

IMPROVING ORGANIZATIONAL AND ECONOMIC DEVELOPMENT OF THE FOOD INDUSTRY BY IMPLEMENTING THE EXPERIENCE OF DEVELOPED COUNTRIES

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Abstract

It is known that the total population of the world is growing rapidly. In particular, according to the analyzes of the United Nations (UN), the world population in 2024 will be 8.2 billion. person, this indicator will reach 9.7 billion by 2050. it is expected to reach a person [1]. In addition, the problem of not being able to provide the population with food products in many countries due to factors such as the geopolitical problems that have occurred in the last 10-15 years and the impact of global climate changes on the economy, structural changes in economic processes, as well as the reduction of irrigated land and increasing drought being observed.

Keywords: Uzbekistan, USA, Germany, Russia, Italy, food, food industry, food shortage, management, project, money circulation model.

Introduction

The Resolution of the Cabinet of Ministers of the Republic of Uzbekistan on measures to implement the project “Sustainable Management of Pastures and Forests in Drought-Prone Ecosystems of Uzbekistan” with the participation of the Food and Agriculture Organization of the United Nations and the Global Environment Facility (GEF) provides for the allocation of a grant by the Global Environment Facility (hereinafter referred to as the GEF) for a period of 5 years to finance the project “Sustainable Management of Pastures and Forests in Drought-Prone Ecosystems of Uzbekistan” (hereinafter referred to as the Project);

The Ministry of Ecology, Environmental Protection and Climate Change and the Ministry of Agriculture of the Republic of Uzbekistan are designated as the general executors and providers of technical assistance for the implementation of the Project;

During the project implementation period, the Office of the Food and Agriculture Organization of the United Nations (hereinafter referred to as FAO) in Uzbekistan will act as the responsible implementing body. [2].



There is no correlation between the increase in the demand for food products and its production in the world. Especially in recent years, due to the geopolitical situation, global pandemic, climate change, high inflation and unemployment, more than 690-780 million people in the world are facing the problem of hunger [3]. In particular, 55 percent of the hunger problem is in Asia, 38 percent in Africa, 6 percent in Latin America and the Caribbean, and the rest in North America, Europe, and Oceania [4].

Eliminating the shortage of food products observed in the world and ensuring food safety is the main and strategic task of every country, and its optimal solution is the sustainable development of the food industry, including agriculture. The development of the food industry is important not only in providing the population with food products, but also in increasing the high-income sector and employment. In particular, from the market of food products China 1630 billion, USA 1011 billion. and Italy 201.7 billion. If the income is in the amount of US dollars, Germany's trade turnover of only packaged food products is 114.9 billion. is US dollars. Also, 7.6 million in Canada. and 2 million in Russia. more people are employed in the food industry [5].

In Uzbekistan, providing the population with food products is one of the urgent issues, and in 2023, on the basis of the industry, 65174.7 billion will be produced in the republic. soums of food products and 17968.3 bln. Soum beverages were produced, as well as 404,648.6 bln. 1962.4 billion soums of agricultural products were grown during this period. 4141.8 billion soums of food products were imported. soums of food products were exported [6]. These numbers will further develop the food industry in our country, and by joining the ranks of the major exporters of food products, it will be possible to turn the food industry into a profitable sector and thereby make additional investments in the country's economy.

In the next period, intensive reforms are being carried out in our country in the direction of increasing the volume of food production and processing and expanding the export of finished products. In particular, the "Uzbekistan - 2023" strategy was adopted by the decree of the President of the Republic of Uzbekistan No. PF-158 dated September 11, 2023. It defines important tasks such as food processing, increasing the share of technological products produced in the industry from 25% to 32%, doubling the labor productivity in the processing industry, and ensuring that the rate of processing of agricultural products is higher than 25% [7]. Ensuring the fulfillment of the above tasks, as well as the organization and economic development of the food industry requires conducting scientific research and determines the relevance of the research topic.

"The new development strategy of Uzbekistan for 2022-2026" approved by the decree of the President of the Republic of Uzbekistan No. PF-60 of January 28, 2022, No. PF-36 of February 16, 2024 "On additional measures to ensure food security in the Republic" , Decree No. PF-217 of December 28, 2023 "On measures to ensure the stability of the prices of basic types of food products in consumer markets", as well as December 22, 2021 "Research of reforms in the food and agriculture sector, strategic planning and "On measures to further improve the management system" No. PQ-58, No. PQ-471 of September 9, 2020 "On measures to rapidly develop the food industry of the Republic and fully provide the population with quality food products" , No. PQ-4643 dated March 18, 2020 "On measures to further improve the



agricultural and food industry management system", July 29, 2019 "Additional measures on further development of agricultural products and food industry" This research work serves to a certain extent the implementation of the tasks defined in the decisions of PQ-4406 and the normative-legal documents related to this field.

Literature review

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In our country, the issues of providing the population with food products, developing agricultural production and food production and processing industry network, reducing the import and increasing the export of food products Berkinov B.B., Makhmudov N., Abduganiev O. .A., Abulkosimov Kh.P., Bekenov S.S., Mamarakhimov B.E., Kobilov Sh.R., Saidova D.N., Rasulov T.S., Rustamova I.B., Nazarova F., Mukhtorov A., Saidakhmedova N.I., Umarov I.Yu., Tolipova B.F., Mamatkulov M.Sh. scientists like researched.

However, in the above scientific researches, the problems of the country's food security, its independence, providing the population with food products, deep processing of agricultural products, and further development of food production industries were considered in detail. However, the improvement of the organizational and economic mechanisms of the development of the food industry was not considered as a research object, therefore, this area was chosen as a research topic.

Analysis and results

According to Harvard University research, the food supply chain includes the processes of growing (production), processing, distribution, retailing, and consumption of food, and it is expressed as a model of the flow of food and money (Figure 1)[9].



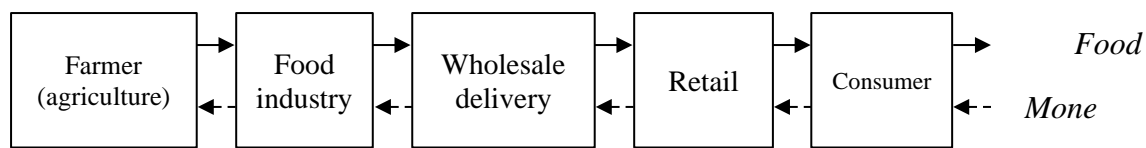


Figure 1. Model of circulation of food and money

First of all, what are food products? Or what does it contain? It is appropriate for us to find answers to such questions. For many years, continuous scientific researches have been carried out on the development of food products, their composition and their production.

In particular, according to the research of S. Sardak and others, "food" includes:

- collected natural plant products (for example, seaweed, mushrooms, berries, etc.);
- natural animal products (fish and seafood, wild animals, wild animal eggs, etc.);
- cultivated plant products (at home and in production conditions);
- animal products (in domestic and production conditions);
- artificially produced food products (for example, some types of non-alcoholic and alcoholic drinks);
- combined products (industrially produced food products).

Generally speaking, food is a collection of food products (natural and industrially or culinarily processed) suitable for direct consumption [10].

Food products are processed, semi-processed or raw materials intended for human consumption and beverages, as well as chemical additives used in processin [11].

According to D. Kulev and others, food products consist of food raw materials, agricultural products and beverages [12].

Based on the above opinions and other scientific research studies and observations, in our opinion, food products include food raw materials (chemicals used in agriculture and food industry and edible artificial food additives), food products (agricultural economy, sea and food industry products), consumable beverages (carbonated, non-carbonated and alcoholic beverages) and various means used in other processes in the food chain can be included (Figure 2).

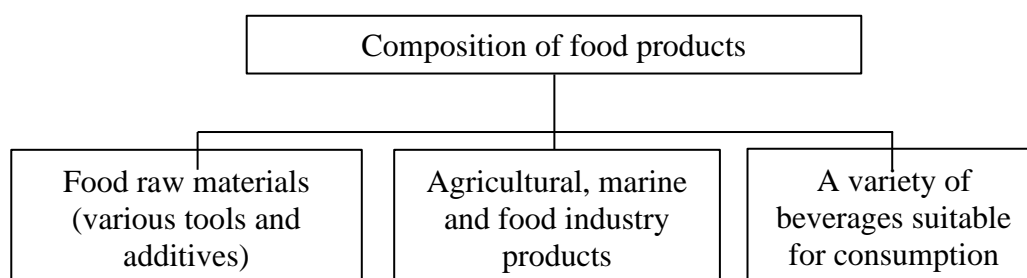


Figure 2. Composition of food products

So what kind of industry is the food industry, considered an important and integral part of the food chain?

According to A. Chichikin, the food industry is the most important priority for ensuring food safety [13].

It is known that most of the food raw materials are products grown in agriculture and taken directly from the sea (ocean, sea, river, lake, reservoirs, canals and other water bodies), and most of them are processed on an industrial basis. All over the world, on the basis of this process, food products are produced and the security of food supply to the population is created. In general, the food industry is the production of finished or semi-finished food products, as well as tea, soap, tobacco products and detergents. Therefore, the food industry is one of the most important and important branches of industry, because it produces food products necessary for people [14].

In other words, the food industry as an economic branch describes the development characteristics of the productive forces and production relations of food production industries that provide the population of the country with basic food products.

In other words, the food industry is one of the sectors that provides the preparation, transportation, storage, processing and sale of the final product of agricultural raw materials, that is, it is an industrial sector focused on the processing of agricultural raw materials.

According to Yu. Gusarova [15] and the food industry is a unit of consumption purposes of the produced final food products, as a rule, it is a part of the whole industry that unites agricultural raw material processing enterprises. Also, the role and importance of the food industry is determined by its production of food products.

Based on this, it can be said that the food industry is not only an industrial branch that processes agricultural and marine products, but also includes several stages in the chain of food supply to the population. That is, the food industry consists of several components.

Therefore, the food industry plays an important role in meeting the needs of society for the availability, distribution and quality of food products. The food processing industry is characterized by relatively perishable, bulky and seasonal food products [16].

In this regard, international food industry companies also point out that the food industry is not a single industry, but a combination of several types of industries that produce different food products. It also covers farming, food production, food processing, storage, packaging, distribution, retail and catering. The food industry includes the following components [17]:

1) Agriculture. It is the process of producing food, feed, fiber and other necessary products. It also includes crop production, animal husbandry and fish farming. It also covers the production of agricultural machinery, fertilizers, agricultural plant seeds to facilitate the production of agricultural products.

2) Food processing. Most of the agricultural products are seasonal and perishable products. Food processing turns raw materials into marketable food products. That is, by packaging seasonal agricultural products, it protects food products from the environment, extends their shelf life, and improves food quality.



3) Food distribution. This includes the transportation, storage and sale of food products to consumers. It uses a transport network to integrate a large number of processes in the food industry.

4) Control. Of course, there are regulations on the production and distribution of food products to ensure quality and safety, which are restrictions imposed by the government. The food industry must meet certain regulatory requirements to function normally.

5) Financial services. This includes insurance and loans to facilitate food production and distribution. Insurance policies cover financial losses (damages) that are common in the industry. Therefore, food accounting professionals must work closely with all aspects of the food industry to evaluate ideas and opportunities.

6) Research and development. Research in any direction of the food industry produces relevant information about this industry. Today, the food service sector has the greatest potential for research and development. The object of these studies is mainly the factors affecting consumer behavior, purchasing choices of customers, attitudes and opinions.

7) Marketing. Marketing is a major and effective means of promoting information about food products. Food marketing describes any form of advertising used to encourage the purchase and consumption of food or beverages. It can influence eating behavior by regulating sociocultural elements of the food environment.

In particular, the organizational aspects of the development of the food industry are economic reforms, a stable raw material base, market and transport infrastructure, scientific and technical progress, organizational aspects and effective methods of management, and the existence of a competitive environment.



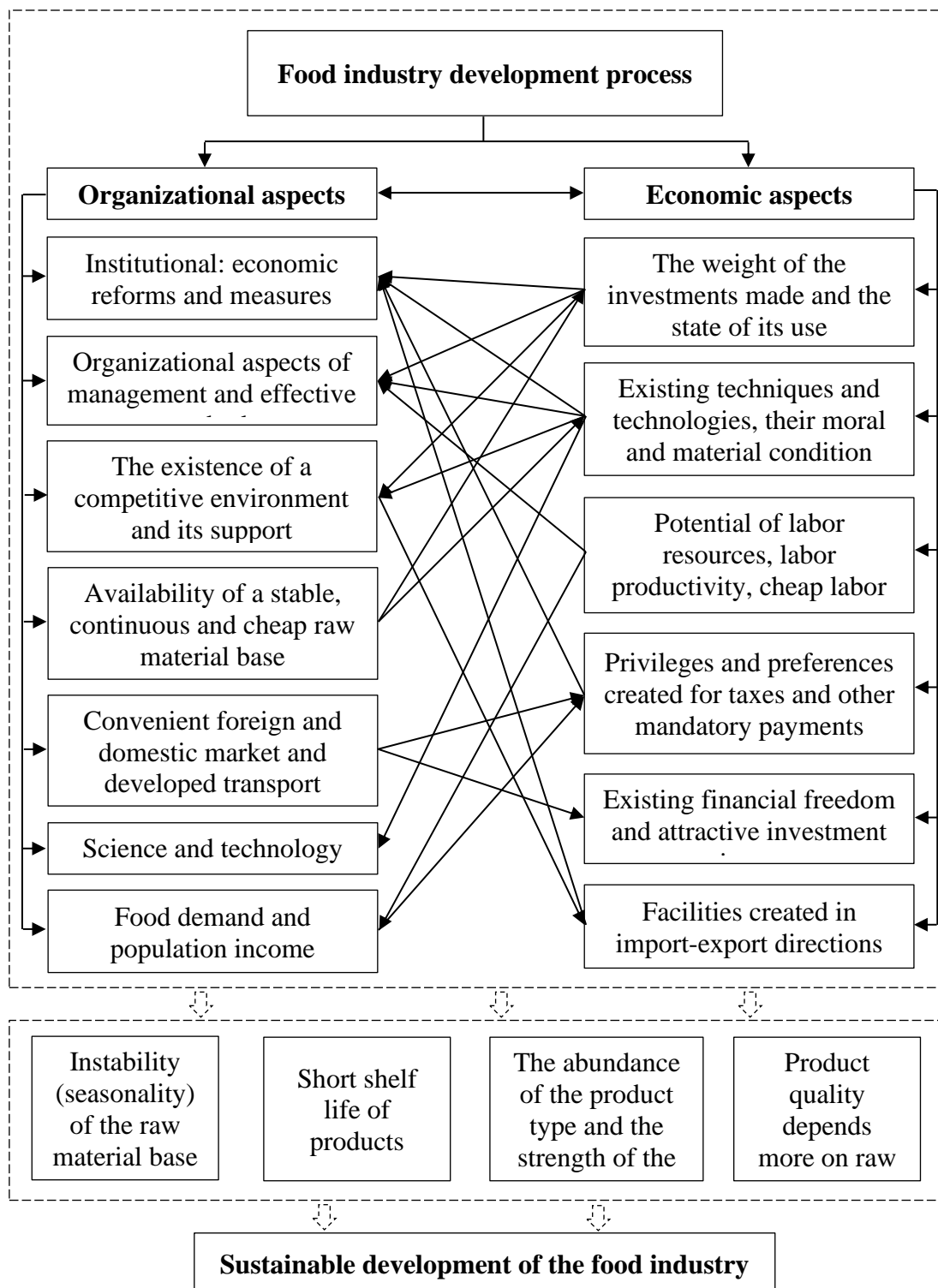


Figure 3. The mechanism of organizational and economic development of the food industry [18]

In general, the development of the infrastructure of the food industry is achieved on the basis of the comprehensive support of local food production enterprises and the creation of necessary conditions. It is in this respect that the infrastructure of the food industry is a complex and multi-stage process. Research shows that if all the processes in the food chain system are interrelated and these processes are developed in parallel, it will be appropriate. If any process within the system is inefficient, then the entire food chain system will be inefficient. Therefore, it is important to take into account the full range of organizational, economic and legal aspects when developing food industry infrastructure development programs.

Based on the above, the main factors affecting the organizational and economic development of the food industry and the increase in production capacity and their interrelation can be expressed as follows (Figure 4).

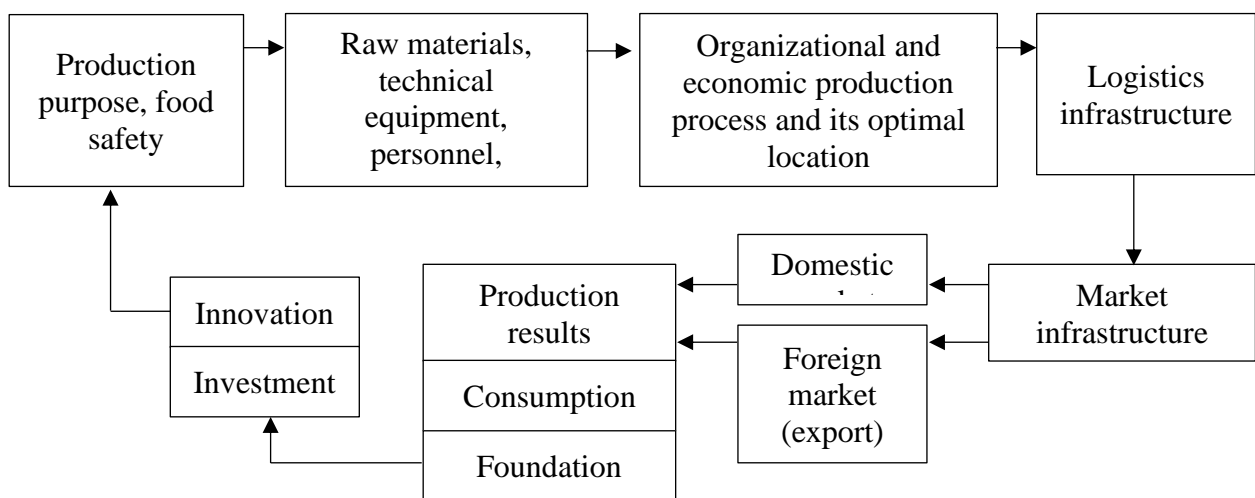


Figure 4. Organizational and economic development of the food industry mechanism
[18]

The Canadian experience. According to the Canadian Government (Government of Canada), in 2022, the products of the food and beverage processing industry will be worth 156.5 billion dollars, it makes up 18.2% of total industrial products and 1.7% of GDP. About 70 percent of the country's food and beverage products are fully processed and exported to about 200 countries. 77% of food exports are from the USA, 6% from China and 4% from Japan, and the remaining 13% from other countries. Also, 25 percent (\$38.5 billion) of the trade of food and beverage processing industry products is accounted for by meat products, while the trade of grain and oilseed products is 20.3 billion dollars. dollars and the trade of dairy products is 17.4 billion. is a dollar.

The Italian experience. In the country, the food industry plays an important role in the manufacturing industry, as it is the third most important sector of the industry (9.5% of the GDP) after the machinery and textile sectors. The Italian food industry is characterized by the following [19]:

- special attention is paid to quality and productivity in the production of food products;

- effective integration processes of the food industry with agriculture and other related sectors are established;
- the retail trade of food products is strongly developed, bringing high and stable income to the food industry system;
- specialization of interregional enterprises in the country is highly organized, it is distinguished by the majority of foreign enterprises in the food industry and agriculture.

The German experience. Germany is a country with a well-developed food processing industry and access to all food components. In particular, effective use of food waste has been established.

According to the data, in 2022, the retail sales volume in the market of packaged food products in Germany will be 114.9 billion. amounted to US dollars. Germany is the 4th largest packaged food market in the world.

The experience of the Netherlands. The strategy for the development of agro-industry and agriculture in the country includes expanding sustainable food production, improving access to quality food, and increasing the share of private sector representatives in food production [20].

In addition, one of the main factors in such a high development of the food industry in the country is the wide application of scientific achievements in these processes. In particular, it can be seen in the improvement of productive seed production and breeding of productive livestock animals, as well as in the innovative organization of food production processes.

It should be said separately that the Netherlands is the 5th most powerful knowledge-based economy in the world. Also, scientific research and innovations are one of the main factors of agro-industry development in the country. It is for this reason that the country invests heavily in high-quality research to develop new, functional and organic agricultural food products and to diversify existing products.

The Chinese experience. Food production in China focuses not only on satisfying hunger, but also on aspects of health promotion and disease treatment.

According to research, more than 40% of Chinese consumers say they are willing to pay more for healthier (eco-friendly) food products.²

China's food industry consists of 4 main areas:

- 1) Processing of agricultural products;
- 2) Production of food products (by chemical methods);
- 3) Production of wines, beverages and teas;
- 4) Production of tobacco products.

Russian experience. According to the information of TsVK "Expocentr" of Russia, the food industry is important in the country's industry. It produces about 95% of the food consumed in



the country. The population spends $\frac{3}{4}$ of their income on it. Also, the food industry in Russia includes about 30 sectors and more than 60 types of production. All this unites more than 22 thousand enterprises engaged in various activities. About 2 million people work in them.

The share of multinational corporations and foreign investments in the Russian food industry is increasing. According to the BusinessStat survey, the share of foreign capital in the food industry in the Russian market is about 60 percent. In particular, 60 percent of foreign industrial enterprises in milk processing, 70 percent in juice production, almost 80 percent of the market of frozen vegetables and fruits, and more than 90 percent of the market of beer brewing and canned fruits and vegetables are carried out with the participation of foreign capital. Domestic companies are mainly leaders in the meat processing and bakery industries, and large corporations are taking the place of small enterprises in the food industry [22].

Belarusian experience. By the end of the 20th century, there were a number of problems in providing the population with food products in this country. For example, the state of growing food products and processing them on an industrial basis in agriculture was not up to the demand. In order to solve these problems, the government should develop and implement an effective strategy for the development of the agrarian sector of the economy. Therefore, in its reforms, the government paid special attention to the intensive, efficient and stable operation of agricultural enterprises, strengthening their production potential, activating industrial processing and raising the standard of living of the population.

Conclusion

From the above-mentioned experiences of foreign countries with developed food industry, it is appropriate to apply the following in the conditions of Uzbekistan, in particular:

1. Subsidizing agricultural production processes and their processing industries (US experience). Because the activity of growing agricultural products has a cost in the full cycle of the process, and the income is expected only at the end of the process, and that too is not guaranteed. Naturally, not all business entities are interested in engaging in such activities. The activity of food production industry enterprises depends on high-level technologies and imported ingredients used in it, of course, for the sustainable development of these processes, large amounts of funds are required.
2. The food industry is also a comprehensive complex infrastructure, and it is necessary to pay special attention to the complex development of the food industry network, organizing the effective integration of all sectors and directions related to its development. It is also desirable to exploit food production processes, inform management and services in the field, wide use of digital technologies, and development of food industry parks (clusters) and electronic trade of food products (experiences of the USA, Canada, Australia).
3. It is desirable to pay special attention to quality and productivity in the production of food products, to effectively organize inter-sectoral integration, to ensure optimal specialization of the country's regions in terms of food industry enterprises, and to increase the share of foreign enterprises in the sector (Italian experience). Also, it is necessary to turn the food industry into



a high-profit industry through the sustainable development of retail trade (export) of food products.

4. In the effective operation of the food supply chain system, in particular, the food industry network, it is desirable to optimally distribute existing obligations among subjects (government, local authorities, organizations and enterprises) and freely organize the movement of subjects (lack of bureaucracy) (Canadian experience). Such an approach increases responsibility (responsibility) in ensuring food security in the country. It is through a systematic approach that corporate productivity is achieved. It is also possible to achieve intensive efficiency in agriculture by establishing "vertical" farming in food production.

5. Applying a strategy based on a systematic approach and strong technological solutions in the food supply chain, increasing efficiency due to cost reduction based on minimizing losses during the processing of food products (raw materials) (*Germanyexperience*) is possible. It is known that raw materials for food products are grown mainly in agriculture. It is at this stage of the food chain of our country that the loss of food products (raw materials) is high, especially during the period of "singing".

6. In the production of food products, taking into account not only hunger-satisfying means, but also aspects of health promotion and treatment of diseases will increase the competitiveness of manufactured products. Also, in order to provide food industry enterprises with cheap raw materials, tax incentives should be given to farmers (family enterprises in agriculture) (China's experience). 8. In order to further develop the food industry and increase the export of finished products, it is necessary to increase the share of multinational corporations and foreign investments in the industry. It is also desirable to reduce costs, reduce product costs, and increase quality by increasing the share of innovative technologies by comprehensively supporting the network's timely modernization of the technical base (Russia's experience).

7. Strategies and measures related to the prospects of ensuring food security and food industry development in the country are necessary to ensure a balance between forecast parameters and existing resource bases, as well as to improve targeted development strategies aimed at eliminating possible imbalances (Belarusian experience) .

8. One of the most optimal solutions is the use of the "knowledge-based economy" strategy in the organizational and economic development of the food industry (Netherlands experience). This principle has brought the Netherlands to the fifth place in the list of countries with the strongest knowledge-based economy in the world. Therefore, it is desirable to organize the food industry network and its related fields on the basis of scientific achievements, to develop and effectively organize the effective integration of scientific research institutes and network enterprises.

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