#### Int. J. Food System Dynamics 13 (3), 2022, 308-320

DOI: https://dx.doi.org/10.18461/ijfsd.v13i3.C5

# Improving the Evaluation of the Competitive Ability of the National Market of Meat and Meat Products of Kazakhstan

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Received March 2021, accepted March 2022, available online June 2022

# ABSTRACT

This article considers the economic nature of competition and competitive ability in modern conditions of economic development, reveals features of the competitive environment of the meat market, identifies factors for increasing the competitive ability of meat industry. The methodological foundations of increasing the competitiveness of the national market of meat products in Kazakhstan are examined. The provisions and principles of a systematic approach to ensuring the development of the meat industry in the agro-industrial complex are examined. The performance rating of livestock and poultry meat production in the countries of Central Asia is determined.

**Keywords**: livestock farming; resource-saving technologies; production efficiency; meat and food subcomplex; competition management

#### 1 Introduction

Further reform and development of the national market of meat and meat products of Kazakhstan takes place in the context of globalization of the economy, increasing the instability of functioning and internal contradictions of national economic systems. In these conditions, the importance of the issue of ensuring the economic and food security of the country is growing, in the context of which the issues of increasing the competitiveness of domestic products are of particular importance. All of the above is true for the agricultural sector, whose sectors are currently not competitive enough in the global market. In the initial period of reforming the economic mechanism of the agro-industrial complex in accordance with market laws of development, the Kazakhstani meat market underwent significant negative quantitative and qualitative changes: consumption of meat products per capita decreased to 52 kg, and domestic production – to 900 thousand tons against 1,4 million tons in slaughter-weight in 1990; livestock decreased 2.2-2.5 times, poultry – 1.5 times.

The stabilization of the political situation and the development of economic processes in recent years have led to overcoming negative trends and improving the situation in the meat industry, as evidenced by an increase in meat production by 17%, per capita consumption – by 12%. At the same time, the slow recovery of livestock over the past 25 years and its low productivity do not allow ensuring the production of meat at the pre-reform level. The level of state support for the branches of the meat subcomplex is much lower than in countries with developed beef cattle breeding, and the mechanism for its regulation requires further improvement. The presence of these problems hinders the achievement of high competitiveness of meat products in the domestic market.

In this regard, there is an urgent need to solve the issues of ensuring growth and increasing the efficiency of production of meat while increasing its competitive ability. The need for a thorough study of this problem is also due to the lack of elaboration of practical and methodological provisions to increase the competitiveness of agricultural sectors in modern economic conditions, including the meat and food subcomplex. Ensuring the competitiveness of domestic production of meat products is an important socio-economic problem, the solution of which requires a theoretical, practical and methodological justification, which determines the relevance of this paper (Misiuk and Zakhodym, 2021; Hevchuk and Christoffers, 2021).

The importance of the issue of increasing the competitive ability of the national market of meat in Kazakhstan, its particular importance during the development of a market economy, determine the growing attention to it from both business entities and the scientific community. They are actively involved in research on the development of competitive ability of meat products (Alshanov 2010; Kazkenova et al. 2015), on improving the evaluation of the competitiveness of the meat industry in the agricultural sector (Kopteva 2015; Sultangalyeva 2013).

The works of prominent agrarian economists are devoted to the study of the features of the development of the meat processing industry in Western countries: Heinz and Hautzinger (2007), van Horne (2018), Bal-Prylypko et al. (2018), Gundersen and Ziliak (2018), Bondarenko (2013), Pietrobelli and Saliola (2008), Akabanda and Hlortsi (2017). Deep scientific and practical work was carried out in the field of research on the economic and economic activities of farmers and households: Cartwright and Swain (2009), Mullally and Lusk (2018), Davis (2006), Bogdanov (2007).

It is important to note that economists make a special contribution to the development of agriculture in post-socialist countries with economies in transition (Lusk and McCluskey 2018; Bellemare et al. 2017; Efstratoglou et al. 2006), the integration of agricultural production, including with Central Asian countries (Saatkamp et al. 2019; Ersado 2011), Overcoming Poverty in Agriculture (Davis and Rylance 2005; Goetz et al. 2018; Athey and Imbens 2017). Significant studies have been conducted to analyze the forecasting competitiveness of meat products manufacturers of products in Kazakhstan (National Strategy Kazakhstan, 2018).

In Kazakhstan, a large number of scientific works in the field of economy are devoted to the issues of evaluating the compliance of the competitive environment in the meat and meat products market with the tasks of creating competitive relations and the competitive advantages of its participants. Many issues remain debatable, not fully investigated and require further development. In the economic literature, issues of managing the competitive environment and the specifics of the meat products market are mainly reflected in the works of foreign scientists. Timeliness and relevance of the questions raised, insufficient knowledge and the need to solve them predetermined the choice of the direction of scientific research, made it possible to formulate purpose and objectives of the paper.

The purpose of the study is to develop provisions and practical recommendations for substantiating priority areas for increasing the competitiveness of domestic production of meat and meat products, which will solve the problem of import substitution and strengthen national food security. Achieving this goal requires the solution of the following main tasks:

- to identify the main factors that shape the trends in changes in the production of meat products, and justify their practical use for predicting and planning industry development indicators;
- to substantiate the economic mechanism to increase economic efficiency and reduce the risks of meat production, as well as the formation and functioning of meat and food markets;
- to assess the current state of the competitive environment in the country's meat market, as well as the emerging competitive relations in Kazakhstan.

#### 2 Materials and methods

In the course of the study, general scientific methods were used: inductive and deductive, empirical and economicstatistical methods to identify current trends and directions in the development of meat products market practices in the world, to identify possible ways of continuity of foreign experience in domestic cattle breeding, and to suggest the use of effective technology for the meat produce system business as strategic guidelines for the development of the meat market of Kazakhstan. Depending on the tasks to be solved, the following research methods were used:

- abstract-logical in the formulation of the goals and objectives of the paper, the substantiation of the working hypothesis and the development of a strategy for the competitive development of the meat subcomplex of the agro-industrial complex;
- economic and statistical in the study of the current state, trends and development factors of the production and market of meat products in Kazakhstan;
- calculational and analytical in a comparative evaluation of the competitiveness of the production of meat products in Kazakhstan, forecasting the production of meat based on the potentials of inertial and innovative models for the development of feed production;
- monographic and design-constructive when developing proposals for improving state regulation of the meat subcomplex of the agro-industrial complex, taking into account the features of the modern stage of its development; the formation of vertically integrated marketing systems as the organizational basis for the development and implementation of quality management systems in the technological chain of creating a finished product;
- economic and mathematical modeling in the development of optimal parameters of logistics systems for the distribution of meat products.

In order to improve the methodological foundations of the process of managing the competitive environment in the production of meat in order to increase its efficiency, author substantiated a number of provisions containing methodological and practical novelty: a methodology for evaluating the competitive ability of meat products producers was proposed; methodological approaches to conducting a comparative analysis of the competitiveness of producers of meat products are justified; methodological approaches to forecasting the production of meat are clarified when developing programs for the competitive development of the industry.

# 3 Results

Domestic and foreign practice shows that competition covers all areas of commodity production, distribution, market exchange and consumption and manifests itself differently in each sector of the economy, which is due to the specifics of their activities. The agrarian sector is characterized by the dependence of economic results on natural factors, the extremely important role and importance of food products, the mismatch of the working period of production and sale of products, the variety of types of products manufactured, their intended purpose and role for the consumer, the inelasticity of consumption by individual types, and the dependence on changes in the world market, the special importance of state regulation. The noted features must be taken into account when clarifying the concepts of production competitiveness in the sectors of the agro-industrial complex.

In the paper, we proposed options for determining the competitive ability of the production of meat products for the intra-regional market and for inter-regional exchange. In our opinion, the differences in the essence of the definitions are due to the position of the subject in the markets of different levels and the results of his activities aimed at increasing competitive ability: in the domestic market, the meat producer, by increasing its marketability, creates a competitive environment in which it operates today, and which is the basis future competitiveness. Working in an external market, a regional producer uses the competitive environment created by other participants.

Based on the approach above, we believe that the competitiveness of the meat production on the domestic market is considered as the ability of regional enterprises of the meat subcomplex to ensure, on the basis of the effective use of

the region's raw materials potential and the innovative approach, the production of meat products in volumes sufficient to meet the consumer demand, the economic, financial, marketing and technological indicators of which correspond to the needs and capabilities of consumers and exceeds the data of competing foreign regional manufacturers, which helps to inhibit the growth of their share in the regional market. This definition reflects the factors of competitiveness – the maximum use of raw material potential, innovative approach, production stability, parity of economic relations. Using and developing these factors, the producer, increasing his marketability, creates a competitiveness, forms a habitat, creates for the development of production, which serves as the basis for its future competitiveness, forms a habitat, creates new jobs.

Increasing the marketability of a regional producer in foreign markets is aimed at increasing market share, selling products outside the region, which is possible only if there are competitive advantages in the segments of price competition, advertising, sales and quality. When entering the inter-regional markets, superiority is accentuated over the criteria of local producers and other market participants, since in this situation the interest of the regional producer of meat and meat products is focused on the marketing potential of the foreign market.

Making optimal decisions in the field of managing a competitive environment and competitiveness involves identifying marketability factors and determining their optimal combination. The management process includes several levels depending on the status of the subject of management: the state's priorities are the formation and management of a competitive environment at the macro and mesoscale, other participants, solving the problem of increasing competitiveness, participate in this process at the micro level.

Management of the competitiveness of the production of meat requires the systematization of factors that ensure its increase, for an accurate evaluation of the place and role of each of them, to identify the level of implementation to clarify the competencies of the subjects of the management system. In the course of the study, we clarified classification features for systematizing the factors of competitive ability in the production of meat, including the level of the economy, the nature of origin and impact, and areas of activity. Based on the selected features, a multidimensional classification of competitiveness factors has been performed, characterized by the breadth and completeness of their coverage, systematic nature, the possibility of applying a situational approach, which allows a comprehensive evaluation of factors, ranking by importance, identifying structural and logical relationships between them and can serve as a theoretical basis and basis for implementing a systematic approach to finding ways to solve the problem of increasing the competitive ability of meat products (Table 1).

No	Factors	Groups of factors
1	Policy: agricultural, financial and credit, price, investment, tax, customs and import	Macro-economic
2	Legal support, including competition laws	
3	Effective demand	
4	Competitive environment	
5	Scientific, technical and innovative potential	
6	Regional sectoral legislation, regional export-import policy, real and potential capacity of the regional market, degree of saturation, share of imported products, quality of raw material base, location, specialization, concentration, integration, cooperation, geographical location, resource potential and natural and climatic conditions, demographic situation	Meso-economic
7	Production: feed base, technologies for growing and processing meat and raw materials, their effectiveness, level of technical equipment, human resources	Micro-economic
8	Organizational: specialization, concentration, integration, cooperation, organization and remuneration	
9	Market: belonging to the group of social goods, fierce competition, stability and elasticity of the market	
10	Marketing: differentiation of goods from consumer preferences, perishable nature, the presence of	
	special transportation conditions, the need for primary processing, cutting, packaging, logistics of	
	goods, distribution channels, forms and conditions of delivery, payment	
11	Geographical location, resource potential and climatic conditions, demographic situation	Natural

 Table 1.

 Classification of factors shaping the competitive ability of meat products.

In the proposed system of factors, the priority role belongs to state regulation of the development of competition and the competitive environment, due to its instability. Effectively organized state regulation is aimed at creating a favorable competitive environment and ensures the protection of fair competition, contributing to its development. Based on the above approach, we examined the main factors of increasing the competitiveness of the production of meat products and the direction of public administration of this process.

Our position is that ensuring a high level of competitiveness of domestic production of meat in modern conditions is possible due to two interrelated groups of factors: the effective activity of agricultural producers based on the

implementation of an innovative development model and the implementation of a flexible and operational mechanism for the state to influence the country's food system as the organizer and coordinator of the processes of large-scale modernization of production and the formation of a favorable market environment.

Analysis and generalization of the existing scientific views on the problem of regulation of the competitive environment and the competitiveness of the national economy, regional and sectoral systems, as well as the practice of their application, made it possible to determine our position on this issue, which includes the following provisions: the need to increase the role of the state in the formation and management of the competitive environment raising questions of the competitive ability of domestic products to the rank of state policy, taking into account the specifics of agriculture and creating favorable conditions for it in comparison with related industries. The main directions of state management of the competitive environment of domestic production of meat, in our opinion, are: monitoring and creating conditions for the innovative development of the domestic meat and food subcomplex, taking into account changes in internal and external factors; improvement of competition policy; development of market infrastructure, development of risk protection mechanisms; the formation of a national system of product standardization and production certification that is consistent with international requirements to ensure consumer rights to purchase quality and safe products.

Improving the management of the competitive environment and competitiveness in the agricultural food market, including the meat sector, requires improving the methodological foundations of the management process. The disadvantages of the current mechanisms include: the limited tools used, which prevents the creation of conditions for the comprehensive protection and development of competition, including issues of evaluating the level and analysis of competitiveness; the use of traditional methods of planning livestock production based on intra-industry data on the dynamics of livestock and animal productivity without taking into account the main resource factors and changes in their condition based on innovation; imperfection of competition regulation, including the legislative sphere; lack of coherence and coordination of international cooperation in the field of protection of competition, preservation of anti-competitive actions of authorities and their officials; unreasonably high administrative barriers to entry of new entrants to the market and others. The presence of these problems hinders the development of a competitive environment and creates sustainable incentives for entrepreneurs to limit production and trade.

The development of a competitive environment in meat market requires certain conditions: legislative frameworks, including mechanisms to prevent over-regulation of the institutional environment, developed infrastructure and ensuring its accessibility for participants in the meat products market. The control system is formed by a subsystem of goals and principles. The management of the competitive environment should be consistent with the objectives of its development – the formation of competitive production and the protection of consumer interests.

In the paper, the management of the competitive environment is considered as a complex process, including the identification and systematization of factors influencing it, the selection of criteria, measures and indicators for its evaluation, constant monitoring of ongoing changes, the development and implementation of managerial actions within the framework of the chosen strategy for the development of the competitive environment. Competition and competitiveness management, in our opinion, should go in 3 directions: creating a competitive environment, regulating competition and supporting the competitiveness of domestic products in the domestic and foreign markets (Figure 1).



Figure 1. The main directions of public management of competition and competitive ability.

The impact of the state is carried out in legal forms and provides for the presence of the following factors: organizational structures of the state apparatus, including the regulation of the functions assigned to it, the complex of methods, means and resources used, direct and inverse relationships between subjects and objects of management. The study found that the state implements a passive strategy in creating a competitive environment and managing competition and competitiveness, as a result of which imperfect competitive relations are formed between participants in the meat products market. We have analyzed the results of the implementation by the market entities of the main marketing strategies in the established competitive environment (Table 2). In the course of analysis of the meat products market, we found that the level of development of elements of the existing competitive environment in the market does not sufficiently stimulate its participants to produce competitive products at cost, price and quality.

#### Table 2.

Stimulating and limiting factors for increasing competitive advantages of meat producers according to various marketing strategies.

Strategies	Real opportunity of usage	Limiting factors
Prime cost reduction	Available to a large number of farms capable of competitively expanding the production of meat	<ul> <li>Low level of production efficiency.</li> <li>Lack of factors of intensification of production on an innovative basis.</li> <li>Inefficiency of the existing logistics systems of distribution.</li> <li>Imperfection of the mechanism of profit distribution in the channel "production, processing, sales".</li> </ul>
Quality improvement	In horizontally and vertically integrated entities operating on a contractual basis	<ul> <li>Inadequate level of market infrastructure development.</li> <li>Low share of products produced by vertically integrated marketing systems.</li> <li>Weak correlation of price with quality level.</li> <li>Lack of exchange trading in standardized contracts.</li> <li>Lack of modern material and technical base for the introduction of innovative technologies for meat processing and storage.</li> <li>Inefficiency of the existing logistics systems of distribution.</li> </ul>
Market segmentation	In horizontally and vertically integrated entities operating on a contractual basis	<ul> <li>Differentiation of consumers by income.</li> <li>High proportion of consumers with low consumer demand.</li> <li>Inadequate level of development of direct relations with wholesale and retail enterprises.</li> <li>Saturation of the market with imported low-quality meat.</li> </ul>
Product differentiation	In horizontally and vertically integrated formations and meat industry enterprises	<ul> <li>Saturation of the market with imported low-quality cheap meat.</li> <li>Low quality of domestic meat raw materials.</li> <li>Inadequate level of development of direct relations with wholesale and retail enterprises.</li> </ul>
Immediate response to market needs	In integrated formations, including grain-producing farms and feed mills	<ul> <li>Decrease in solvent consumer demand for meat products.</li> <li>Lack of specialized meat cattle breeding.</li> <li>Inadequate level of market infrastructure development.</li> <li>Lack of modern material and technical base.</li> </ul>

The process of managing the competitive environment and competitiveness requires the availability of effective instruments for their evaluation. The competitive ability of production is a complex phenomenon that cannot be described using individual particular characteristics, the values of which can vary quite contradictory. To eliminate the noted problem, an integrated indicator is introduced. Testing of the proposed methodology was carried out on the meat and food market of the countries of Central Asia according to data for 2015-2018 (Table 3), which allowed ranking the regions according to the level of the criterion indicator, rating the main factors to justify measures to manage the competitiveness of individual objects. In our studies, the following are substantiated: indicators of evaluating the level of competitive ability, including the values of cost, sales prices, and coefficient of performance.

Countries	Cost of sales, USD/kg			g Se	Selling price, USD/kg		Performance ratio			Integral indicator of competitiveness (rating number)			Regional Competitivity Rating		
	Cattle	Sheep	Poultry	Cattle	Sheep	Poultry	Cattle	Sheep	Poultry	Cattle	Sheep	Poultry	Cattle	Sheep	Poultry
Kazakhstan	3.95	3.30	2.45	3.90	3.65	2.86	-0.013	0.106	0.167	12	6	8	1	1	1
Uzbekistan	3.85	4.68	2.49	3.94	4.28	2.32	0.023	-0.085	-0.068	10	16	14	2	3	2
Kyrgyzstan	3.92	4.05	3.93	3.62	3.77	3.19	-0.077	-0.069	-0.188	16	14	18	3	2	3
Average	3.91	4.01	2.96	3.82	3.90	2.79	-0.023	-0.027	-0.057	-	-	-	-	-	-

 Table 3.

 Competitivity rating of livestock and poultry meat production in Central Asia, average for 2015-2018.

An algorithm for calculating an integrated indicator, which involves the following steps – building private ratings for each indicator, summing rating numbers and determining an integrated indicator for each competitor; the methodology of using the proposed instruments in a comparative analysis of the competitiveness of meat products. Our competitiveness evaluation methodology involves the use of public reporting data, which minimizes the subjectivity of evaluations in the face of an imperfect market.

The improvement of methodological approaches to planning and forecasting meat production in innovative models for the development of the industry is based on our position on the priority role of the feed base in the system of its resource provision, substantiated in research. When calculating the forecast scenarios for the development of meat production, it is proposed to consider the inertial and innovative models of the development of the feed production system, the first of which involves the use of currently available feed resources, and the second provides for their increase due to the introduction of intensive and adaptive technologies of field and meadow fodder production. To reduce the cost of production of sheep and goat meat and, on this basis, increase its competitiveness, it is proposed to use the resources of natural hayfields and pastures to the maximum, to implement a model of their intensive use. The development of cattle breeding and poultry farming should be based on increasing the bioconversion of feed by improving the genetic characteristics of animals, mastering intensive technologies for their keeping, creating large agro-industrial associations of enterprises for the production, processing and sale of products that are combined on a contractual basis and work on a single commercial result to increase their competitiveness.

Our position on the development of the methodological foundations of competition management in the meat products market consists of the following main provisions: the need to increase the role of the state; regulation should be carried out in the direction of expanding indirect methods of influencing market processes, consistent with the conditions of state support and protection for WTO members; the main objective of state regulation is the formation of a competitive environment and competitive advantages of domestic producers; state support should be provided only taking into account the innovative component of projects; the development of competition laws should be focused on the formation and observance of parity relations between manufacturers, in the field of processing, storage and trade; strengthening state influence on production in order to control compliance with quality and safety standards of domestic and imported products. Currently, there is a significant underutilization of production capacities of enterprises of the meat processing industry of Kazakhstan: slaughter rooms of meat plants by 65%, sausage department – by 36%.

The current state of the material and technical base of the industry is characterized by a high degree of its physical and moral depreciation, while 45% of technological equipment requires immediate replacement, mechanization and automation of production processes does not exceed 55%. The deterioration of technological equipment does not allow the introduction of innovative technologies in production, leads to high costs, and prevents the expansion of the product range, which negatively affects the competitive ability of the region's meat processing enterprises.

Thus, we can conclude that the achieved level of meat production and processing is not sufficient to ensure high competitiveness in the regional market of meat products. The research of the main characteristics of the market for meat products subcomplex shows that the self-sufficiency of the population of Kazakhstan with meat is increasing and is at the level of 76-92% (Table 4). To conduct a parallel study of the market growth rates and its concentration, we used the Growth-Share Matrix, which is a graphical representation of the meat market position in the strategic space "growth rate/market share" (Figure 2).

Table 4.

Indicators		Years						
	2014	2015	2016	2017	2018	to 2014		
Population, thousand people	17236	17498	17769	18045	18327	106.3		
Norm of meat consumption, kg/year	78.4	78.4	78.4	78.4	78.4	100.0		
Standard consumption, ths. tons	1351	1378	1393	1415	1437	106.4		
Actual meat production (slaughter weight), thd tons	900	931	961	1018	1060	117.8		
Meat production per capita, kg	52.2	53.2	54.1	59.7	57.8	110.7		
Meat consumption per capita, kg	63.5	63.4	63.9	64.4	64.9	102.2		
Actual market capacity, ths. tons	1094	1109	1135	1162	1189	108.7		
Funding ratio, %	81.0	80.5	81.5	82.1	82.3	+1.3		
Market saturation, %	82.2	83.9	84.7	87.6	89.2	+7.0		
Supply/Demand matching indicator, %	101.5	104.2	103.9	106.7	108.4	+6.9		



Figure 2. Growth-share matrix for Kazakhstan meat market.

The current trends cannot be unambiguously assessed: on the one hand, the low level of competition provides incentives for the development of the business environment, and on the other hand, in this situation there is no interest in modernizing production on innovative bases. Analysis of the market of meat processing enterprises in Kazakhstan (Table 5) indicates the formation of a highly competitive environment on it. The meat market is in a state of positional growth (0.9 < Tt < 1.14). The strength of influence from competitors is characterized by stability and a high level, which is caused by the presence of leading enterprises with a high market share: Petropavlovsk meat processing plant, Ural "World Group Company" (the indicator of the intensity of competition in the distribution of shares varies within 0.89-0.91).

Indicators	Years							
	2014	2015	2016	2017	2018			
The number of large meat and poultry plants, units	18	19	20	21	22			
Market dynamics	0.9	1.20	1.23	1.06	1.14			
The intensity of competition in market dynamics	0.71	0.29	0.24	0.49	0.37			
The intensity of competition on the market profitability	0.85	0.97	0.97	0.91	0.88			
The intensity of competition in the distribution of market shares	0.89	0.91	0.90	0.89	0.89			
A general indicator of the intensity of competition	0.49	0.51	0.46	0.63	0.54			
Market concentration ratio CR – 3, %	54.0	54.7	59.9	63.5	65.6			
Herfindahl-Hirschman Index	1499	1567	1856	2085	2230			
Lind Index	0.975	1.143	1.254	1.302	1.357			

 Table 5.

 Indicators characterizing the competitive environment of the meat market of Kazakhstan.

The dynamics of the indicators presented in the table indicates an increase in market concentration: in the period 2014-2018. the share of large sellers increased from 18 to 22 units, the market concentration coefficient CR-3 increased by 11.6 percentage points, the Gerfindahl-Hirschman index amounted to 2230, which indicates the formation of a trend of transition from a moderately concentrated to a highly concentrated market. The Lind Index rose to 1.357, which reflects the development of processes to reduce the security of the market for normal competition due to increased competition between its major players.

The market segmentation strategy, which involves the formation of competitive advantages in the production of livestock and poultry meat for a specific consumer demand, is difficult to implement in modern conditions due to the low purchasing power of the bulk of the region's population, low prices, often not compensating domestic producers for costs to ensure regulatory profitability and achieve higher competitive ability; entry into the regional market of low-quality imported briquetted meat. In the process of researching the regional market of meat products, it was also revealed that the current market situation is characterized by a gap between supply and demand, rising prices for grain and animal feed, maintaining gray meat imports at dumping prices, excessive diversification of distribution channels, which requires optimization, a significant number of intermediary links in the sale of meat, which leads to their appreciation, widespread informal shadow relations of participants in the meat market that impede normal economic turnover, inequality in relation to the costs of profit distribution in the channel "production, processing, sale".

Globalization of the food consumer market has actualized the problem of ensuring the quality and safety of food products and reducing the risks of their negative impact on human health, putting it among the most important strategic tasks of any country. To solve this problem, the most effective tool, in our opinion, is the quality management system for food safety (QMSFS), which provides an integrated approach to addressing quality and safety management issues at a food enterprise. We have developed and proposed a model for managing the quality of products of meat processing industry enterprises, which includes as one of the blocks a Hazard Analysis and Critical Control Point (HACCP) system, the adaptation of which to Kazakhstani practice provides for their updating within the framework of structured specialized and consistent quality management systems (QMS). The safety and quality of the finished product is ensured through the joint efforts of all parties involved in the production process. The organizational structure of the quality and management safety system (QMSS) in the production of meat products, developed on the basis of the conceptual provisions of the HACCP is presented in Figure 3.

An obligatory stage of implementation in the QMSS marketing system in the production of meat products is the certification of technological processes at all stages of production and bringing the finished product to the consumer: production of cattle and poultry gain, slaughter of cattle and primary processing of raw meat, deep industrial processing and production of ready-to-eat meat products, their storage, packaging, transportation and sale. National and international standards establish mandatory requirements for the safety of meat products and determine leading standards for its quality and safety, which helps to increase the competitiveness of domestic products, eliminate trade barriers, protect the rights and interests of buyers, protect the environment with a view to global harmonization of ways to manage safety in meat products chains.

In order to ensure coordinated quality and safety management in the production of meat products, the paper substantiates the need to create a system of information computer support for management and information exchange between the subjects of the marketing system, which provides for the collection, processing, storage, protection and transmission of information on the conformity of technological parameters of processes in control critical points requirements of standards. The results of the functioning of the information system will serve as the basis for the adoption of adequate managerial decisions aimed at eliminating the identified deviations through the development and application of corrective actions, the organization of accounting and document management, confirming the implementation of corrections, procedures for checking the viability of the system.

# 4 Discussion

The logical result of the development of economic relations in the conditions of market transformations is the transformation of Kazakhstan into an open economic system and its integration into the world economic community. In these conditions, the problem of increasing the competitive ability of domestic producers becomes particularly acute and relevant, and its solution requires clarification of some theoretical positions: the development of a categorical apparatus; clarification of classification features and systematization of competitive factors based on them; substantiation of the role of the state in the development of a competitive environment and competitive ability in modern conditions. The development of competition and the formation of a favorable competitive environment in modern economic conditions are decisive factors in increasing the competitive ability of market participants.

The evolution of the theory of market competition allows us to conclude the strengthening of its role in the economy, changing forms and mechanisms of manifestation. The presence of a number of issues requiring additional research,

and the emergence of new ones is explained by the fact that competition, on the one hand, is an essential function, a prerequisite for the existence of the market, and on the other, the result of its development. Being a mechanism for regulating economic proportions, a special way of interaction between market entities, competition reveals its economic nature through the deconcentrating of economic power and its distribution among market agents, which stimulates their development. The concept of the category of "competition" is in a state of evolutionary development as a result of the influence of the views of representatives of leading scientific schools, which determined the orientation of entrepreneurial activity at various stages of its development. A generalization of the available scientific results allows us to state that the category under study is characterized by a complex essence, universality, dynamism, versatility, and relativity. The dialectic of the essence of the classical school, as an automatic balancing mechanism of the market, to the consideration of competition as a developing force of society. Based on a functional approach, neoclassicists note in the essence of competition its focus on the struggle of the "new with the old" in the process of obtaining and transmitting knowledge.



Figure 3. Organization chart of a quality and safety control system for a hazard analysis and critical control points (HACCP).

While modern economic schools, defining competition as an institution, note its instability and the possibility of rapid transformation into a monopoly, or other form of an imperfect market, which strengthens the importance of managing these processes and requires clarification of the role of the state in them. When considering the factors of competitiveness formation of meat products, it is necessary to take into account the specific features of the meat processing industry in comparison with other sectors of the economy. These features, according to the paper, are reflected in the following.

Most of the meat and its processed products are essential goods, acting as a socially important type of food, therefore the state is obliged to ensure its physical and economic accessibility for the whole population. Demand for livestock products in the face of rising retail food prices is characterized by less elasticity for meat and greater elasticity for processed products, which determines a relatively stable demand for the first group of products. The livestock market, although to a lesser extent than other grocery markets, is characterized by seasonality of production, and therefore, even with relatively stable demand, there is a need to create stocks of freshly frozen meat and other processed products. The climatic and biological factors and the location of the enterprise have a huge impact on the competitive ability of meat products, which makes it necessary to combine specialization and diversification of production.

Meat is a perishable product, not subject to long-term storage in an unprocessed form and requiring special equipment and appropriate sales channels, as well as special requirements for the production technology and packaging of products; which determines the desire of the producer to sell products as soon as possible, and also requires the creation of an extensive, multi-channel system for promoting goods, backup storage and refrigeration capacities, a significant proportion of primary processing, which increases costs, both in the production of products and in the entire marketing chain.

In the market under study, the final consumer immediately receives only a small fraction of the output. Its main part goes through several levels of distribution channels, coming to wholesale and retail intermediaries, therefore, the share of the agricultural producer in the final, market price of the goods is low. A producer of meat products acts as a seller in commodity markets and a buyer in raw material markets; the possibilities of production and supply of meat products are determined by the ratio of prices for agricultural products and acquired resources. The nature of the raw material largely determines the potential possibilities of its processing and use of finished products; meat fluctuations are characterized by significant quality fluctuations depending on the species composition and technology of raising animals; this, as well as a high degree of differentiation of the product range requires a quick update of quality standards and methods for its determination.

The insufficient development of the raw material base leads to the fact that the meat processing industry of Kazakhstan is forced to work in conditions of a shortage of high-quality raw materials of domestic production. Despite the success of recent years in import substitution of poultry and sheep products, the dependence of Kazakhstan producers on the supply of imported raw materials is still great. This problem is even more acute in relation to pig breeding. This is reflected in the final results of economic activity, since it determines a strong dependence on the supply of imported raw materials, on world prices for it, customs legislation, etc. At the same time, there is the possibility of mass production of meat in almost all regions of the country, but so far personal subsidiary plots of the population are one of the main sources of supplying meat to the population, which have separate indicators (the safety of young animals, live weight of animals sold for slaughter), which exceed the corresponding indicators of agricultural enterprises.

The efficiency of the work of small enterprises for slaughtering livestock is much lower than that of multi-unit enterprises, since comprehensive processing of livestock is necessary using all the starting components, from the most valuable elements for consumers (meat, endocrine-enzymatic, intestinal, fat-containing raw materials, skins) to paunch content going for feed purposes; and in small enterprises, as a rule, a significant part of the feedstock from slaughter of animals is not processed, which leads to enormous losses nationwide. When processing meat into sausage, culinary and other products, high-tech equipment is also required, therefore, small enterprises should raise their technical and technological level.

The meat market is characterized by a large set of types of products sold on it and segmentation by territorial basis, the local nature of supply and demand under the influence of territorial characteristics; Also, the market can be segmented by certain categories of consumers (for example, by age), the functional orientation of the products (preventive, therapeutic, dietary), consumer properties (various fat content). The basis for increasing the supply of products is scientific and technological progress. The meat products market can be classified as moderately concentrated, but the level of market concentration and the degree of unequal presence of economic entities on the market is constantly increasing. At the same time, the rate of competition is increasing due to a decrease in the growth opportunities of enterprises without clashing with the interests of competitors.

Due to the high investment attractiveness of the industry and a decrease in market growth, there is an active consolidation and increased presence of foreign capital. Large companies, due to the size of production and increased control over the entire production cycle, from raising livestock to selling meat products, reduce initial costs, lower price, and crowd out small producers. Evaluating the entry barriers to the meat products market, it can be noted that it is accessible to potential competitors, and the most difficult to overcome barriers are: vertical integration, economies of scale, high initial investment, product differentiation, and poor development of market infrastructure. The meat processing industry of Kazakhstan is characterized by a high proportion of labor costs.

The meat processing industry has a stimulating effect on the development of related industries. The economic effect of investment programs is quite high: in addition to increasing production in certain industries, each job in the meat processing industry creates jobs in related industries. In many countries of the world, the production of meat and its processed products is the locomotive of agricultural development; the structure of raw materials consumed contributes to the cultivation of certain crops. This specific feature of the industry, as well as the need to develop a raw material base, are reflected in cooperation and integration between meat processing and agricultural companies, which contributes to the creation of profitable agricultural enterprises and vertically integrated holdings.

#### 5 Conclusion

In the course of the research, we clarified classification features for systematizing competitiveness factors, including the level of the economy, the nature of origin and impact, the sphere of production and circulation. A methodological approach to forecasting meat production has been developed, the essence of which is to use inertial and innovative models for the development of feed production as a base for calculating the potential, the first of which is based on actually available resources, and the second involves the introduction of adaptive and intensive production technologies in the field and meadow fodder production. In the process of analyzing the current state of livestock and poultry meat production, it was found that the main subjects of the meat market are farmery producers who compete with each other, but are not monopolists.

In order to implement the cooperation and integration strategy, the best option for the conditions of Kazakhstan is the creation of a vertically integrated formation with the inclusion of agricultural producers, a feed mill, meat processing and trading enterprises. This will expand the opportunities for developing production and sales markets, increase investment capital, and stabilize the raw material base of meat processing enterprises. Analysis of the competitive environment of the meat products market involves considering the market space in the form of three components: an evaluation of meat producers, consumers and regional differences. In general, the competitiveness of the region's subjects is expressed in the combined interaction of the elements of the market mechanism, instruments of state regulation, and the competitive advantages of the subjects. The result of this interaction largely depends on the basic advantages of the region. Calculations using the proposed improved methodology for evaluating market availability have shown that the market is accessible to new potential competitors. It is advisable to reduce the concentration of this market by expanding their geographical borders, which will contribute to the revitalization of local production, expanding the range and increasing mutual supplies between regions. The practice of the economically leading countries of the world allows us to conclude that the issues of competitive ability of domestic products should be elevated to the rank of state policy, it is necessary to take into account the specifics of agriculture and create favorable conditions for it in comparison with related industries.

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