MODERN MANAGEMENT REVIEW **2020**
MMR, vol. XXV, 27 (1/2020), p. 13-20 **January-March**

Olena CHEREDNICHENKO[1]

AN ANALYSIS OF THE CURRENT STATE OF THE FOOD INDUSTRY OF UKRAINE AND DETERMINING THE PROSPECTS FOR ITS DEVELOPMENT

The aim of this work is to analyze the current state of the food industry of Ukraine and consideration of its development prospects under the set priorities of national economy development and the preconditions for establishing favorable entrepreneurial climate in the food sector of national economy.
The main trends and factors contributing to the further development are outlined, the structure and the dynamics of characteristic indicators of activity of food industry enterprises; the author also outlines the directions and factors in increasing the efficiency of food industry enterprises functioning within the industrial complex of Ukraine. State regulation of the food industry should be focused on the development of production of high-tech innovative products with the highest possible added value, which will increase the competitiveness of food products and the level of industrial processing.

Keywords: industrial complex; food industry; meat; sausage products; processing; innovation.

1. INTRODUCTION

An effective activity of the domestic food industry enterprises is the basis for the stable development and necessary increase in the volume of food production, and, accordingly, the guarantee of an adequate level of food security of the country.

The production and provision of high quality foodstuffs to the population is the main goal of the socio-economic development of society. Accordingly, the prospects for the development and functioning of the food industry of the country are always relevant and priority. Ukraine's food industry is capable of delivering significant GDP growth and occupying one of the first positions in the global food market.

The author investigates the current state and prospects of the meat industry. Given the current problems of the economy, new approaches in the field of meat technology and healthy human nutrition, it is extremely important to realize the tasks that will contribute to the transition of the domestic food industry to a new level and sustainable development of the country, preserving the health of the Ukrainian nation, enhancing food security and improving the level of competitiveness of the national economy.

[1] Olena Cherednichenko**,** PhD, Department of Economics, Faculty of Economy, National University of Life and Environmental Sciences of Ukraine; e-mail: ya1971@ukr.net. ORCID: 0000-0001--8908-4113.

The purpose of the study is to substantiate the peculiarities of the development and to identify promising directions of development of the food industry of Ukraine. Previous studies analyzed various aspects of the development of the food industry in Ukraine and the meat processing industry in particular, and suggested recommendations for improving its efficiency. However, the development of the food industry requires constant monitoring of problems with political, financial, innovation and other aspects that are not sufficiently covered in scientific studies.

2. METHODS OF RESEARCH

The problem can be solved on the basis of the use of the dialectical method, as well as the application of the evolutionary approach – gradual development, which is based on continuous, gradual quantitative change. Economic-mathematical modeling is an effective tool for substantiation of perspective directions of development.

3. RESEARCH RESULTS

According to the author's conception of the approach, the realization of promising directions of development of the food industry with a stimulating role of the state should be carried out in all major areas simultaneously:

- improvement of tax, credit, monetary, customs and tariff policy, investment policy in order to create and maintain mutually beneficial cooperation between the state and enterprises, to create prerequisites for sustainable growth of the industrial economy, protection of domestic producers and the internal market of food products;
- changing the role and forms of direct economic regulation with a view to more closely linking the interests of different levels and business entities;
- improvement of the legislative policy aimed at creating a single and more or less stable legal space;
- development of state-owned enterprise in industry with the purpose of direct influence on the state on the management of industrial enterprises, first of all they form the scientific and technical potential of the industrial sector.

The importance of the meat industry is that it is, on the one hand, an indicator of the state of development of other sectors of agriculture, and on the other, characterizes the purchasing power and well-being of the population of the country. As the incomes in the structure of consumption of the main foodstuffs by the population increase, the share of products of the meat and fishing industries increases. Consumption of meat by one Ukrainian per year in recent years remains almost unchanged with slight fluctuations: in 2017 – 48.98 kg, or 4.08 kg per month, in 2018 – 48.45 kg and, accordingly, 4.04 kg, and in January–April 2019 – an average of 3.8 kg of meat per month. The overall structure of meat consumption is also stable, with a dominant proportion of poultry meat accounting for almost half of the diet of Ukrainians. In 2017, poultry meat consumption was 24.34 kg per person, or 49.7% of total meat consumption per year, in 2018 - 25.15 kg per person, or 51.9%, in January–April 2019 – 8.24 kg per month, or 54.3%.

The largest domestic producer of poultry meat is the agro-industrial holding “Mironovsky Hliboproduct” with a market share of 38%. The five major producers in the domestic market also include the Agromars complex, which occupies 12% of the poultry meat market, the Agro-Aries company with a 6% share of the market, the Dniprovsky Poultry Complex, Vladimir-Volyn Poultry Farm and Gubin Poultry Complex.

Pork and beef also traditionally occupy a leading role in the structure of meat consumption. Pork consumption in 2017 was 13.8 kg per person, or 6.76% of total meat consumed per year, in 2018 – 12.6 kg per person, or 6.1%.

The largest pork producers in Ukraine are companies such as APK-Invest, Danosha, Nyva Pereyaslavshchyna, Globinskiy Pig Complex and Agroprodservice.

Outbreaks of African swine fever have continued to be a major problem for producers of this type of meat and continue to be recorded throughout Ukraine, leading to mass destruction of livestock. For example, the company with foreign investment “Galicia-West”, which is one of the TOP-10 largest domestic producers of pork, is forced to dispose of tens of thousands of pig carcasses in 2018 because of the detection of this disease. Accordingly, it has significantly affected the processors who suffer from underutilization of production facilities.

But many pork processing companies are still expanding and improving their own production facilities. For example, in the Lviv region, LembergMit opened a new meat processing plant in 2018, investing more than 20 million UAH in production in 2016–2018.

Domestic production of pork almost completely provides the domestic market of the country, and export potential is limited due to the spread of African swine fever.

Beef consumption in 2017 was 3.09 kg per person, or 6.3% of total meat consumed per year, in 2018 – 5.4 kg per person, or 2.62%. The volume of lamb production in the country is small.

Despite the fact that the most expensive and time consuming type of meat is beef, domestic production here can be highly competitive, provided the necessary requirements for the safety performance of this type of product are met. In addition, these products have great market potential for a wide range of consumers, almost unbounded by religious views such as pork. However, fattening and in-depth processing of beef meat is one of the most unrealized niches of Ukrainian business today.

Modern processing in Ukraine is mostly primary, not adapted to specific markets. Therefore, deep, expensive and efficient processing is required to expand the markets for sales, improve the quality of products, increase their product range.

Overall, in 2019, domestic beef and lamb production decreased by a quarter. Nodular dermatitis in cattle, which has been recorded in Ukraine, played a significant role in this.

It was the reduction of beef and pork processing that led to structural changes in the type of meat production in favor of poultry meat (Table 1).

Table 1. Meat production in Ukraine by types, thousand tons

Product	**2012**	**2014**	**2016**	**2018**	**2018 to 2012, %**
Meat in slaughter weight	2209,6	2359,6	2323,6	2354,9	106,6
Beef and veal	388,5	412,7	375,6	358,9	92,4
Pork	700,8	742,6	747,6	702,6	100,3
Poultry meat	1074,7	1164,7	1166,8	1258,9	117,1
Mutton and goat	20,0	14,4	13,4	14,3	71,5
Other types of meat	25,6	25,2	20,2	20,2	78,9

Source: Bulletin of Statistical service of Ukraine (2019).

In all, by 2012, the production of slaughtered meat in Ukraine increased by 6.6%, or by 145.3 thousand tons, from 2012 to 2018. Although the largest production volume was observed in 2014. In 4 challenging years for the country, this figure was not reached in 2018.

The largest negative changes were recorded in lamb and goat production, volume decreased by 28.5%, and rabbit and horse meat production – by 21.1%. Beef and veal was also less produced by almost 30,000 tonnes, or 7.6%.

Significant increase in production was observed only for poultry meat, namely by 184.2 thousand tons or by 17.1%. Such positive changes have led to an increase in overall indicators.

Much of the raw material is used for the production of canned meat and semi-finished products, but the largest amount is for the production of sausages.

Sausage production makes up about 14.5% of the total meat production in Ukraine and 30% of the finished meat production. Consumption of sausage products can also be considered as an indicator of the well-being of the population.

The largest producers of sausage products in Ukraine are LLC Globinsky meat-packing plant, LLC "Ukrpromstach-95", meat-processing complex "Ukrainian bacon", Meat factory "Favorit plus", meat-packing plant "APK-Invest", Yatran Combine, Meat Guild Meat Factory, Alan Meat Processing Plant.

Due to the decrease in livestock population, nodular and nodular dermatitis in cattle, the epidemic in African swine fever pigs decreases the production of sausage products.

The most popular among domestic consumers are boiled and smoked sausages, which account for 69.2% and 17.3% of the total sausage production, respectively.

One of the most expensive segments of the sausage market are raw and smoked products that can be attributed to the delicacy market. The high prices for such products are due to the complexity of their production and the high proportion of meat in the structure of the finished product. But, in this case, consumers are focused first on taste and quality, and then on ingredients and value. The leaders of this market are JSC Yatran, Globino Corporation, Alan Meat Processing Plant.

Table 2 presents the dynamics of changes in the production of sausage products by meat processing enterprises in Ukraine.

Table 2. Production of sausage products by meat processing enterprises of Ukraine, thousand tons

Product	**2012**	**2014**	**2016**	**2018**	**2018 to 2012, %**
Sausage products	294	267	239	254	86,4
liver and similar products	6,2	6,9	6,2	5,6	90,3
boiled, sausages, wipes	188	171	156	168	89,4
semi-smoked	54,9	47,7	40,5	41,1	74,9
cooked smoked, semi-dried, uncooked, smoked	23,5	24,7	23,9	24,1	102,6
smoked and baked	8,7	4,9	3,2	3,4	39,1

Source: Bulletin of Statistical service of Ukraine (2019).

In the period from 2012 to 2018, the total production of sausage products in Ukraine decreased by 13.6%, namely by 40 thousand tons. The biggest negative changes are noted in the production of smoked and baked sausage products. Compared to 2012, their production decreased by almost 61%. As the sausage products boiled, sausages and sausages are the largest component of all sausage products produced, it is precisely the decline in their production that has influenced the total volume of all sausage products. During the period considered, the production of cooked sausages, sausages and sausages decreased by 20 thousand tons, ie this decrease accounts for half of the changes in the total production of sausage products.

Positive changes are noted only in the production of cooked, smoked, semi-dried, uncooked and smoked sausages by 2.6%, which only confirms the fact that there is a stable circle of consumers of these products, which give preference to its consumption, not paying attention to the various problems in society. This is a driving factor for manufacturers to expand this segment of the sausage products market.

In addition, 30% of the home-cooked and smoked sausages market in the domestic industry are in the shadow. Such a market is provided by small producers, mainly in the western regions of the country, who do not report to the fiscal service, selling products on the markets, as well as illegal transportation of sausages from Italy and Poland.

Consumption of meat delicacies is always the lowest due to high prices and occupies less than 10% of the market. The production of such products strongly depends on the level of welfare of the population. The most popular are ham, bacon, brisket and carbonate, which make up 84% of the total demand for delicacies. At the same time, this particular segment of the market remains more or less stable, since the buyers of these products do not abandon it either in the reduction of the general level of welfare or in times of crisis. The decline in beef and pork production, as well as the high supply of chicken in Ukraine contributed to the emergence of a variety of poultry delicacies such as smoked wings, rolls and more.

The largest manufacturers of delicacies in Ukraine are Firm Garmash, LLC Globinsky Meat Factory, PJSC “Kremenchuk Myaso”, JSC “Yatran”, Meat Factory “Favorit Plus”. Negative factors affecting the development of the industry may be a decrease in livestock, rising prices for raw materials and energy, reducing the purchasing power of the population, the loss of enterprises located in the Crimea and eastern Ukraine, the development of the shadow market segment.

In general, it should be noted that the modern domestic market for meat and meat products is consolidating. Large manufacturers create vertically integrated structures that fully cover the cycle of production and marketing of products, from livestock to retail sale of finished products. With regard to the meat market, its leading trends are a decrease in the production of basic raw materials and an increase in the share of cheaper meat, namely poultry, in its structure.

The meat market has been volatile lately due to many reasons, such as rising prices for animal feed and falling livestock due to the spread of disease. A gradual but rapid transition to the dominance of the meat substitutes market, namely vegetable proteins, laboratory meat and more, is projected to lead to a 70% fall in demand for beef in the next ten years.

Issues of quality and environmental safety of foodstuffs remain acute for Ukrainian producers and consumers, as their main criterion is their price. Most consumers have low solvency, and manufacturers are forced to use cheaper substitutes for raw materials. Food safety standards have not changed in state standards for many decades, and the lack of rigid government controls has led to the irresponsible attitude of many producers and the production of low quality products that could not compete in the world market.

The level of supply of raw materials, the relationship between suppliers of raw materials and processing enterprises, and the purchasing power of the population have a significant impact on the development of the food industry and the production of high value-added products.

The level of self-sufficiency of the Ukrainian food industry is quite high: most needs reach more than 90%. However, the level of supply of meat, fish and fruit and berry products due to the import of these food products is insufficient.

One of the promising areas of effective operation of the industry is the development of comprehensive integration links and the formation of integrated associations with a closed production cycle, which allows you to regulate costs, save costs, rational use of human and material resources.

The level of prices for foodstuffs and household incomes is always closely interconnected. The main driving force in market conditions is demand, so only solvent demand leads to an increase in supply from producers. In today's realities in Ukraine, the low standard of living of citizens is low, leading to changes in the structure of consumption of food by the population in favor of cheap and substandard foods. Accordingly, one of the main directions of development of the Ukrainian food market should be the production of high quality products, but at a reasonable price for a wide range of consumers. Therefore, food companies need to maintain their existing competitive position in the market and win new ones, improving product quality, modernizing production technologies, improving product marketing and providing affordable food prices for the population.

State regulation of the food industry should be focused on the development of production of high-tech innovative products with the highest possible added value, which will increase the competitiveness of food products and the level of industrial processing. In order to achieve this goal, the state must create favorable conditions for attracting investment.

In 2017, only 17.8% of the large and medium-sized food industry companies were engaged in innovative activities, most of which spent money on the purchase of machinery, equipment and software. On the whole, the expenditures of large and medium-sized enterprises for innovative activity in the field of food, beverage and tobacco production amounted to 1,402 million UAH, out of which 1,274.34 million UAH were enterprises' own funds, 113.29 million UAH – credits, and other funds – this is from local budgets and other sources.

Only 158 large and medium-sized enterprises in the food industry innovated, of which 98 introduced innovative processes, 89 innovated products, of which only 19 introduced new products for the market. 117 large and medium-sized enterprises sold innovative products worth 4711.87 million UAH, of which only 25 produced products that were new to the market worth 436.25 million UAH. Out of Ukraine, in 2017, 37 enterprises were sold innovative products worth 335.83 million UAH.

On the whole, the level of innovation activity in the food industry is very low. Insufficient working capital, lack of adequate state support and investment are reflected in the level of implementation of modern science and technology, which, in turn, adversely affects the technical equipment, production capacity of manufacturers and the quality of products produced. Therefore, the most important reasons for the lack of activation of innovative activity at the domestic food industry enterprises are: insufficient funds for the implementation of the latest innovative projects; high level of wear and tear of production facilities and outdated technologies, which requires considerable expenses for updating the technical and technological base and attracting highly qualified specialists; long payback period, etc. The good export potential of the domestic food industry attracts foreign investors, the industry ranks second after metallurgy in terms of foreign direct investment.

In recent years, Ukraine has faced major challenges due to economic and political shifts that have led to significant changes in trade and economic relations. The implementation of the FTA with the EU countries dramatically changes the direction of development of foreign trade relations, and trade preferences for Ukrainian enterprises contribute to the growth of food industry exports.

According to the Ministry of Agrarian Policy and Food of Ukraine, Ukrainian exporters have not been able to use all tariff quotas in full. In 2018, the under-utilized quota for poultry and poultry semi-finished products is underused – 59.2%, for eggs and albumins – 48.3%, for bran, waste and residues – 43.2%, for processed cereal products - 40 , 1%, oats – 36.5%, milk powder – 24.1%, processed milk products – 22.1%, barley, barley flour and granules – 16.6%, other sugar products – 15.9%, milk, cream, condensed milk and yoghurts – 15%, processed sugar products – 13.9%, ethanol – 10.4% and basic sugar tariff quota – 85% (Cherednichenko, 2017).

The main reasons for this situation were the inability of domestic producers to meet the requirements for compliance with standards of sanitary and phytosanitary measures and food safety due to differences in the standards of the system of standardization and certification of food products; the complexity of the situation directly on the EU market due to Russia's sanction regime against food imports and, consequently, oversaturation of its own production. Therefore, the orientation of increasing exports of food products needs to be extended not only to the available markets of the CIS and EU countries, but also to the Middle East, Asia and Africa. For example, dairy producers, such as PJSC “Zolotonissky Oil and Gas Plant”, PJSC “Yagotinsky Butter Plant”, have been certified by the European Commission and supply their products to the EU, China, UAE and other countries. Today Ukrainian producers supply products to markets of almost 190 countries.

4. CONCLUSION

According to these factors, the prospects for the development of food industry enterprises are as follows:

- reducing the cost of processing raw materials, the use of the latest technologies to improve the quality of food and reduce the price for the end consumer;
- creation of innovative products for additional income of the producer, expansion of the range of consumers of different contingent groups and maximum satisfaction of their needs;
- the formation of agro-industrial clusters that would ensure a continuous technological process of production, starting with the cultivation of agricultural products, their processing, production and sale of food;
- attraction of foreign investments for expansion of product range, updating of material and technical base, modernization of production process, introduction of resource-saving and low-waste productions and improvement of results of activity of enterprises;
- ensuring compliance with standards of sanitary and phyto-sanitary measures and food safety; implementation of the HACCP food safety system and other certification

systems; Orientation of domestic producers to foreign markets, increasing the competitiveness of products at the global level;

- improvement of the national regulatory policy in the sphere of foreign trade relations in order to increase the competitiveness of export of foodstuffs, to continue the protectionist policy towards the domestic commodity producer.

The realization of these tasks will help the transition of the domestic food industry to a new level and sustainable development of the country, preserve the health of the Ukrainian nation, enhance food security and increase the level of competitiveness of the national economy.

REFERENCES

Cherednichenko, O.O. (2007). *On the issue of production and preservation of quality of meat and meat products. "Scientific Bulletin Of the National Agrarian University"*, No. 110, Part 2.

Cherednichenko, O. (2017). *Economic aspects of manufacture and consumption of meat and meat products. "Agricultural and Resource Economics: International Scientific E-Journal"* [online], Vol. 3, No. 3. Access on the internet: available at: www.are-journal.com.

Dragan, O.I. (2010). *Preconditions and problems of development of meat industry enterprises in Ukraine. „Formation of market relations"*, № 6 (109).

Fedulova, I. (2015). *Methodical approaches to the determination of intra-productive prices on enterprises of the meat processing industry.* "Ukrainian Journal of Food Science", Vol. 3. Issue 2.

Kolyadenko, S.V. (2011). *Organizational and economic principles of livestock production in Ukraine.* "Sustainable economic development", № 6.

Naumova, E.A. (2011). *Current state and prospects of development of the sausage products market in Ukraine. "Business Inform."*, № 8.

Rudenko, M.V. (2010). *Problems of Meat Processing Enterprises of Ukraine in the Crisis. "Bulletin of KSU named after M. Ostrogradsky"*, Vip. 2 (61). Part 1.

Rusnak, P.P., Cherednichenko, O.O. (2007). *Activation of innovative activity in agro-industrial production. "Economics of AIC"*, Vol. 3.

Sedinkova, I.O. (2015). *Current status and management system of the meat complex. "Scientific Bulletin of the Kherson State University"*, Vip. 15. Part 3.

Yankov, V.O. (2010). *Meat Processing Industry, Status and Prospects for Development.* "Food Science and Technology", № 11.

Yemtsev, V.I. (2011). *Features of Formation of Competitiveness of Meat Industry Enterprises of Ukraine. "Scientific Bulletin of Uzhgorod Univ.".*

Zaremba, P.A. (2007). *The strategy of stabilization and development of meat processing enterprises:* [monograph] Donetsk: NAS of Ukraine, Institute of Industrial Economics.

DOI: 10.7862/rz.2020.mmr.2

The text was submitted to the editorial office: March 2020.
The text was accepted for publication: March 2020.