

# INFLUENCE OF EXTERNAL ENVIRONMENT ON COMPETITIVE ABILITY OF DAIRY ENTERPRISES

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## **Introduction**

Characteristics of the enterprise's position in the product market - is the first stage and integral part of the research of its competitive ability. The very important moment in formation of competitive ability is studying and analysis of market competitive environment of the enterprise. For that Doil (1999) notes the following: «Organizations which do not pay proper attention to the markets, that are changing permanently, and do not follow market situation, are doomed “to be stranded...”. Market of milk and dairy products is one of the markets, which will mostly feel changes in the sectoral situation, and insufficient attention to which will negatively be reflected on the competitive ability of the enterprise of this market. The Ukrainian dairy market, as Odessa one, particularly, is more and more short of qualitative raw materials, which is connected with negative tendencies of decrease of milk livestock and small-scale structure of milk production. However, milk and dairy products are the important segment of production market of the countryside, and demand for these products is always present.

## **Review of Literature**

The issue of research of external environment and problems of the sector on the activity of milk processing enterprises, its competitive ability, are reported in the works of P.S. Berezivskyy, V.N. Zymovets, P.T. Sabluk, N.V. Sulyma, O.V. Morgun, V.A. Radchenko, N.V. Ovsiyenko, O.O. Skibin, S.V. Vasylchak and others. This problem is very important for production security of Ukraine, that is why needs further studying.

The whole set of features of formation of competitive ability of dairy enterprises due to its character can be divided in two groups: environmental – connected with specifics of the environment of milk processing sub-complex of agricultural sector of economy, where these enterprises are functioned, and level-sensitive – determined by the specifics of the level, on which competitive ability is considered (Cherevko, 2011).

Market transformation of economic relations influenced negatively on the structure of dairy sub-complex both in Ukraine, and in its separate regions (Olefir, 2012).

Production of dairy products and ice-cream in 2008 decreased by 7 % as compared with 2007. It can not be affirmed that it has happened at the expense of decrease of external demand and import expansion, because during this period export increased from 180 thousand tons to 195 thousand tons, and import, on the contrary, decreased from 52 thousand tons to 45 thousand tons. The most probable cause of decrease in dairy products production is shortage of milk raw materials, which is difficult to compensate by import. Annual decrease of milk production has been continuing uninterruptedly since 2005. As the result of this, in 2006 production of dairy products decreased in 6 %, in 2008 – in 7 %, in 2009 – in 10 %, in 2010 – in 2 %, and in 2011 p. – in 7 %.

The main cause of decrease in production of dairy products in 2011 was shortage of milk raw materials. Milk production in 2011 comprises 11093 thousand tons, when in 2010 p. – 11249 thousand tons. At the same time, demand for dairy products didn't decrease. For 2011, index of active volume of retail turnover for milk and dairy products comprised 103 %, for rennet, melted and cottage cheese – 113 %, for dairy butter – 112 %.

The level of competitive ability of dairy enterprises basically depends on the level of competitiveness of its products, which, in turn, depends on the quality of raw materials and structure source of raw materials. Results of their research are submitted in the Table 1.

**Table 1. Dynamics of cow livestock in Ukraine and in Odessa region**

Population	Years							From 2011 to 2005, %
	2005	2006	2007	2008	2009	2010	2011	
Ukraine								
Cow livestock, thousand of head	3635	3347	3096	2859	2737	2631	2582	71
Including agricultural enterprises	866	764	679	624	605	589	584	67
Population's economies	2769	2583	2417	2235	2132	2042	1998	72
Odessa region								
Cow livestock, thousand of head	148	143	134	115	105	104	108	73
Including agricultural enterprises	33	29	24	21	18	16	15	45
Population's economies	115	114	110	94	87	88	93	81
Share of Odessa region in the whole livestock, %	4,1	4,3	4,3	4,0	3,8	4,0	4,2	X

The executed calculations certify tendencies to the decrease of cow livestock in agriculture – during the researched period it decreased in 30 %, meanwhile, its decrease has happened basically at the expense of decrease of number of agricultural enterprises twice both in Ukraine and in Odessa region. In population's economies we also observe the decrease of cow livestock. During 2005–2011 the share of Odessa region in cow livestock of Ukraine was almost unchanged at the level of 4 %. Reduction of cow livestock is accompanied with the decrease of specific weight of cow livestock in agricultural enterprises and correspondingly with increase of specific weight of cow livestock in population's economies.

Results of data analysis of the dynamics of cow productivity in Ukraine and in Odessa region allow us to make conclusion that the productivity of milk herd in the

economies of Odessa region is lower than in Ukraine in whole. Growth of the researched indicator in Odessa region happened basically at the expense of population's economies, where level of cow productivity is by 41 % higher than the level of cow productivity in the agricultural enterprises.

Analysis of statistic information certifies that decrease of cow livestock led to the imminent decrease of volume of milk production, meanwhile, specific weight of milk production by population's economies increased substantially, and for which it is rather difficult to provide control over quality of raw materials and as the result, production of not higher quality is produced from it, or processing of this milk needs additional funds, which complicates maintenance of viability and, of cause, competitive ability of enterprises.

In 2010 a total volume of milk production in Ukraine decreased by 11.14 % as compared with 2000. Commencing from 2006 we can observe a tendency to decreasing of volume of milk production, in 2010 milk production decreased by 638.4 thousand tons, or by 3.11 % as compared with 2009. For Odessa region this decrease comprised 53.7 %. Years 2000-2004 were successful for Odessa region: during this period volume of milk production increased almost by 35 %. Since 2005 milk production began decreasing and this year it was produced by 15.6 % less than in the previous 2004. Generally during the period of 2005-2010, volumes of milk production decreased by 33.4 %.

But dairy products - are strategically important products, which always in great demand in the market, that for the last years characterized by increase of fertility, culture of consumption, quality of sales and others. In order to correspond to the market expectation, dairy enterprises in the conditions of shortage of raw materials, use milk of bad quality, or resort to falsifications, replacing animal fats by vegetable ones. Such fact, undoubtedly, leads to the quality loss of finished products and actually to the deception of consumers, and, as the result, to consecutive loss of competitive advantages on the market by the enterprise-producer. In spite of negative tendencies of decrease of cow livestock and milk production, productivity of milk herd increased and for ten years, average annual milk yield from one cow increased by 68.5 %. The basic way of increasing of cow productivity is improvement of food supply, quality of feed and structure of food allowances (Odessstat, 2013).

In our opinion, a share of large-scale production in the structure of milk production now is disproportionally low. In 2010 112 mln. tons of milk were produced, including in agricultural enterprises – 2.2 mln. tons, and in population's economies – 9.9 mln. tons. Particularly in Odessa region market reforms, especially in 1990s of previous century, led to the destruction of large number of large-scale agricultural enterprises, reduction of industries of feed production and deterioration of veterinary service of livestock complexes, which influenced on the reduction of production of unboiled milk and decrease of its share, which was submitted for processing.

In spite of the fact that intensity of reduction of production volumes in 2000 years slowed down, we can not observe positive trend in the dynamics of production of unboiled milk by this category of economies. It is connected with the fact that once powerful agricultural enterprises, which were specialized in milk stock-breeding, were reluctant to reorient into crop production due to symbolic amount of grants for milk production, inaccessibility of credit resources of commercial banks, usage of palm oil by the majority of small-scale enterprises for production of separate kinds of dairy

products. The important booster for accretion of milk livestock in agricultural enterprises is high attractiveness of production of technical crops, especially those, which have energetic directivity, and also expansion of areas of crops even in that administrative regions, which traditionally are specialized in meat and milk stock-breeding.

Positive trends in the dynamics of production of unboiled milk in 2000–2005 happened due to increase of facilities in special farms. Unfortunately, quantitative improvement of situation didn't correspond to the qualitative one. In the majority of settlements of rural area there are no technical and technological preconditions for acceptance and storage of unboiled milk, as it is required by hygiene and sanitary standards and technical regulations.

World practice has proved practicability and efficiency of large-scale production, its advantages: mechanization and automation of feed and milking processes, highest level of selection work and veterinarian service, better control of products' quality, more perfect forms of products storage and other. Thus, it is reasonable to pay more attention to stimulation of just large-scale economy in the government development programs.

According to the data of State Statistics Service (Derzhkomstat, 2013; Odessastat, 2013), in 2010, the level of consumption of dairy products comprised 64,5 % from rational norm of consumption, which comprises 380 kg/year. Quantity of consumption of milk and dairy products per head is significantly decreasing due to decrease of paying capacity of the population and increase of prices of products sale. The basket of goods of Ukraine, which is approved by the Cabinet of Ministers of Ukraine, for able-bodied citizens as for unskimmed milk consists of 60 kg/year per one person, milk with small content of fat – 65 kg/year, dairy butter – 5 kg/year, hard cheese – 5 kg/year, soft cheese – 10 kg/year, cream – 5 kg/year (Zakon, 2013).

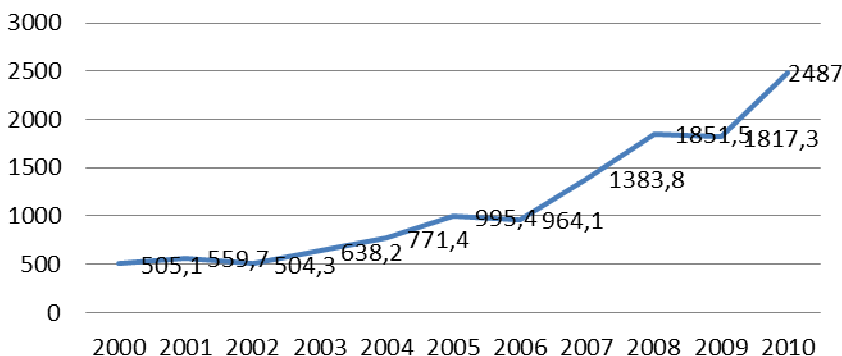
Taking into consideration the fact that destruction of large-scale agricultural enterprises led to the increase of unemployed people in the countryside, milk production in the private farms was the factor of not only creation of raw materials base for expended reproduction of own economies, but one of the motives for receipt of profits. Endeavour to maximize profit at the expense of increase of volumes of unboiled milk sale, led to its massive falsification, which at the stage of milk product vertical decreased competitive ability of dairy products.

The acute problem for milk producers is a price diktat of dairy enterprises. Artificially lowered prices deprive livestock breeders of stimuli to increase of production volumes and improving of production (Figure 1).

Prices on milk should not only provide compensation of costs on its production, but also stimulate further increase of its production, assist in rising of profitability level of livestock breeding. From the other side, prices for dairy raw materials – direct costs of dairy enterprises, but commodity producers can not significantly raise prices for production due to low purchasing power of population.

According to the above mentioned numerical material, price situation on the native market of milk and dairy products for the last time was far from stable. If until recently prices have varied basically due to seasonality of milk production (particularly, in December purchasing prices can exceed the June ones in twice), and until recently they are affected by global pricing tendencies, first of all, connected with the growth of demand on agricultural product and different aggravation of energetic

crisis - improvement in prices on forage agricultural crops (a share of breeds in costs structure of livestock breeding exceeds 70 %), fuel and lubricants and dairy products (Agristat, 2011).



**Figure 1. Dynamics of average prices of realization of milk and dairy products by agricultural enterprises**

Source: Derzhkomstat (2013)

The only way is formation of zones of raw materials purchase with the purpose of decrease of costs on transportation. The majority of plants are integrated with milk producers, but the unfavorable market leaves the question about provision with raw materials on 100 %, especially in winter, unsettled.

Decrease of production volumes of unboiled milk and deterioration of its quality caused a chain reaction of decreasing of facilities also in other sections of dairy products vertical. Production volumes of dairy enterprises, which functioned almost in each district center in pre-crisis period, became closing. Proportionality of development of regional agricultural center, particularly, dairy production sub-complex, became destroying gradually.

Information certifies about the tendency to the decreasing of production level of basic varieties of dairy products by the enterprises of Odessa region as compared with 2003. But in 2006 a level of production of the majority of dairy products raised.

So, the level of production of cheese and cultured milk foods in 2006 as compared with 2003 has risen by 85 % and 37 % correspondingly. In 2010 as compared with 2003 production of milk of different processing decreased by 44 %, dairy butter by 30.4 %, unfermentable fresh cheese – by 14.3 %, fat cheese – by 9.1 % and cultured milk foods – by 37.3 %. A tendency to decrease of production of basic kinds of dairy products is certified by significant decrease of number of dairy enterprises, particularly in Odessa region.

For the last ten years, a number of enterprises, which deal with processing of dairy products, have decreased by 66 %.

A sharp decrease took place in 2006-2008, when during 2 years, 23 dairy enterprises terminated its activity. It is connected with the fact that just in this period, notably since 2005, a sharp decrease of enterprises for production of raw materials, i.e. large livestock farms took place. Correspondingly, milk volumes, sold to dairy enterprises, decreased significantly. They should buy milk in other regions that required more expenses. Not all enterprises met such competition and were reluctant to

terminate its activity temporarily or for good.

Thereby, a situation in the milk market of Ukraine and Odessa region remains unstable. Decrease of cow livestock, production volumes of milk and dairy products, excess of consumption over production and increase in prices on dairy products lead to weakening of competitive ability of dairy enterprises. But, according to evaluations of specialists, a milk market of Ukraine has a significant potential for growth. Increase of livestock of pedigree cows and usage of innovative technologies of production of milk and dairy products, establishment of integrated formations and developed marketing activity will lead to increase in demand, decrease of prime cost and, correspondingly, increase of competitive ability of dairy enterprises.

The development of perspective directions of investment provision of the enterprises of milk processing sub-complex of Odessa region should make a start from the basic directions of development of agricultural sector and the results of retrospective analysis of investment activity of the enterprises of dairy products sub-complex of this region. Change of dominants of governmental policy in the sphere of agricultural sector and dairy products sub-complex, in particular caused by joining the WTO by Ukraine, excessive expansion of Ukrainian market by foreign producers, permanent increase of disparity of prices on the industrial production and production of agricultural sector, high level of deterioration of physical infrastructure of the enterprises of milk processing sub-complex.

The executed research showed that efficiency of work of processing enterprises, its economic stability depend on the fixed relations with producers of agricultural production, stability of raw materials base. It will lead to the necessity of improvement of economic mechanisms of regulation of these enterprises' activity. The problems of formation of mutually favorable conditions between milk producers and dairy enterprises are aggravated by incompleteness and inconsequence of institutional reforms in this sector. Motivation of such partnership remains weak. But further development of producers of raw materials and processing enterprises depend on the settlement of this problem (Gamma, 2004).

Dairy enterprises with the purpose of stabilization of raw materials base are trying to establish long-term relations with agricultural commodity producers. The system of economic relations between agricultural milk producers and dairy enterprises should be such that can regulate not only distribution of profit, but also directions of its effective development, namely a system of partner relations.

In practice, the partnership between agricultural producers and processing enterprises means organic association of interests, directed to obtaining of high final results in joint activity. In such conditions cooperation of agricultural production is developed, high-yielding technologies of milk production and processing are formed, specialization of enterprises is deepened, technical and technological maintenance of economic structures is improved, transport works are optimized, loading of production facilities of dairy enterprises and production volumes of dairy products are increased.

A producer of agricultural products, its processor and seller of provisions, act as a direct participant of product passing from the field or farm to the consumer. The cost of food products is formed in the inseparable chain "field-shop" and its price is calculated. Cost of goods is determined by the expenses on its production, processing and sale, and price for consumer – upon the influence of factors and market relations.

Cost of manufactured goods is formed in the environment of difficult economic system of logistical support of productive and financial services, from one side, and competitive struggle in the market – from another side.

In this chain “production-processing-sale” the problems of compliance with the principle of equity in distribution of economical results between participants of integrated process, which often develops into antagonisms, always occur. The first problem consists of the fact that addition to retail percentage to food products, especially energy resources, exceed in some times the increase of prices for agricultural products in the countryside for the last twenty years, the second one – that proposals for distribution of economic results between participants are not in favor of agricultural producer. Unbalanced exchange between agricultural and processing enterprises of dairy sector is caused by excessively low prices for raw materials which lead to the rapture of inter-sectoral relations and slacking back of dairy production.

### **Conclusions**

Due to the above mentioned problems of production of milk and dairy products in dairy product sub-complex of Ukraine, a tendency of consecutive intensification of vertical integration in dairy sector is clearly drawing nowadays. First of all it is characterized by the direction of investments of large dairy enterprises, especially with foreign capital, to the development of dairy livestock breeding and improvement of technologies of milk breed cows with the purpose of shortening of deficit of milk raw materials, rising of its quality level and provision of higher level of loading of productive facilities. Provision of the process of effective functioning of basic elements of milk processing industry can be done by creation of a definite milk processing vertical, to which agricultural enterprises and private population’s economies as producers of milk and milk processing enterprise with its productive infrastructure can join it on equal rights.

Thus, a vertical integration of enterprises of milk processing sub-complex will allow overcoming of antagonism of interests between agricultural and processing enterprises on mutually favorable conditions, and that the determined priorities should be presented to the agricultural producers through its leading role in the cycle of food production.

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## **INFLUENCE OF EXTERNAL ENVIRONMENT ON COMPETITIVE ABILITY OF DAIRY ENTERPRISES**

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### **Abstract**

The paper aims to prove the need for vertical integration of milk processing plants with raw milk producers. It presents the analysis' results of the environment external influence on the competitiveness of dairy enterprises. Proposed recommendations to provide the effective functioning of the main process units' dairy industry by creating a dairy's vertical, which on an equal basis could combine agricultural enterprises and individual households as producers of milk and dairy processing plants of its industrial infrastructure

**Keywords:** dairy enterprise competitiveness, integration processes, vertical integration