out in interstate GOST standards, state standards of the Republic of Kazakhstan, international ISO standards (Table 1).

Table 1. Categories of normative documents on standardization regulating the quality of meat product

Product Name	ST RK	GOST	ISO
Meat and meat product	31	18	35

The issue of increasing the competitiveness of product has become the most urgent issue for agricultural producers of the Republic of Kazakhstan's accession to the World Trade Organization.

Although the market economy has long introduced Kazakhstani enterprises into a certain risk zone and daily raises the question of competitiveness for them, many Kazakhstani enterprises, and especially food industry enterprises, have not realized the importance of switching to international standards, as required by the world market [12, 13, pp.11-13].

Already today, the high competition of foreign companies producing food product in the domestic market of Kazakhstan and the low competitiveness of domestic product in the foreign market give rise to serious economic and social issues. With the accession of Kazakhstan to the WTO and the removal of customs barriers, foreign companies will rush into the Kazakh market and will have great advantages and priority if our domestic producers do not seriously engage in the restructuring of quality management, use advanced world and domestic experience to improve the organization of production and implement international food safety management systems [14, pp.21-26].

Having analyzed the meat product market according to the Agency of the Republic of Kazakhstan on Statistics, the main share of meat and meat product producers as of 01.02.2023 is small enterprises, in the meat industry – 92.8% (Table 2).

Table 2. The number of registered legal entities with the main activity related to the production of meat and meat product in the territory of the Republic of Kazakhstan on 01.02.2022.

Activity name	Final value	Large enterprises	Medium-sized enterprises	Small businesses
in the process of liquidation	12		1	11
there is no information about the company	198		2	196
the company operates	138	5	14	119
the company is not operating yet	31		1	30
the company is not operating (temporarily)	83		1	82
Total	462	5	19	438

In the country, small, isolated, unattractive to a rival, and inadequately equipped for market relations, population households produce most of the rise in production of the commodity [15, pp. 14–16]. Statistics also indicate a rise in the manufacturing of the beef product by 9% in recent years (Table 3).

Table 3. Meat production

Type of product	2020	2021	2022	January-December 2022*
Meat and edible offal, tons	67522	68815	85625	90072
Sausage product, tons	22658	23057	25065	27472
Canned meat, tons	1446	1869	2659	3679
Canned meat, tons	532	222	309	354

* according to operational data

As for export-import operations in the meat product market in 2022, the dairy product market is stable), while in the meat product market in 2023, compared to 2022, imports of product amounted to 86.4%, exports - 87.3% (Table 4).

Table 4. Import-export of the Republic of Kazakhstan of meat and meat product by major trading partner countries for January-December 2022

Product name, main destination countries	Unit of measurement	2023 y.				2022 y.		2023 г в % 2021 y.	
		January - December		including December		January - December		January - December	
		Quantity	cost, thousand US dollars	Quantity	cost, thousand US dollars	Quantity	cost, thousand US dollars	Quantity	by cost
Import-total			23676		23878		173522		136,4
Meat and offal, fresh, frozen, and chilled	тg	169430	100 673	18 189	10 591	118333	70 903	143,2	142,0
CIS countries		104	366,9	1,7	3,7	114,4	374,4	91,4	98,0
Belarus		-	-	-	-	0,2	0,3	0,0	0,0
Kyrgyzstan		-	-	-	-	2,9	4,4	0,0	0,0
Moldova		86,3	334,6	-	-	100,2	359,8	86,1	93,0
Russia		18,2	32,3	1,7	3,7	9,6	6,6	189,3	490,9
Turkmenistan		-	-	-	-	0,4	1,1	0,0	0,0
Uzbekistan		-	-	-	-	1,0	2,1	0,0	0,0
The rest of the world		169325	100306,4	18187	10587,9	118219,3	70528,8	143,2	142,2
Australia		4 65	3 629	337	276,5	3 909	3 155,1	119,1	115,0
Argentina		-	-	-	-	9,8	5,9	0,0	0,0
Belgium		-	-	-	-	92,1	341,1	0,0	0,0
Brazil		11.6	7 263	764	483,6	2 151	1 327,4	542,3	547,2
Great Britain		23,7	13,4	14,4	7,2	-	-	-	-
Hungary		7,9	19,5	0,5	3,1	22,0	30,2	35,9	64,8
Vietnam		-	-	-	-	0,0	0,3	0,0	0,0
Germany		3 18	3 570	854	590,7	326,3	834,6	986,4	427,8
Denmark		0,4	1,0	-	-	41,0	33,5	1,1	3,0
Irish		49,7	68,7	-	-	-	-	-	-
Spain		9,3	4,9	-	-	-	-	-	-
Italy		1 55	537,4	-	-	0,1	0,4	8059	1262
Canada		25,0	16,6	-	-	-	-	-	-
China		337	410,4	274,5	318,5	-	-	-	-

Latvia		407	187,5	57,0	40,6	78,2	36,1	520,9	519,5
Mongolia		482	479,1	77,6	77,6	439,9	393,2	109,6	121,9
Netherlands		320	940,8	105,7	132,4	432,3	1 600,6	74,1	58,8
Niue		-	-	-	-	0,1	0,9	0,0	0,0
New Zealand		59,4	73,5	1,3	11,3	3,2	6,7	19	11
UAE		0,4	3,9	-	-	0,4	4,3	100,5	91,8
Poland		5 83	8 159	418,1	469,8	2 123	2 857,5	274,8	285,5
Slovenia		0,1	1,4	-	-	-	-	-	-
USA		140936	74 679	15 07	8 062	107 9	59 53	130,5	125,4
Turkey		-	-	-	-	4,0	59,5	0,0	0,0
Uruguay		22,7	117,4	-	-	0,1	0,9	241	126
France		213	128,6	205	113,3	609,3	308,5	35,1	41,7
Czech		0,1	0,7	0,0	0,4	-	-	-	-
Japan		-	-	-	-	0,0	0,0	0,0	0,0
export of meat and meat product									
Product name, main destination countries	Unit of measurement	2023 y.				2022 y.		2023 г. в % 2022 y.	
		January - December		including December		January - December		January - December	
		Quantity	cost, thousand US dollars	Quantity	cost, thousand US dollars	Quantity	cost, thousand US dollars	Quantity	by cost
Meat and offal, fresh, frozen, and chilled	тg	147	286,9	30	51,8	372,9	555,0	39,6	51,7
CIS countries		147	286,9	30	51,8	372,9	555,0	39,6	51,7
Kyrgyzstan		51,5	83,1	30	51,8	-	-	-	-
Russia		96,0	203,8	-	-	224,1	414,4	42,8	49,2
Tajikistan		-	-	-	-	26,7	38,1	0,0	0,0
Export-total			38 млн		34 млн		27 млн		137,3

In the meat market, with an increase in exports of product, at the same time, imports exceed exports of product, which also indicates a low level of competitiveness of product.

Conclusion

As a result, the statistics presented in this section indicate that the meat industry's degree of competitiveness is not very high. Although domestic production is increasing, it still has a small market saturation share and is of lower quality than imported items. This results from the improperly balanced growth of meat product production and procedure, flaws in the marketing system, and deficiencies in the regulatory mechanism.

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