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CHALLENGES IN THE MILK MARKET (INVESTMENTS, DISRUPTIONS, LOGISTICS, COMPETITIVENESS, PRICES, AND POLICY)

Collective work, edited by  
Piotr Bórawski  
Andrzej Parzonko  
Ireneusz Żuchowski

## CHALLENGES IN THE MILK MARKET (INVESTMENTS, DISRUPTIONS, LOGISTICS, COMPETITIVENESS, PRICES, AND POLICY)

Wydawnictwo Ostrołęckiego  
Towarzystwa Naukowego  
im. Adama Chętnika  
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Piotr Bórawski, Andrzej Parzonko, Ireneusz Żuchowski

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**LEGAL AND ECONOMIC ASPECTS  
OF THE DEVELOPMENT OF DIARY  
COOPERATIVES IN POLAND<sup>10</sup>**

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### **14.1. Introduction**

Dairy production in the EU and in Poland is a basic branch of agricultural production (Wasilewski and Chmielewska 2006). It constitutes about a 20% share of agricultural commodity production, and a 15%

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share of consumer spending on food, a 14% share of sales and an 11% share of exports (Pietrzak 2010).

In Poland, individual farms supply milk to dairy processors. The number of suppliers and processors of milk has decreased recently. These changes show the increased concentration of processors. Moreover, the dairy product market is saturated, which forces dairy enterprises to be innovative (Chądzyński 2014).

The development of the dairy sector depends heavily on the dairy cooperatives and their financial condition. The good economic situation of these enterprises may result from a number of factors, including export opportunities for milk and dairy products. Also, the availability of large and high quality raw milk is also a key factor.

Polish dairy cooperatives are developing dynamically. The consolidation of dairy enterprises allows them to obtain greater economies of scale in processing and the sale of dairy products. Due to the increased scale of production, unit costs decrease.

Dairy cooperatives function organizationally like traditional enterprises. They are responsible for controlling the entire supply chain for dairy products. Recently, there has been a trend toward more integration of dairy cooperatives with farmers supplying raw milk.

## **14.2. Aim and methods**

The goal of the research was to learn about the legal and economic aspects of the functioning of dairy cooperatives in Poland. As part of the main objective, the following specific objectives were implemented:

- assess changes in the number of dairy cooperatives in Poland,
- learning about the economic situation of dairy cooperatives,
- assess the financial liquidity of dairy cooperatives.

The source of the information used in the work were the materials of the Institute of Agricultural and Food Economics-National Research Institute in Warsaw.

In order to present the research results, tabular, graphic and descriptive methods were used. A trend analysis was used in the interpretation.

### **14.3. Legal aspect of dairy cooperatives development**

The history of the Polish dairy cooperative goes back to the partitions and the period before the First World War (Dworniak and Pietrzak 2014). After the Second World War, dairy cooperatives were subject to national regulations. On the other hand, after integration with the EU, dairy cooperatives had to adjust the organization, production and quality to EU standards (Chmielewska 2007).

The vast majority of milk processing enterprises operate in the form of dairy cooperatives. The most important features of the cooperative as entities were set out in the Act of September 16, 1982 and in the light of the applicable law are as follows:

- is a voluntary and self-governing association with an unlimited number of members and a floating share fund (U S T AWA z dnia 16 września 1982 r.),
- conducts economic activity, as well as social and educational and other activities, guided by the needs of its members and social interest,
- dairy cooperatives cooperate with farmers and thus participate in the integration of the entire dairy sector in Poland,
- the establishment of a cooperative is conditioned by an entry in the register of cooperatives kept by district courts (U S T AWA z dnia 16 września 1982 r.),
- when making decisions, each member has one vote, regardless of the number of shares held, so the majority of people decides, not the capital majority, while the member participates in the profits of the cooperative depending on the number of shares,
- members of the cooperative are divided into founding members and other members, founders become members of the cooperative by submitting a declaration of will, others must submit a declaration. Moreover, to obtain a decision on admission, which is taken by the

competent body of the cooperative (U S T AWA z dnia 16 września 1982 r.),

- members – founders adopt and sign the statute, which should include: the name of the cooperative, seat and area of operation, purpose and object of its activity, amount of the entry fee, amount and number of shares, rights and obligations of members, rules of convening general meetings, methods of dividing the balance sheet surplus and covering losses. Their functioning depends to a large extent on the members of the cooperative (Suchoń 2013).

Despite their specific characteristics, dairy cooperatives function like other entities on the market, striving to obtain a surplus of revenues over costs, i.e. profit (Zuba and Zuba 2011). The most important features of the cooperative as entities are:

- cooperative bodies: general meeting, supervisory board, management board, removal of groups of members,
- the general meeting is the highest body of the cooperative, which is made up of all members of the cooperative, it is a legislative body deciding on key matters of the cooperative,
- the supervisory board is a body established to control and supervise the day-to-day activities of the management board and individual organizational units of the cooperative, and economic plans and programs of cooperative activities, approves the organizational structure of the cooperative (U S T AWA z dnia 16 września 1982 r.),
- the management board is a body representing the cooperative outside and managing the day-to-day activities of the cooperative, it consists of at least three members of the cooperative, including the president and his deputy, elected by the supervisory board or the general meeting, depending on the provisions of the articles of association,
- meetings of member groups take place in cooperatives, where the statute, due to the number of members, delegates the function of the general meeting to the meeting of representatives, electing and dismissing representatives at the meeting of representatives, sometimes electing a member or members of the supervisory board, performs the opinion-giving function (U S T AWA z dnia 16 września 1982 r.).



Polish dairy cooperatives are considered to be one of the most dynamically developing industries, which is related to the effectiveness of innovative activities (Zakrzewska 2016).

According to Suchoń (2013), the functioning of Polish dairy cooperatives is also subject to other regulations, such as:

- the Act of 20 April 2004 on the organization of the milk and dairy products market (Tekst jednolity Dz.U. z 2009, Nr 11, poz. 65.6), kodeks cywilny (Dz. U. Nr 16, poz. 93 ze zm. 7),
- the Act of September 15, 2000 on groups of agricultural producers and their associations (Dz.U. Nr 88, poz. 983 ze zm. 8),
- tax-related act of 12 January 1991 on local taxes and fees (Tekst jedn. Dz.U. z 2006, Nr 121, poz. 844 z ze zm.),
- the Act of February 15, 1992 on corporate income tax (Tekst jedn. Dz.U z 2000, Nr 54, poz. 654 ze zm.),
- Act of November 15, 1984 on agricultural tax (Tekst jedn. Dz.U. z 2006, Nr 36, poz. 969 ze zm.),
- or EU legislation (Rozporządzenie Rady (WE) nr 1698/2005 z 20 września 2005 r. w sprawie wsparcia rozwoju obszarów wiejskich przez Europejski Fundusz Rolny na rzecz Rozwoju Obszarów Wiejskich (Dz.U.U.E.L.05.277.1 ze zm.).

In the Polish divisibility of dairy products, organizational forms and nomenclature also changed (Nowak 2013). It is worth mentioning the National Agreement of Dairy Cooperatives established in 1991 and the change of its name to the National Association of Dairy Cooperatives, the Audit Union, which took place on September 4, 1998 ([www.mleczarstwaopolskie.pl](http://www.mleczarstwaopolskie.pl)).

#### **14.4. Economic aspects of the functioning of dairy cooperatives**

The number of dairies dealing with milk processing decreased from 177 enterprises in 2015 to 163 in 2019 (i.e. a decrease by 8%). The recorded decrease in the number of dairy enterprises results from a number of factors. One of them are mergers and acquisitions in the dairy industry (Figure 1). Smaller dairy companies are taken over by others with

more capital. There is a consolidation of dairy cooperatives, which helps to improve efficiency (Pietrzak 2007).

Another reason for the reduction in the number of dairy enterprises is the collapse of unprofitable entities. Another premise may be the general situation on the market, which is very volatile. The financial crises of 2009, the elimination of milk quotas for farmers and the Covid-19 pandemic caused temporary crises in the milk market. Supply chains in the milk market were disrupted. A financial problem arose related to difficulties in obtaining capital for the development of enterprises and difficulties in obtaining human resources for work. Covid-19 disease has created resource difficulties among dairy farm owners. In the Polish countryside, the phenomenon of the lack of hands to work can be observed more and more often. The analyzed trend was clearly decreasing.

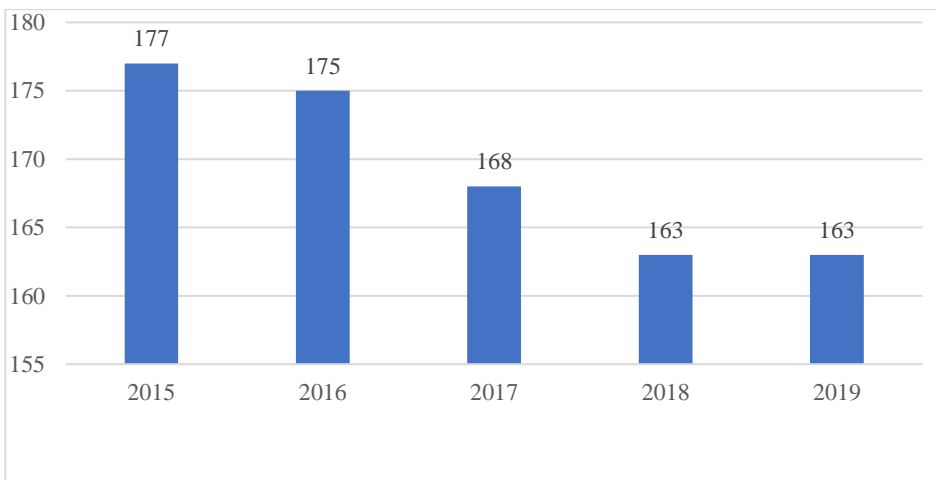


Figure 1. Number of dairy cooperatives in Poland

Source: milk market data IERiGŻ-PIB

Figure 2 shows changes in the number of people employed in dairies. In 2019, the number of people employed in dairy enterprises increased to 32,949 people compared to 2015 – 32,238 people (an increase by 2.2%). The reason for the increase in the number of people employed in dairies is the increase in the scale of production, concentration of enterprises and increased production and foreign trade in milk and dairy products. The analyzed trend can be described as an upward trend. The

demand for the labor factor in dairy enterprises is related to the demand for the enterprise's products. The development of the production scale, higher sales on the domestic, EU and global markets shapes the demand for the labor factor in dairy cooperatives. Polish dairy plants are still fragmented and located in small towns. The potential weakness of these entities is their chance because they constitute the labor market. Moreover, the location in small towns is also an opportunity to acquire well-qualified human capital who knows the issues of dairy production (Nowak 2013).

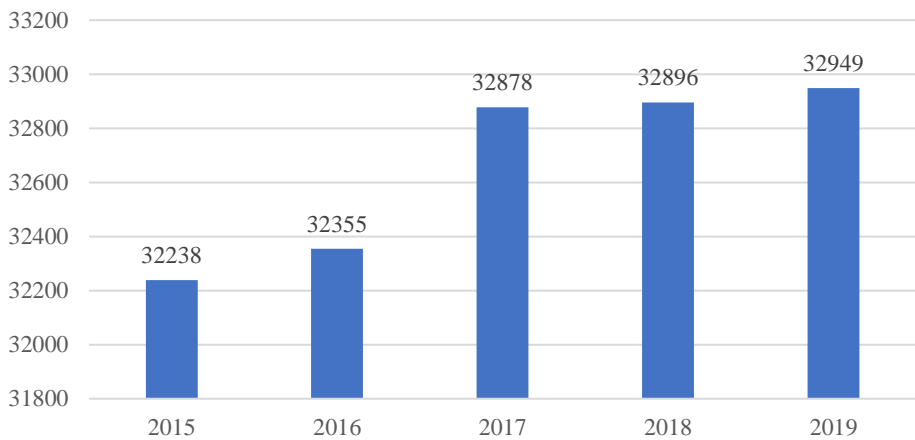


Figure 2. Employed number in dairy cooperatives

Source: milk market data IERiGŻ-PIB

The value of sales in dairy enterprises increased in 2019 (PLN 34,746 million) compared to 2015 (PLN 26,915 million). The increase in the value of sales in dairy enterprises results from the increase in turnover on the Polish milk market. In the analyzed period, the trend was clearly increasing.

Gross profit also increased in 2015-2019. However, in 2016 the value of the dairy's gross profit was PLN 666.9 million. In total, in 2019, compared to 2015, the gross profit increased by nearly 38% (Table 1).

Current financial liquidity represents the ability to meet current liabilities. It is calculated as the ratio of current assets to short-term liabilities. According to literature sources, the value of this indicator should exceed 1.2 points, ie 120%. A drop below this level indicates a problem

with meeting current liabilities. In 2015-2019, the current liquidity ratio exceeded 1.2, which indicates a good economic situation of enterprises. Moreover, asset rotation enables the use of funds involved in generating profits (Zuba and Zuba 2014).

Profitability is an important aspect of the evaluation of the functioning of the dairy industry. The data presented in Table 2 shows that the share of profitable companies remains high, which is a good indication of the assets used. The share of profitable companies in the sector's revenues will be presented even better, which is a positive sign of resource management.

The investment rate, which remains at a high level, plays an important role in the development of dairy cooperatives. This result positively proves investments carried out in dairy enterprises.

Table 1. Economic situation of dairy cooperatives

<b>Specification</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Sale value (PLN million)	26 915	27 632	33 668	33 168	34 746
Financial costs in% of revenues	0,35	0,40	0,40	0,32	0,33
Gross profit for dairies (PLN million)	451	666,9	642,4	526,4	621,1
Current liquidity ratio	1,41	1,61	1,67	1,62	1,59
Profitability ratio in% of revenues					
Gross profit	1,66	2,39	2,33	1,57	1,77
Net profit	1,31	1,95	1,89	1,28	1,36
Accumulation of capital	3,57	4,14	3,72	3,23	3,27
Gross margin	4,27	4,97	4,55	3,84	4,01
Share of profitable companies (%)					
In the total number of companies	70,6	82,9	74,4	68,7	68,1
In the revenues of the sector	84,5	94,2	86,9	85,5	90,8
Investing rate	1,35	1,40	1,67	1,35	1,45
Share of direct exports in sales value (%)	15,2	15,7	16,6	16,7	18,4
The share of dairy in the sales value of the food industry	12,3	12,1	12,9	12,6	12,3

Source: milk market data IERiGŻ-PIB

The export of milk and dairy products determines the development of enterprises. It should be noted that after the accession to the EU, there was an increase in exports and imports of dairy products produced in

Polish dairy cooperatives. This result positively proves that Polish dairy companies took advantage of the benefits appearing on the common market.

The share of dairy in the sales value of the food industry remains satisfactorily above 12%.

## **14.5. Conclusions**

Over the last decade, there has been a decrease in the number of dairy enterprises, which is evidence of their consolidation and improved efficiency. Small dairy companies are taken over by larger ones. Such activities are the result of increasing the scale of milk processing, implemented investments and closer cooperation between enterprises and farmers.

The economic situation of dairy enterprises significantly improved in 2015-2019 in terms of sales value and gross profit. In 2015-2019, the sales value increased by 22.5%, and the gross profit increased by 38%. It can therefore be concluded that the integration with the EU and the increase in sales and exports contributed to the improvement of the competitiveness of the dairy sector.

Dairy cooperatives are characterized by correct liquidity ratios, which indicates their ability to settle current liabilities. In the analyzed period, the current liquidity ratios were at a high level. Such a situation could be the result of shaping proper relations between current assets and short-term liabilities.

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