THE PROBLEM OF ENSURING THE ECONOMIC SECURITY OF DAIRY INDUSTRY IN UKRAINE

ABSTRACT. In this article the activities of economic security service of the enterprises of the dairy industry are investigated and a list of its main tasks is offered. The basic problems of providing economic security of today's dairy industry are revealed, the basic reasons for their occurrence are found. In particular, based on the analysis the state of the dairy market in Ukraine, the problems of quality and sufficiency of raw milk as an important aspect of ensuring the economic security of the enterprises of the dairy industry are investigated, the state and structure of cow herd, the structure of milk production by household categories are analyzed.

The existing preconditions of providing quality and safety of products are analyzed. Thus, the analysis of contemporary legal provision regulating the safety of raw milk and finished products, peculiarities the procurement of raw milk, labeling finished goods is made. The article discusses pricing problem of the enterprises of the dairy industry because of the raw milk problem and mediator problem. The author also deals with the peculiarities of the implementation of the environmental component of the economic security of the enterprises of the dairy industry and the main aspects of state regulation of milk processing enterprises.

JEL Classification: Q180 Keywords: economic security, the problems of ensuring economic security, dairy industry.

Introduction

In the market economy an enterprise as an open system is operating in a complex and uncertain dynamic environment. It requires rapid adaptation, knowledge of laws and searching the ways to survive in a market economy, taking into account factors of uncertainty and instability of the economic environment. As the technology, means and objects of labor, and workers, which are available at the company, are linked structurally and functionally into a single system, the qualitative and quantitative changes in external and internal conditions of activity predetermine serious threats to entity and development of whole enterprise. Implementation of financial and economic activity of enterprises, realization of their
competitiveness under the influence of positive and negative factors requires, first of all, the creation of appropriate conditions for the effective provision of economic security.

The purpose of the article is to identify the major problems of ensuring economic security management of the dairy industry in Ukraine. In accordance with the goals the following objectives are identified and solved:

- Activity of economic security service of enterprise of dairy industry and a list of its main objectives are offered;
- The problems of the quality and adequacy of raw milk resources, quality and safety of the finished product are investigated;
- The features of milk pricing of enterprises of dairy complex due to their economic security are researched;
- The features of the implementation of the environmental component of economic security are observed;
- The main aspects of state regulation of milk processing plants activity are observed.

Object of research is economic activity of dairy enterprises of Ukraine in conjunction with the state of their economic security.

The issue of economic security of modern enterprises are widely covered by national and foreign authors, in particular they were researched by O. Arefyeva, A. Hrunin, S. Hrunin, A. Dolzhenkov, L. Donets, A. Kozachenko, A. Ljashenko, M. Kamlyk, V. Ponomarev, S. Shkarlet and others. Theoretical and practical aspects of dairy farming and dairy production development describes in the works of Barabash, M. Ilchuk, L. Lipyich, T. Mostenskoyi, P. Sabluk, M. Parhomtsya and others. Estimating the contribution of scientists, whose works have been studied, we note that the problems of the dairy enterprises functioning, positive and negative trends in their development in conjunction with the issue of ensuring their economic security need more detailed research.

The theoretical basis of enterprise’s economic security

Analysis of domestic and foreign research scholars (Aryef’yeva O., Kuzenko T., 2004, Goryacheva K., 2006; Grunin O., Grunin S., 2002; Dolzhenkov O., Zhukovsky Z. H., Golovchenko A., 2007; Donets L., Vashchenko N., 2008; Kamlyk M., 2005; Kozachenko A., Ponomarev V., Ljashenko A., 2003) confirms the relevance of providing economic security, and allows on this basis to propose our own definition of «economic security» as the system of effective use of available resources and market opportunities, which includes set of measures and methods of protection from influence of possible subjective and objective threats to sustainable and progressive development of enterprises in the current and long-term period.

So, an enterprise, in which economic security is at the proper level, operates and continues to realize with high efficiency production and selling, to take into account the effect of existing threats and to prevent the occurrence of negative financial results of enterprise activity and provide protection the information that constitutes a trade secret, to maintain the loyalty of staff and do resistance to unfair competition.

Ensuring economic security of enterprise is possible if it has financial stability and independence, high liquidity of its assets, technological independence and ensuring high technical potential, high management efficiency, optimal and efficient organizational management structure of the enterprise, a high level of staff qualification and his intellectual potential, environmental safety, legal protection of all aspects of the company, etc.

Research the issue of economic security, conducted on enterprises of dairy industry, revealed a number of issues that interfere with normal operation of the business and the
industry in general. The detection of problems in proper time and detailed assessment of threats, that arise, can be considered an important aspect in ensuring economic security.

Service of enterprise’s economic security

The conducted research has revealed the first major problem to ensure the economic security of the enterprises of dairy industry: there is no full service economic security at the majority of dairy enterprises in Ukraine. Instead, the security service runs, the main features of which, at best, except for the physical protection of personnel and property businesses, partially cover the issues of personnel and information security. However, we believe that dairy businesses need to create a service of economic security that will provide comprehensive management of all its components, develop appropriate measures to ensure it.

Various authors (Goryachev K., 2006, Khavoon V., 2005, pp. 23-26) form the task list for such service in its own. In our opinion, to serve economic security the following tasks should be required:

1. Protection the legitimate rights and interests of the company and its employees;
2. Collection, analysis, evaluation of data and prediction of the environment development, including in terms of ensuring environmental component;
3. Investigation partners, customers, competitors, candidates for the job in the company;
4. Timely identification of possible sources of external threats to the company and its employees;
5. Preventing penetration of competitor economic intelligence services to enterprise, organized crime and individuals with improper intentions;
6. Counteraction technical penetration for criminal purposes;
7. Detection, prevention and suppression of possible illegal and other negative activity of employees that injure to its security;
8. Protecting the company's employees from violent attacks;
9. Ensuring the preservation of property and information constituting a trade secret of the company;
10. Obtaining the necessary information to generate the optimal management decisions on strategy and tactics of the economic activities of the company;
11. Physical and technical protection of buildings, structures, territories and vehicles;
12. Formation favorable opinion about the company of the public and business associates, that contributes to the implementation of economic activity plans and the strategic purposes;
13. Compensation for material and moral damages resulting from unlawful actions of organizations and individuals;
14. Monitoring the effectiveness of the functioning of the security system, improving its elements.

Another problem of ensuring the economic security of enterprises of the dairy industry is the issue of the adequacy and quality of milk resources. Today dairy industry stands among the leading industries of agribusiness and food market segments in Ukraine, which provides people with necessary food.

Given the peculiarities of dairy companies the problem of providing the dairy industry with high quality milk resources are among the most relevant and important. It is well known that the possibility of optimal use of existing capacities and their increasing, the introduction of new products, quality and safety of the finished product depend directly on the availability of sufficient milk resources of suitable quality. Conversely its absence causes corresponding
reduction of proposal dairy products, which belong to category of the first necessity, and as a consequence – the problems of providing food security in Ukraine.

Solving of this problem lies on the sphere of the support of farmers, controlling the number and productivity of the dairy herd. According to annual business results of the 2011 the size of dairy herd decreased by 42 thousand heads. The negative trend of reducing the number of cattle have been continuing since 1990, and the same in both rural as well as in private households (Figure 1). Regarding the structure of the number of cows by household categories, we found that the proportion of cows in the private household compared to farms have been increasing since 1990. Since 2005, the percentages are approximately 20:80 and on 10.01.2012 the percentages are 22,31 : 77,69.

Figure 1. Structure of cow herd by household categories, %
Source: Compiled by the author according to the State Statistics Committee.

According to it, the structure of milk production was formed (Fig. 2). If in 1990 the farms were producing 76% of the milk, then in 2000 – 71% of milk was produced by households in 2005 – 81.2%, and as on October 1, 2012 – 77.94%. From the early 90s of the twentieth century such redistribution of spheres of influence in the market of raw milk was determined by process of change ownership of existing enterprises, carrying out privatization, increasing the population interest for entrepreneurship, etc., and in the future is directly related to the restructuring cow herd per householder categories.
A major consequence of the reduction of the herd is the corresponding change in the structure of raw reserves, its geographical bias. This makes processing companies to deliver raw milk over long distances, increasing transportation costs. In addition, due to the length of transportation usually the deterioration in the quality of raw milk occurs because of increase of its acidity. A major feature of the dairy industry is the fact that the collection of raw milk accounted mainly for the spring – summer period, which again makes it difficult to obtain the necessary raw material of good quality, especially in autumn and winter.

An equally important aspect of the supply of raw materials is the productivity of the dairy herd. Considering the analysis of statistical data, we can state that in recent years this figure has a positive trend of slow growth. In particular, in 2009 the productivity of cows in Ukraine was 4000 kg per year, while in the EU countries – 5500 kg per year. However, in 2011 the average annual milk yield to the number of cows were already 4100 kg, that was by 3% higher than level of 2010, and is a good thing especially considering downsizing dairy herds (The official website of the State Statistics Committee of Ukraine).

Another major problem associated with a decrease in the economic security of the dairy industry and raw milk is the quality of the last one. The high quality raw milk is that meets the applicable standards for microbiological and is free of antibiotics, pesticides, plant replacements and etc. Also indicators of fat and pH, the allowable number of somatic cells, the level of bacterial contamination are taken into account. According to figures based on data of the State Statistics Committee raw milk is included to a specific class and is taken according to the current SSU (State Standard of Ukraine) 3662-97 “Whole cow milk. Requirements for procurement". In the case where raw milk does not meet certain standards, it cannot be used for production (discrepancy is identified at the stage of receiving), and the company needs to find alternative sources of raw milk of good quality. Unfortunately we do not always have the opportunity to replace substandard quality raw milk with the raw milk of good quality. Then some businesses are forced to use raw materials that do not meet the requirements by individual indicators and jeopardize the safety of the finished product. In any case enterprise functioning destabilizes and can jeopardize providing its economic security.

Ukrainian requirements for the safety of raw milk against international are much lower. Analysis of the current level of harmonization of standards in the AIC shows that in the agricultural sector only 53% of existing standards have been identified with the international standards ISO, in the food and processing industries – only 28%. Thus, only 23 of 54 existing standards are identified with the requirements of ISO. Such products of this product group do not meet international quality requirements as: milk cow drinking at the stage of procurement, cheese products, yogurt, sour cream, canned milk etc. Harmonized standards for shelf life, specifications on provision of milk, including baby food, methods of determining fat, water purity, microbiological analysis and others are absent (Barabash A., 2011). Given that today Ukraine policy is oriented towards European integration, establishing profitable trade relations, coordination of existing national standards with international plays a major role in overcoming existing technical barriers to the dairy industry.

Veterinary-sanitary standards to the production of raw milk and requirements to its packing are defined by the Law of Ukraine “About Milk and Dairy Products” of 2004 amended the law in 2010 (Law of Ukraine "On Milk and dairy products", 24.06.2004, №1870-IV). The same law to encourage improvement of the quality of milk and its compliance with Standard of Ukraine set bonuses as a percentage of the purchase price for the extra milk class – 25%, for the milk of the higher quality – 20%. Despite these measures the overwhelming proportion of raw milk are taken as the second class. The main reason for the
small number of good quality raw milk is the fact that about 80% of the production of raw milk accounts for private households. It results inability to control compliance the relevant sanitary conditions, inadequate sustentation of cows, monitoring their health state, non-compliance to the cooling produced milk, to transportation etc.

Provision problems and financial problems to purchase the necessary fodder for cattle, untimely calculation processing plants for given milk, lack of government regulation of prices and volumes of purchases can hardly be positive incentives for most agricultural enterprises and private households. Therefore, the current situation is quite clear. Equally serious problem of motivating milk producers is low purchasing prices for raw milk.

Quality and safety of product

An important aspect of the implementation of the economic activities of the enterprises of dairy industry is the quality and safety of the finished product. It is important to emphasize that the safety of products is closely related to economic security. If for some reason products are recognized as such, that does not meet the requirements for their safety a loss of trust on the part of the state and consumers, a corresponding decrease in consumption, reducing the financial results and the corresponding loss of economic security can be expected by the manufacturer.

The main laws that are the regulatory basis for regulation of safety of raw milk and food products are the laws of Ukraine "About Safety and Quality of Food Products" and "About Veterinary Medicine". Supervision of their compliance the State service sanitary – epidemiological surveillance and the State veterinary service carry out. In Ukraine there are a number of relevant state standards that are created, act and regulate at the state level the quality and safety of dairy products.

In order to save the image and consumers the enterprises check compliance of products for established standards and make appropriate labeling. Marking requires processing plants to determine information about the composition of dairy products, the presence of vegetable fats, which allows the consumer to be informed and therefore affords safe products of the required quality. Unfortunately, Ukraine has a lot of unscrupulous manufacturers who falsify dairy products, that product quality does not meet the established price on it. Furthermore, the packaging of this product contains no reliable information on the composition of products. The standards listed on it are not a guarantee of safety, and the product may contain substances harmful to the organism. Perhaps this is due to lack of proper supervision by the state, due to insufficient number of independent laboratories that need to monitor the quality and safety of raw milk and relatively dairy products of processing firms.

It is clear that the quality and safety of raw milk is the most serious factor of safety of the finished product. The speed of processing, the amount of expenses for cleaning, pasteurization, etc., depends on it. Therefore, an important aspect of providing the dairy industry with the necessary raw milk is appropriate stimulation of farmers and private households. Also in the long run it is assumed that total control over the use of non-dairy raw materials in the manufacture of traditional dairy products will increase the demand for raw milk to processing enterprises, and therefore – the purchase prices for agricultural enterprises. The first steps in this direction have already been done. In particular, in 2012 the Cabinet of Ministers of Ukraine approved the draft law "About amendments to the Law of Ukraine" About Milk and milk products" and other legislative acts to strengthen measures to campaign against falsification of dairy products. Until recently, producers of dairy products were allowed to use up to 75% vegetable oil, and now the acceptable norm of using vegetable oils is reduced by 50%, and most manufacturers are required to conduct obligatory labeling of finished products to the content of non-dairy ingredients.
The important role in creating safe products of good quality plays the provision the industry with the necessary basic tools. Today a large number of firms use only a third of production capacity. Although the issues of raw materials and demand are still considered as the main issues, the relevant problem for dairy industry in Ukraine remains to solve the problem of the physical and moral depreciation of production fixed assets. Producing at a rundown facility may affect violation of technological regimes, worsening health status, etc. Technical equipment of production determines not only the efficiency of production and quality of production, but also has a significant impact on competitiveness of enterprise and its economic security.

Recently, for small enterprises of dairy industry in Ukraine the problem of fixed assets partially is being soving by the acquisition by more powerful companies, that also brings together the efforts and resources for getting scarce raw areas and provide consumers with a wider range of products.

To ensure product quality and safety the great attention should be paid to their control. Inherent to Ukraine system of verification safety and quality of food products is focused on the end result. In particular, the individual product samples being selected by controller are subjects of analysis. If the results confirm the purity of product, the entire party will be realized. However, this approach does not guarantee complete safety and absolute quality of the product (Protasova L., 2010, pp. 229-234). In principle, other provisions of food safety that are mandatory for the EU are laid down in Directives of Council of European cooperation that are based on the principles of HACCP (Hazard Analysis and Critical Control Points). The base of system HACCP is threats assessment, which may effect on the food product during its manufacture, storage, sale and use. Among these threats can be both microorganisms and chemicals that fact is topical for our country. HACCP offers to divide the whole production process into blocks and implement a monitoring system for potential "risk" in each of these areas. Detailed analysis of "risk", qualified and responsible operations by each specialist of food enterprises and documentation all measures will minimize the probability of producing defective product to a minimum (Yakubchuk O., Miller S., Ping Y. E., Deyneko E., 2004, pp. 68-69).

According to Article 20 of the Law of Ukraine "About the safety and quality of food products" people occupied in the production or the putting food products into circulation will apply sanitary measures and good practices in production, system HACCP and / or other system of safety and quality in the production and circulation of food stuffs. The greatest benefit to the dairy industry is associated with the implementation of HACCP, – access to new retail chains and supermarkets, as today such retailers as "Metro Cash & Carry Ukraine" and "Fozzy Group" require existence of HACCP from their suppliers of dairy products. Expert discussion suggests evidence that the introduction of HACCP in the dairy industry in Ukraine could double sales in this market segment (The 63rd Report of the International Finance Corporation “The Introduction of Food Safety Management at the Enterprises of Ukraine. Analysis of costs and benefits”, 2011). Unfortunately today there is no official statistics on the application of HACCP in milk processing plants. We have data on 4 June 2009, according to the Law of Ukraine “About the National Target Program on Monitoring of residues of veterinary drugs and contaminants in alive animals, in animal products and feed, as well as in foods – subject to veterinary control, for 2010-2015” in Ukraine HACCP system is implemented only at 37 milk processing plants.

Pricing problems of dairy enterprises

In the industrial and economic activities in the sphere of providing economic security of enterprise the specifics of pricing for raw milk and dairy products of enterprises plays a
major role. Basing on the main objective of business activity, every business is trying to establish a price that allows it to get as much profit as it can. It is one of the main indicators of providing economic security. Therefore, the establishment of adequate prices for finished products of the enterprise has a significant impact on it to ensure its economic security.

High financial results can also be achieved by reducing production costs. For the enterprises of dairy industry the most significant item of expenditure is the cost of raw milk. Therefore, the final price of products, expected financial results and providing economic security in general to a large extent depend on the purchase prices for raw milk.

Provision prices (the price of raw milk), as we already mentioned above, are formed on compliance with all relevant regulations of the defined parameters according to current state standards of Ukraine and the Law of Ukraine "About milk and dairy products". Since the greater quantity of milk is produced on private households, it is the difficult for processing enterprises to form long-term agreement on the terms of quality of raw milk in required quantities and at the required time frame. That is why most people are forced to sell raw milk to wholesale intermediaries. It causes instability of the market, lowering prices for raw milk and adversely effects on the economic security of milk producers, causing corresponding decrease of private households’ interest for further operation. In addition, the price of raw milk to processing plants grows at 15-20%.

Generally mediators exert a major influence on the formation as wholesale, retail and market prices for products of dairy enterprises. Although mediators are the structures that have established themselves among trade organizations through problem solving of transportation products, its timely receipt, adjustment amount, constant updating and simplifying the range of cash payments, the use of their services increases the wholesale price on 25-60%. Retail organizations buy products which went through two or more intermediaries, so through two or more price increase, and in addition add their own trading margin. The end result is unreasonably inflated retail price for conventional view of the buyer. Actual retail prices do not meet the consumer's solvency, leading to a decline in volume of consumption products. Figure 3 presents the consumption of dairy products by population of Ukraine for 1990 – 2011.

The figure shows a gradual decline in consumption products of the milk enterprises. We believe that this trend is due to increase of prices for dairy products and low solvency of the population.
Figure 3. Consumption of dairy products by population of Ukraine per person, kg/year
Source: compiled by the author according to the State Statistics Committee, in terms of milk.

Therefore there is a need to improve the mechanism of pricing milk processing plants. It is important to establish regulation the number of intermediaries and extra charge offered by them, to determine the optimal pricing algorithm for dairy products or create corresponding state investment intermediaries.

The problem of environmental safety

Providing economic security of the food business is impossible without ensuring its environmental component. To do this, the company should make efforts to minimize loss in the form of administrative sanctions for pollution of environment and avoid loss of product markets in countries with more stringent environmental legislation.

The reality of the economic activities of domestic food companies indicates that very small portion of enterprises is provided with its own set of facilities for run-off water treatment. As a result recent one falls in the sewer network. Therefore the question of non-polluting production for dairy business is becoming the most serious aspect of environmental safety. On the one hand the introduction of modern recycling technology allows us to step up environmental protection, on the other – to propose consumer a completely new range of dairy products. Products from recycled materials do not only inferior in nutritional value products with whole milk, but also can be used for people who for whatever reason cannot consume traditional dairy products.

An essential aspect of providing environmental safety for dairy enterprises the requirements to packaging for raw milk and dairy products have. According to the Law of Ukraine “About milk and dairy products” tare and packaging should be constructed of materials approved for use. Today a significant number of enterprises of the dairy industry are focused on the use of ecological packaging that is not only safe for the environment and can be used repeatedly, but also adds value to the company in the eyes of consumers as a manufacturer that cares about the health of its consumers and the future of state.

State regulation activities of enterprises of the dairy industry

The modern market of milk and milk products in developed countries is not spontaneous; it is regulated by the state. Unified market for milk and dairy products began operation in 1968. Nowadays, more than a third of EU farmers are engaged in the production of milk and dairy products. In this case the cooperatives supply more than 80% of milk (in the Scandinavian countries – 95%) to dairy enterprises. Under the influence of structural and technological factors dairy cooperatives have become large vertically integrated associations and therefore may affect the prices paid for raw milk, as the members are co-owners of the cooperative production, processing and trade. Regulation functioning of the market of milk and milk products is one of the most important areas of the Unitary Agricultural Policy, and covers the following products: milk, cream (fresh, concentrated, condensed ), butter , hard and soft cheeses, lactose and lactose syrup, fodder – products based on milk (Sabluk P., Karitch D., Kovalenko Y. U., 2002).

Ukrainian dairy businesses operate more independently: however, as in other countries, their activities are controlled by the relevant laws, standards which were mentioned above. They regulate the compliance of finished goods, raw materials for its production requirements set by the state.

On the other hand an important element of the policy is to support producer through possible grants for the production, regulation of market pricing, cost recovery, providing
subsidies and guarantees. In Ukraine, according to the current Tax Code adopted in 2011, the amount of VAT paid by processing enterprises for sales of milk and dairy products, are fully directed to a special fund from which dairy businesses get appropriate subsidies. Experts of the Ukrainian Agrarian Confederation identified the mechanism of accumulation receipts from milk processing plants to a special fund budget as inappropriate. According to their opinion, in addition to reducing the amount of support, great difficulties in the distribution and possible abuse at all levels, the proposed mechanism will contribute to the extensive development of dairy farming and lead to addiction support producers of milk resources from the budget process (Barabash A., 2011).

Therefore, the future of the dairy industry of Ukraine should be formed on a combination of a self-regulating market mechanism and system of state control. On the one hand, the state contributes to the necessary conditions for agricultural enterprises and private households, milk processing enterprises. This refers to the financial support, creating the necessary market infrastructure, implementation of resource control production, control pricing of products of the enterprises of the dairy industry, the formation of effective demand due to the achievement of sustainable economic development. On the other hand milk processing enterprises should focus on providing the quality and safety of products, work on regular updated product range, focus on the use of new technological and technical solutions, including resource-saving and recycling, etc.

Conclusions

The need to provide economic security is determined by the needs of the enterprise to ensure stable operation, dynamic development and implementation of the objectives of the activity.

For enterprises of the dairy industry in Ukraine it is necessary to solve the problem of quality and sufficiency of raw milk resources, and therefore the quality and safety of products, pricing problems, providing environmental security, formation economic security services, harmonization of government regulation and enterprises operation in the market and so on. Further research the issues of development of the dairy market in Ukraine, including the problem of entry of domestic enterprises in the international market, deserve.

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