ANALYSIS OF THE STATE OF THE FOOD INDUSTRY

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ABSTRACT

The object of research: The paper examines the management of the strategic development of enterprises, it is worth noting the planning of the implementation of certain strategies, forming them in parallel and choosing the most important and cost-effective for enterprises.

Investigated problem: A methodology for selecting effective strategies of dairy industry enterprises has been developed, which includes a number of stages: expert assessment of consumer products properties of the studied enterprise and its main competitors; assessment of the volume of gross profit and cost of production at the studied enterprise; expert assessment of the level of innovation of the products of the studied enterprise and competitor enterprises; assessment of the prestige of the products of the studied enterprise and competitor enterprises; selection of competitive strategies based on a comparative analysis of the proposed strategies.

The main scientific results: In the course of the study, the author calculated 4 variants of the medium-term economic strategy for KokshetauGormolzavod LLP, determined the level of consumer properties of dairy products of the enterprise, cost estimates for the production of dairy products in the base year, the level of product innovation.

The area of practical use of the research results: The competitiveness of a country is crucially interconnected with the competitiveness of national companies, both in domestic and foreign markets. Accordingly, the categories of competitiveness of a product, company, industry, region and country are interconnected. The fundamental basis of industry competitiveness is the competitiveness of products, which is influenced by factors such as consumer price and cost. The author introduces the third factor of product competitiveness – innovativeness, understood as the introduction of novelty into products, due to which additional competitive advantages can be created.

Innovative technological product: Innovative products are products that meet international quality standards, forming additional competitive advantages over similar products. The authors adapted the method of assessing the competitiveness of consumer goods to dairy products by introducing the factor "Level of innovativeness" instead of the factor "Level of sales organization" and introduced as indicators of the factor "Level of innovativeness": the range of dairy products, packaging (packaging), safety, social suitability, manufacturability, image, service, informativeness. Just such indicators affect competitiveness.

Scope of the innovative technological product: The fundamental basis of industry competitiveness is the competitiveness of products, which is influenced by factors such as consumer price and cost. The author introduces the third factor of product competitiveness – innovativeness, understood as the introduction of novelty into products, due to which additional competitive advantages can be created .

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 01.02.2021. 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 the use 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

1. Introduction

1. 1. The object of research

The limited liability partnership "KokshetauGormolzavod" is located in the Akmola region, the city of Kokshetau, the district of the new meat processing plant.

1. 2. Problem description

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. [1]. 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 [2].

1. 3. Suggested solution to the problem

The International Organization for Standards (ISO) was founded in 1947. It develops standards that contribute to the development of international trade in all areas of business, with the exception of the sphere of electricity and telecommunications. ISO standards are not intended for mandatory use in countries for the development of laws and regulations [3].

In 2021, ISO submitted a project to develop a food safety management system. This standard was not designed to compete with the Code's definition of "Risk Analysis and Critical Control Systems". The project was adopted in response to the need to harmonize a large number of food standards. The countries that have published food safety standards are: Australia, Denmark, Germany, Ireland, the Netherlands and the USA [4, 5].

Currently, most agricultural and procedure enterprises are during 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 [6, 7].

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).

The purpose of the study was that the introduction in the agro-industrial complex of the food safety management system, successfully practiced in the WTO member countries, one of the elements of which is the HACCP system. The HACCP system is a scientific approach to safety identification [8, 9].

2. Materials and methods of research

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. This work consists of four interrelated components of risk analysis:

– definition of the source of opacity;
– evaluation of risks;
– risk management;
– interactive exchange of information in food production.

3. Results and their discussion

The existing important differences between hazards of different classes require different approaches to risk analysis. for a few hazardous chemicals, especially people who my, be under strict control in food, like food additives, pesticide residues and veterinary drugs, a "conditional zero approach" is traditionally used, i.e., complete, or controlled exclusion from the merchandise. Microbiological danger, usually these live organisms that can multiply in food and occur everywhere in the environment. They require a special approach to risk appraisal and management strategies that seek to keep the risk within acceptable limits, instead of eliminating it completely [10, 11].

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. [12, 13].

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	STRK	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 [14].

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 [15].

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 01.02.2021 is small enterprises, in the meat industry – 92.8 % (**Table 2**).

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 [16]. Statistics also indicate a rise in the manufacturing of the beef product by 9 % in recent years (**Table 3**).

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 01.02.2021

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

Table 3

Meat production

Type of product	2018	2019	2020	January–December 2021*
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

*Note: * – according to operational data*

As for export-import operations in the meat product market in 2021, the dairy product market is stable), while in the meat product market in 2021, compared to 2020, imports of product amounted to 86.4 %, exports – 87.3 % (**Table 4**).

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.

The cost cam a of providing a quality management system is indicated in **Table 5**

Table 4

Import-export of the Republic of Kazakhstan of meat and meat product by major trading partner countries for January-December 2021

Product name, main destination countries	Unit of measurement	2021 y.				2020 y.		2021 y. in % 2020 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
1	2	3	4	5	6	7	8	9	10
Import-total	–	–	23676	–	23878	–	173522	–	136.4
Meat and offal, fresh, frozen and chilled	tg	169 430	100 673	18 189	10 591	118 333	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	–	169 325	100 306.4	18 187	10 587.9	118 219.3	70 528.8	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

Continuation of Table 4

1	2	3	4	5	6	7	8	9	10
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	–	140 936	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	2021 y.				2020 y.		2021 y. in % 2020 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	tg	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	–		38million		34million		27 million		137.3

Table 5

Costs for ensuring the quality management system

The costs of the corresponding products include	The amount, tg
Costs of legal quality assurance	20,000
Costs of administrative quality management	100,000
Costs of technological preparation and technical quality management	50,000
Education and training costs	48,621
Maintenance costs of the product quality control service	200,000
Costs of product testing and metrological quality assurance	100,000
Costs for the purchase of measuring instruments	150,324
Costs for the purchase and maintenance of equipment, maintenance of equipment	135,000
Transportation costs	264,315
costs of surveys by external organizations	41,000
The costs of ensuring safety and labor protection	31,256
Reserves estimation costs, storage	13,000
Costs of planning, accounting, evaluation of quality assurance costs	250,632
Total	1,249,148

In the future, Kazakhstan's accession to the WTO presupposes the adoption of management decisions by domestic organizations that can make them market-competitive in the global market. Such a solution can be the introduction of a food safety management system in organizations involved in the food chain, based on internationally recognized concepts and requirements and allowing to increase the effectiveness and efficiency of product safety management – a necessary property for the end consumer. The basis for building such a management system can be the international standard ISO 22000:2005 "Food safety management System".

4. Conclusion

Currently, in order to enter the European and American markets, it is becoming a mandatory requirement for food industry enterprises to have a HACCP system. Kazakhstan's preparation for WTO accession and integration into the world economic system also required our enterprises to introduce modern approaches to ensuring food safety in their production and sale. An increasing number of manufacturers in the republic are now starting to develop a food safety management system based on ISO 22000:2005, which really ensures the safety of products and increases their competitiveness.

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.

Conflict of interest

The authors declare that there is no conflict of interest in relation to this paper, as well as the published research results, including the financial aspects of conducting the research, obtaining and using its results, as well as any non-financial personal relationships.

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Data availability

Manuscript has data included as electronic supplementary material.

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