



PRODUCT IN CHEESE PROCESSING PLANTS ANALYSIS OF PRODUCTION AND SALES SITUATION

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ABOUT ARTICLE

Key words: Cheese products, processing of cheese products, food industry, innovation, international experience, types of cheese, cheese composition, food problems, milk processing plants.

Received: 20.06.2024

Accepted: 25.06.2024

Published: 30.06.2024

Abstract: In this article, the volume of product production in cheese processing enterprises, the analysis of the sales situation, international experiences, new reforms being carried out in our country, new opportunities being created, the types and composition of cheese products, scientific research work, the activities of cheese processing enterprises, economic co A number of issues related to indicators and statistical analysis are scientifically explained.

INTRODUCTION

Increasing the competitiveness of food industry enterprises is becoming a need of the hour. Even in developed countries, new innovations, projects and cooperation programs aimed at developing the food industry and increasing its competitiveness are expanding year by year. The main goal of this is to ensure the needs of the world's population for food products and to implement new opportunities aimed at increasing the competitiveness of food industry enterprises. Today, the food industry on a global scale is one of the largest main types of industry, which includes many industries, among which enterprises specializing in processing dairy products are in the leading position. Because the demand for processing dairy products in the food industry is increasing year by year. The reason is that almost 3/2 of the world's population is a lover of dairy products. That is why the potential of dairy processing enterprises is highly valued among food industry enterprises. If we look at the experience of the world today, among the food products, the most purchased and consumed food products by the population are meat, bread and dairy products.

Among the milk processing enterprises, one of the best developing directions is the direction of production and processing of cheese products. Because cheese products are dairy products that are loved and sold quickly, and are becoming a profitable direction. A number of modern requirements are imposed on cheese processing enterprises in developed countries, which include the following requirements. In particular, ecologically clean and high-quality products, a wide range of products, competitive, occupying the domestic market, in the form of a new brand, with a halal certificate, meeting

international standards, made from local resources, processed based on innovative technologies, minimal cost, modern packaging that can be designed and manufactured and processed at affordable prices are the demands of today.

Through these demands, the opportunities for production and processing of cheese products at a high-quality and competitive level are increasing worldwide. Therefore, the application of modern requirements to enterprises specializing in the processing of cheese products in our country ensures the emergence of new opportunities and serves to conduct new research in this direction.

LITERATURE REVIEW

F.Hayek, Dj.Robbinson, R.Lucas, Y.Liu, X.Wang, K.Łukiewska, M.Juchniewicz, F.Nyamakwere, G In the research works of scientists such as Esposito, K.Dzama and E.Raffrenato[2], mainly the production of quality products in food industry enterprises and increase of competitiveness, development of food industry based on the cluster system, organizational development of food industry enterprises, agro-industry a number of scientific studies aimed at increasing the competitiveness of agricultural products based on the cluster and increasing the production and competitiveness of cheese products have been carried out.

In the scientific research works of such scientists as K.Volkova, N.Pokrashinskaya, L.Kilimova, M.Cherkashin, A.Pykhtin, T.Kolmykova, T.Koliada[3] who conducted scientific research work on the development of the food industry scientific research aimed at increasing the quality of competitive products in food industry enterprises and developing the economic efficiency of food industry clusters has been researched.

B. Salimov, M. Yusupov, A. Burkhanov, Z. Khakimov, Ch. Murodov, Sh. Hasanov, I. G'aniev, T. T. Jo' among the economists of our Republic who conducted scientific research on improving the food industry and agro-industry based on the cluster system. raev, I.Khotamov, T.Khidirov [4] mainly focused on the issues of developing the activities of food industry enterprises, ensuring food safety, managing the agro-industrial system based on the cluster system, and developing milk processing enterprises based on the cluster system. a number of scientific research works have been carried out.

In the scientific research work of the above-mentioned foreign, MDX and our republican economists, scientific research works aimed mainly at increasing the competitiveness of food industry enterprises, developing the economic efficiency of food industry enterprises, expanding processing capabilities and improving the cluster system were carried out.

However, the issues aimed at increasing the competitiveness of cheese processing enterprises, production of cheese products, organization and improvement of clusters in cheese production enterprises have not been fully covered in the research work, and no scientific research work has been carried out on this topic.

METODOLOGY

This article used a number of methods to study the research problem. In particular, research problems were studied based on methods such as logical thinking, systematic approach, economic comparison, statistical analysis, observation and comparative analysis. Relying on existing methodological approaches, the article makes extensive use of scientific results based on the study of scientific research aimed at increasing product production and competitiveness in cheese processing enterprises.

RESULTS

Mamlakatimizda oziq-ovqat sanoati korxonalarida raqobatbardoshlikni oshirishga A number of new decrees and strategies have been adopted by the Honorable President regarding the wide implementation of foreign experiences aimed at increasing the competitiveness of food industry enterprises in our country, and large-scale new reforms are being implemented in our country. In particular, the year 2023 of the President of the Republic of Uzbekistan

On September 11, Decree No. PF-158[1] was adopted on the "Uzbekistan - 2030" strategy. Within the framework of this decree, "to double the size of the economy by 2030 and join the ranks of countries with higher than average income, increase the share of technological products produced in industry

Increase labor productivity in the processing industry from 25% to 32%

2-fold increase, development of "driver" sectors of industry and full use of industrial potential of regions, volume of added value in industry

The tasks of reaching 45 billion dollars" were set. In solving these tasks, it creates new opportunities for research in a number of directions aimed at developing new directions for improving the competitiveness of food industry enterprises, expanding the innovative possibilities of increasing the competitiveness of dairy and cheese processing enterprises. Today, the demand for milk and dairy products is increasing even among the population of our country. Because we are considered a nation that loves to consume milk and milk products. However, milk and milk products are becoming more expensive every year. The reason for this is a number of local problems. In order to solve these problems, scientific research work is being conducted in this direction. As part of the research work, the activities of enterprises, farms, cheese shops and clusters specializing in the production and processing of milk and cheese products located mainly in Samarkand region, their economic indicators were analyzed and the state of selling cheese products was fully studied.

Currently, a number of large, medium and small enterprises specializing in the production and processing of milk and cheese products are operating in the Republic of Uzbekistan. In particular, the well-known brands of large enterprises in our country that produce and process milk and cheese products, whose products are popular, have achieved macro-economic indicators, and work with innovative technologies, are as follows.

It is shown in Fig. 1..



Figure 1. Well-known brands of enterprises that produce and process milk and cheese products in our country

Source; Developed by the author based on Internet information

The brands that produce milk and cheese products shown in this picture are well-known brand products of enterprises that have taken over the milk market in our country today. In all regions, milk and cheese products under this brand are known as the most popular, high-quality, competitive, ecologically clean and branded products.

Nowadays, a large segment of the population loves to consume milk and cheese products of the above-mentioned enterprises. These brands are located in different regions of our Republic, and the Pure Milky brand is the most developed brand among them. The Pure Milky brand was founded in 2013 and is located in Tayloq district, Samarkand region.

Currently, it is operating as a Pure Milky Works enterprise with modern innovative machines that produces milk products under the Pure Milky brand, operating on the basis of a cluster system. This enterprise mainly specializes in the production and processing of milk and cheese products and includes several factories. At Pure Milky Works, more than 40 dairy products are produced on the basis of high-quality technologies and are processed and sold as ready-made products for public consumption.

There are many small, medium, large and cluster enterprises producing and processing dairy products in our country.

However, small, medium, large and cluster-type enterprises dealing with individual cheese products specializing in the processing of cheese products are rarely operating as a separate sector.

Cheese processing enterprises currently operate as a separate branch of enterprises that produce and process dairy products and in the form of small cheese factories.

One of the main goals of the research work is to expand the activities of cheese shops specializing in processing cheese products and turn them into a separate independent network that operates as large co-operatives. As part of milk processing enterprises, it operates as a direction, but it lags behind the indicators of development at the competitive level. It will not be possible to operate as a separate

network and large enterprise. In developed countries, large enterprises and factories specializing in the processing of cheese products operate as a separate large network.

Cheese product is a food product made by freezing and processing milk. Cheese is mainly produced from cow, sheep, goat, buffalo or horse milk and their mixture.

It contains 15-27% easily digestible protein, including essential amino acids, 20-32% fat, as well as calcium, phosphorus salts and vitamins (1.5-3.4%). The calorie content of 100 g of high-quality cheese is 350-400 kcal.

Cheese has dietary and healing properties, it is light and almost completely digestible. Depending on the method of coagulation of milk, rennet cheese and yogurt cheese are made.

There are hard, salty and soft types of Shirdon cheese. Hard cheese is divided into Swiss, Russian, Dutch, Kostroma, Yaroslav cheese and other types of cheese. Cheeses with a gentle, soft consistency are divided into Medinsk, Roquefort, Dorogo-buj and other oily cheeses. Salted cheeses include brinza, dushin cheese, and others. They differ from other cheeses in that they are produced in Namakob. Hard cheeses mainly include heated cheeses and other types of cheeses.

About 700 types of cheeses are known today, with different chemical composition and taste. The production of soft cheese and brinza is widely established in Uzbekistan's dairy enterprises. There are more than 100 types of cheese in the world. They differ from each other by which animal the milk was taken from, how long it was stored, how much fat it contains, and a number of other qualities. The color of cheeses can be from yellow-green to red. Some cheeses have bubbles. Cheese contains fat, protein, and calcium and phosphorus minerals for a long time, so it is very useful for people who need these substances.

One of the international rating organizations is "Taste Atlas", which is an authoritative international organization on traditional cuisine, which publishes recipes, reviews of food critics and research articles. According to its 2023 data, the ranking of the 100 most popular cheeses in the world was announced. According to it, the types of cheeses shown in Table 1 below are among the top 10 in the world.

Table 1
Top 10 types of cheeses in the world

| # | The type of cheese | Content |
|----|------------------------------------|---|
| 1. | Motsarella (Mozzarella) | freshly made, white, light, Italian cheese. |
| 2. | Cheddar (Cheddar) | semi-hard, yellowish, popular English cheese. |
| 3. | Feta (Feta) | a traditional Greek cheese made from goat's milk with a sour taste. |
| 4. | Rikotta (Ricotta) | a soft, curdled, whey-based Italian cheese. |
| 5. | Parmezan (Parmigiano Reggiano) | hard, sharp Italian cheese. |
| 6. | Gauda (Gouda) | a hard Dutch cheese made from cow's milk. |
| 7. | Bri yoki Bri de Mo (Brie de Meaux) | soft, white soft mold, French cheese. |
| 8. | Panir (Paneer) | soft Indian cheese made fresh in namakob. |
| 9. | Gorgonzola (Gorgonzola) | a famous Italian cheese with a blue mold. |

| | | |
|-----|--|---|
| 10. | Kamamber yoki Normandcha Kamamber (Camembert de Normandie) | soft-fat, salty-flavored, moldy, French cheese. |
|-----|--|---|

The cheeses listed in Table 1 are the most popular cheeses in the world and are among the top 10 cheeses in the top 100 ranking. From their preparation to processing technology, attention is given at a competitive level. The most profitable cheese brands and enterprises with a high level of processing are considered to be the most profitable cheese brands that occupy the world market. The production and processing technology of each of them is different, and the composition and countries of preparation are also different from each other. It is clear from this that it is the need of the hour to bring cheese production and processing enterprises in our country to the top 10 in the world ranking. This requires the implementation of new innovative solutions.

If we look at the analysis of the production and sale of cheese products of well-known brands in our country during the research work, in the following table 2, the well-known brands sell cheese products in national markets, hypermarkets, large sales branches, basket chains and other types of trade networks according to the population as of 2024 The analysis of purchase and sale prices by trade networks was studied.

Table 2
Average selling prices of cheese products as of 2024
macro level analysis

| # | Cheese names | Volume | Fat level | Average selling prices |
|---|-------------------|--------|-----------|------------------------|
| Cheese products of the Pure Milky enterprise | | | | |
| 1 | Cheese | 250 g | 45 % | 18000-27000 UZS |
| 2 | Gauda | 1 kg | 50 % | 92000-110000 UZS |
| 3 | Children's cheese | 40 gr | 23 % | 4000-5600 UZS |
| 4 | Soft cheese | 250 g | 45 % | 19000-35000 UZS |
| 5 | Brinza | 1 gk | 45 % | 63000-75000 UZS |
| Cheese products of "Melek Best Milk Agro" enterprise | | | | |
| 1 | Cheese | 250 g | 45 % | 19000-24000 UZS |
| 2 | Gauda | 1 kg | 50 % | 90000-108000 UZS |
| 3 | Children's cheese | 40 gr | 23 % | 4200-5500 UZS |
| 4 | Soft cheese | 250 g | 45 % | 17000-28000 UZS |
| 5 | Brinza | 1 kg | 45 % | 62000-73000 UZS |
| Cheese products of Essi enterprise | | | | |
| 1 | Cheese | 250 g | 45 % | 20000-22000 UZS |
| 2 | Gauda | 1 kg | 50 % | 88000-105000 UZS |
| 3 | Children's cheese | 40 gr | 23 % | 4300-5400 UZS |
| 4 | Soft cheese | 250 g | 45 % | 16000-27000 UZS |
| 5 | Brinza | 1 kg | 45 % | 60000-71000 UZS |
| Cheese products of Kamilka enterprise | | | | |
| 1 | Cheese | 250 g | 45 % | 21000-26000 UZS |

| | | | | |
|--|-------------------|-------|------|------------------|
| 2 | Gauda | 1 kg | 50 % | 90000-102000 UZS |
| 3 | Children's cheese | 40 gr | 23 % | 4000-5500 UZS |
| 4 | Soft cheese | 250 g | 45 % | 17000-25000 UZS |
| 5 | Brinza | 1 kg | 45 % | 58000-68000 UZS |
| Cheese products of Musaffo Sut enterprise | | | | |
| 1 | Cheese | 250 g | 45 % | 18000-23000 UZS |
| 2 | Gauda | 1 kg | 50 % | 85000-98000 UZS |
| 3 | Children's cheese | 40 gr | 23 % | 4200-5600 UZS |
| 4 | Soft cheese | 250 g | 45 % | 18000-30000 UZS |
| 5 | Brinza | 1 kg | 45 % | 61000-67000 UZS |

This table 2 contains a macro-level analysis of the sales prices of 5 different types of cheese products as of 2024 of 5 well-known enterprises that grow and process dairy products in our country. are brands that have taken over hypermarkets. Their average selling prices were analyzed in national currency. It can be seen that the level of consumption of different types of cheese products by the population is increasing and the purchase prices are increasing year by year. The reason for this is that the costs are high and competitive large enterprises do not show competition, and the implementation of new innovative solutions in order to increase competitiveness and introduce separate honest competition among enterprises that produce cheese products ensures the emergence of new opportunities. .

As part of the research work, the activities of enterprises, farms, clusters and workshops specialized in processing milk and cheese products located mainly in Samarkand region were studied and analyzed. As a result of the analysis, the production volume, processing capabilities, types of products, infrastructures, economic indicators, internal and external factors aimed at increasing competitiveness of the enterprises, and the sales situation were analyzed. The number of enterprises producing and processing milk and cheese products is large in Samarkand region, and the volume of production of milk and cheese products in Samarkand region is shown in Table 3 below. This is mainly in the cities and districts of Samarkand region

During 2019-2023, the indicators of the volume of production of milk and cheese products are cited.

Table 3

Production indicators of milk and cheese products in Samarkand region for 2019-2023 (tons)

| # | City and district names | 2019 years | 2020 years | 2021 years | 2022 years | 2023 years |
|-----------------|-------------------------|------------|------------|------------|------------|------------|
| 1 | Samarkand city | 6 828,0 | 6 988,0 | 7 022,4 | 5 975,4 | 7 202,5 |
| 2 | Kattakorgan city | 10 577,1 | 10 805,3 | 10 853,0 | 8 633,5 | 9 619,7 |
| regions: | | | | | | |
| 3 | Akdarya | 60 988,4 | 63 965,3 | 67 188,8 | 71 215,9 | 79 310,8 |
| 4 | Bulungur | 81 584,9 | 83 921,2 | 86 958,8 | 107 897,6 | 98 932,1 |
| 5 | Jomboy | 81 681,1 | 82 768,6 | 85 880,9 | 94 085,7 | 99 819,2 |

| | | | | | | |
|-----------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 6 | Istikhan | 122 309,0 | 126 484,4 | 127 255,1 | 105 964,9 | 137 254,6 |
| 7 | Kattakurgan | 145 057,5 | 149 565,4 | 152 290,1 | 160 465,4 | 137 415,8 |
| 8 | Koshrabod | 58 828,6 | 60 739,0 | 62 423,7 | 64 486,4 | 65 464,6 |
| 9 | Narpay | 79 554,8 | 81 501,0 | 83 151,1 | 96 757,9 | 87 438,5 |
| 10 | Foot | 129 847,7 | 132 647,5 | 133 175,6 | 163 746,0 | 142 874,3 |
| 11 | Pasdargam | 120 688,1 | 124 654,0 | 127 999,8 | 128 130,8 | 137 694,4 |
| 12 | Cotton | 63 543,7 | 64 581,6 | 68 349,8 | 66 970,5 | 70 713,8 |
| 13 | Samarkand | 52 321,1 | 53 037,4 | 53 297,2 | 51 166,7 | 57 219,0 |
| 14 | Nurabad | 43 349,8 | 44 693,7 | 47 075,3 | 47 135,7 | 49 553,3 |
| 15 | Urgut | 118 699,1 | 122 502,3 | 124 548,4 | 123 764,2 | 133 569,9 |
| 16 | Taylaq | 98 079,1 | 98 439,3 | 83 547,0 | 82 032,4 | 89 400,5 |
| Overall: | | 1 273 938,0 | 1 307 294,0 | 1 321 017,0 | 1 378 429,0 | 1 403 483,0 |

This table 3 mainly shows the volume of milk and cheese products produced and processed during 2019-2023 in the cities and districts of Samarkand region. These indicators correspond to all categories of farms. It includes the share of all farms, peasant farms and agricultural enterprises in the region. The above indicators were formed based on the share of these 3 farms. Analyzing, in the last 5 years good growth rates have been observed at the level of the region. However, in the section of cities and districts, in 2022, the production indicators decreased in Samarkand city, Kattakorgan city and Tailaq district, and in 2023, in Bulung'ur, Kattakorgan, Narpay and Poyarik districts. It is noted that production indicators have decreased.

It can be seen that internal and external factors aimed at reducing production in these cities and districts. In order to avoid such problems with a reduced level of competitiveness, it is necessary to introduce new innovations in these areas. As a result, the ground is created for the expansion of new opportunities.

CONCLUSIONS

In conclusion, it should be said that today the volume of production and processing of cheese products in our country is growing rapidly. The reason for this is the growing demand of the population for cheese products, and the need to produce new types of cheese is felt.

Product in cheese processing plants

We believe that the following basic principles should be used to improve the production and sales situation, including:

- study of international experiences and new innovations in enterprises and factories processing cheese products;
- analysis of production and processing possibilities in enterprises processing cheese products, which are among the top 100 in the world ranking;
- reduce costs, develop enterprises that produce cheese products as a separate industry by removing them from the dairy industry;

- providing new incentives for producers of cheese products;
 - all-round economic support for korokhnas producing cheese products;
 - creation of new opportunities aimed at increasing the competitiveness of korokhnalai producing cheese products;
 - development of innovative solutions aimed at expanding sales opportunities and increasing product volume;
 - the most important issues to be resolved are the allocation of preferential loans and the implementation of new programs for enterprises aimed at eliminating existing problems.
- The implementation of these issues and their development will serve to increase the volume of product production in cheese processing enterprises and ensure the rapid growth of sales opportunities.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan "On the strategy of "Uzbekistan - 2030" No. PF-158". September 11, 2023.-www.lex.uz
2. Xayek F. Prices and production. Chelyabinsk: Sotsium, 2008.
3. Lucas R. On the Mechanism of Economic Development //Journal of Monetary Economics. Vol.22.July. P. 3-42. 1988.
4. Liu Y., Wang X. "Promoting Competitiveness of Green Brand of Agricultural Products Based on Agricultural Industry Cluster," Wireless Communications and Mobile Computing, vol. 2022, Article ID 7824638, 2 page, 2022.
5. Lukiewska K., Juchniewicz M. Identification of the Relationships between Competitive Potential and Competitive Position of the Food Industry in the European Union. Sustainability 2021, 13, 4160.
6. Volkova K. Theory and methodology for the development of the total financial and economic potential of organizations in the agri-food sector in the context of digitalization for the award of the academic degree "Doctor of Economic Sciences" in the direction of 3.8 economics Sofia 2023.
7. Kilimova L., Cherkashin M., Pykhtin A., Kolmykova T., Managing the innovative development of the food industry BIO Web of Conferences 32, 03017 (2021) <https://doi.org/10.1051/bioconf/20213203017> Problems and Prospects of Scientific and Innovative Support of the Agro-Industrial Complex of the Regions 2021.
8. Salimov B., Yusupov M. "Factors of increasing the competitiveness and export potential of agricultural products", "Economy and innovative technologies" scientific electronic journal. No. 6, November-December, 2014. -p. 4.
9. Burkhanov A. "Method of assessing the financial stability of industrial enterprises", "Economy and innovative technologies" scientific electronic journal. No. 6, November-December, 2018. - p. 3-4.
10. "Cheese" OZME. Letter P Volume One. Tashkent, 2000.
11. TOP-100: the leader rating of the most popular and the most popular version of "Taste Atlas" February 17, 2023.
12. Information of the Council of Farmers, Farms and Homestead Land Owners of Samarkand Region.