Possible Ways of Market Coordination and Integration in the Hungarian Dairy Sector

Gábor G. Szabó and Péter Popovics

Abstract

The dairy sector is one of the most critical sectors in Hungarian agriculture, where independent, privately owned farm organisations cannot countervail the market power of their business partners (processors). In theory, cooperatives and producers’ groups are able to strengthen the position of farmers during price negotiations. The main aim of our paper is to show theoretical and practical possibilities for establishing private (market) coordinating organisations in the Hungarian dairy sector. We summarise the different coordination structures using a SWOT analysis, for which we assumed two theoretical situations: first, when the coordination is initiated by the processor and, second, when it is initiated by farmers. At the end of our paper, we present the successful case of the Hungarian Alföldi Tej Kft. (Alföldi Milk Sales and Supply Ltd.) which is a good example of vertical integration in the dairy chain, based on the horizontal coordination of farmers as initiators.

Key words: Dairy sector, contractual relations, SWOT analysis, governance structure, vertical co-ordination, producers’ group, co-operation.
Introduction: background, motivation, aims and methods

Just before Hungary’s EU accession (2004), the dairy sector was one of the most critical sectors in Hungarian agriculture, and this is why we chose it for our empirical analysis.

Results of our price transmission analysis (Popovics, 2007a, 2007b, 2008) as well as our previous study on contractual relations in the Hungarian dairy sector (Szabó and Bárdos, 2005a, 2005b, 2006), clearly show that only an increase in input prices will increase the prices in the production-processing stage. Farmers cannot enforce their interests separately and act against the concentrated processing industry. High investment costs, expensive functional machinery, the long production cycle from the time of investment, the continuous nature of production and the fact that dairy products are perishable are all significant risk factors and worsen the vulnerable situation of farmers.

Based on the above listed characteristics, we formulated the starting point of our analysis: independent privately owned farm organisations cannot countervail the market power of their business partners (processors). Thus, the main aim of our paper is to show theoretical and practical possibilities for establishing private (market) coordinating organisations in the Hungarian dairy sector.

Our study focuses on the producers-processor(s) relationship, and it must be kept in mind that it is the retailers who are the main players in the field. Nevertheless, despite the strong role of retailers in the sector, in the face of the new trend of exporting larger quantities of Hungarian milk abroad, we think that market strength and the countervailing power of dairy producers are indispensable for a stable and well-coordinated dairy sector.

We used New Institutional Economics, and especially Transaction Cost Economics, as a theoretical background and carried out a literature review on coordinating matters and bargaining power issues.

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The structure of the paper is organised as follows: after the introduction, the second section deals with imperfections in the coordination mechanisms of the Hungarian dairy sector (mentioning results of our previous analyses on price transmission, as well as on contractual relations between processors and producers). The third section contains a SWOT analysis of theoretical possibilities for establishing private (market) coordinating organisations initiated by both the producers and the processors. Section four presents a brief case study on the successful Hungarian producers’ group, the Alföldi Milk Sales and Supply, Ltd. which is a good example of vertical integration based on the horizontal coordination of farmers as initiators. At the end of our paper, we draw conclusions and also outline several ideas for future research.

Following Hungary’s EU accession, the Hungarian dairy sector underwent reforms which resulted in a steep fall in domestic dairy prices and prompted the bankruptcy of a number of producers (Szabó, 2008).

**Imperfections in the coordination mechanisms and the vulnerability of producers in the Hungarian dairy sector**

The issues of profitability and the distribution of profits within the sector are of great importance. Our analysis showed that producers within the sector are in a vulnerable situation; they sell milk at nearly the unit cost. Contrarily, the retail price of milk in retail shops is more than double the farm price. This contradiction drove us to compare the prices in the different production stages. To analyse the imbalance in the sector, we have conducted a price transmission analysis for the entire sector, which deals with the rate of transmission of price increases and decreases between the specific stages (Popovics, 2007a, 2007b, 2008).

We would like to emphasize the following results that concern the functioning of the sector. The results obviously show that the price determination process moves upstream in the production-processing stage. Consequently, it seems that the transmission of values is based on the value added, by summing up the production and processing costs. Thus, the value is determined by production rather than by the market. However, the prices of the retail stage are determined in the consumer market (Mészáros and Popovics, 2004; Popovics and Tóth, 2006).

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2 Due to space limitations, we do not go into details about the Hungarian milk market. A description of the Hungarian dairy sector in English and further references can be found e.g. in Popovics and Tóth, 2005; Popovics, 2007, 2008; Szabó and Bárdos, 2005a, 2006).
In addition, fragmenting the marketing sector for the analysis seems necessary: the characteristics of the production-processing stages are absolutely different from those of the retail stage. This finding shows that analysing only the production-consumer price relations would be insufficient.

Our analysis (Popovics, 2007a, 2007b, 2008) proved that two parallel effects of different directions prevail in the formation of the market price. One is the upward price mechanism, when the change of raw milk prices induces price changes in the processing and retailing stages. However, in the oligopolistic market there is a downward price mechanism as well.

The reason for this development is the effort of the commercial sector that forces processors and farmers into a price taker position. Moreover, since milk is a perishable product, there is no way to retain or to stock it. Our earlier studies (e.g. Popovics and Tóth, 2005) revealed that producers are in vulnerable positions in the chain; they can only sell milk near the cost price. Therefore, the essential problem within the dairy sector is the issue of profitability and its distribution within the chain. In such circumstances, only large-scale enterprises can survive and small producers go bankrupt. Such changes in the farm structure can have serious social consequences. Many thousands might lose their livelihoods by the transformation taking place in the Hungarian dairy sector.

The crisis of the Hungarian dairy sector can also be traced back to the imperfections of the coordination mechanisms. One reason is the functional disorder of the national coordination mechanism (necessary interventions by the government), the other is the imperfect market (private) coordination procedures, e.g. the lack of cooperatives, producers’ groups (Szabó and Bárdos, 2005a, 2005b, 2006). The latter example has a historical background: Hungarian producers are unwilling to join forces and establish effective co-operatives, due to their experiences under centrally planned (socialist) economy. However, if farmers integrated into larger organisations, they could reduce the transaction costs per unit and thereby improve their profitability position, as European (e.g. Danish, Dutch) and North American examples show. (Szabó, 2002; Szabó and Bárdos, 2006).

The development of countervailing power, even if only regionally, through the disposal of the milk collected by co-operatives and other producer-owned organisations can get results such as strengthening market competition (e.g. ‘radiation effect’ on prices).

Coordination mechanisms improve and strengthen the bargaining power of producers by allowing for higher selling prices and by eliminating price fluctuations. Furthermore, they can have other positive effects concerning not only the industry, but society as a whole, such as benefits from stabilized prices and supply or cheaper food prices via more effective organisation (Szabó, 1999). A higher degree of co-operation among producers is important as this would lead to
better coordination of the entire chain and could enhance (consumer) welfare. Regarding the whole society, the effect of developing and strengthening trust and social capital among producers by the help of cooperation has primary importance as well.

In order to research these problems, Szabó and Bárdos (2005a, 2005b, 2006) carried out a mail-in survey among milk producers in the second quarter of 2005. Seven hypotheses were grouped into three sections: ones related to governance structure, to contract features and to the bargaining power-cooperation field. This empirical research led Szabó and Bárdos (2005a, 2005b, 2006) to accept the hypothesis that a “significant and positive relationship can be found between the quantity of sold milk and bargaining power”. Accordingly, producers’ organisations (e.g., producers’ groups, co-operatives) can be solutions for increasing bargaining power in a number of cases, at least as marketing tools.

As a main body of our study, we summarize the strengths, weaknesses, opportunities and threats of the different coordination structures in the frame of a SWOT analysis, assuming two theoretical situations: one is when the coordination is initiated by the processor and the other when it is established by the farmer.

**Possibilities for establishing private (market) coordinating organisations in the Hungarian dairy sector**

*Different means of private (market) coordination*

Due to limitations in human resources (e.g. skills and motivation to start and run a private business) and the shortage of financial and social capital, the establishment of privately initiated organisations was and still is slow and difficult. Although the vertical integration is maintained by the possibilities of mutually achievable benefits, market participants ascribe more importance to specific aspects than to others, depending on their own situation. The participants at different levels of the chain (producers, processors, retailers) approach the economic benefits in various ways; therefore, in today’s increasingly competitive market conditions, which work against benefits of a mutual nature, the participants may find that they are forced to act more like competitors than partners.

To maintain their competitiveness in the enlarged European market, the individual producers have to exploit the opportunities offered by their integration

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3 If the processor is the initiator of the coordination, we talk about downstream coordination; if the farmer organisation initiates the integration (e.g. Alföldi Milk Sales and Supply Ltd.) it is called upstream coordination.
into that market. Depending on their financial situation, they must choose between two possibilities:

**Coordination initiated by the processor**

This is the simplest way to join an already established organisation at a higher level of the chain. The expected benefits to producers should they choose this option are shown in Figure 1.

**Figure 1: Possible benefits for producers originating from processor-initiated vertical integration**

1. Market stability
2. Price stability (but not price max.)
3. Pre-financing
4. Technological improvement
5. Long term stability, continuous subsistence

Source: Popovics, 2007b:746

Here, the processors act as integrators and, although the nature of the production system would require them and the farmers to mutually depend on each other, because of the different balances of market forces, their relationships remain imbalanced. The essential interest of the integrators is to continuously decrease the significant raw material costs, which often add up to some 60-65% of the total costs. Thus, the behaviour of the integrators complicates the farmers’ position. In such a relationship, the bargaining power and interest enforcement possibilities of farmers stay weak.

The SWOT analysis of the coordination structure established by the processor (as initiator) from the farmers’ point of view can be seen in Table 1.
Table 1: SWOT analysis of the coordination structure established by the processor

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>• decreasing transaction costs;</td>
<td>• the different market power causes imbalanced relationship between the</td>
</tr>
<tr>
<td>• cost effectiveness of the production stage can be enhanced;</td>
<td>integrator and the farmers;</td>
</tr>
<tr>
<td>• more accessible, more secure market through long term contracts;</td>
<td>• the integrator is interested in cost cuts (e.g., raw materials, pre-</td>
</tr>
<tr>
<td>• more-or-less-balanced prices guaranteed in contracts;</td>
<td>financing current assets)</td>
</tr>
<tr>
<td>• the processor takes part in ensuring the current assets of farmers</td>
<td>• price-asymmetry;</td>
</tr>
<tr>
<td>through pre-financing</td>
<td>• the integrator might arbitrary change the contract;</td>
</tr>
<tr>
<td>• long term stability, permanent subsistence;</td>
<td>• bargaining power and the interest enforcement of farmers remain weak.</td>
</tr>
<tr>
<td>• bad quality products are filtered out by the system;</td>
<td></td>
</tr>
<tr>
<td>• transportation is organised and financed by the integrator.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
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<tbody>
<tr>
<td>• easier technological and product development;</td>
<td>• milk is a perishable product, that leads to opportunist behaviour of</td>
</tr>
<tr>
<td>• better flow of information;</td>
<td>the contracting partner;</td>
</tr>
<tr>
<td>• food safety is ensured via central control and monitoring.</td>
<td>• hold-up (relationship) problem based on the vulnerability of</td>
</tr>
<tr>
<td></td>
<td>farmers because of functional investments.</td>
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</table>


It is very important to emphasize hold-up problems in the case in which coordination is offered and directed by the processor. The hold-up problem, probably the best known example of an ex post problem/cost in the agricultural sector, “… arises when one party in contractual relationship seeks to exploit the other party’s vulnerability due to relationship-specific assets” (Royer 1999, p. 49). The hold-up problem is significant in the dairy and fruit-vegetable sectors, and explains the existence of the high percentage of co-operatives in these industries (Stuatz, 1984;
van Bekkum and van Dijk, 1997; Kyriakopoulos, 2000). The members of a marketing co-operative are not likely to fear that, after investing into relationship-specific assets, the other party (e.g. the processor or wholesaler) will change its mind and force them to accept lower prices for their products or, in the case the co-operative refuses, then terminate their contract. (Szabó, 2006)

Coordination initiated by the producers
To avoid the disadvantages mentioned above and utilizing the power of self-organization, farmers would establish so-called promotion-type, facilitating (e.g. marketing) co-operatives, in order to create a countervailing power against monopolistic commercial and industrial corporations. In this study, we use the basic USDA co-operative concept, which reflects three basic criteria: "A cooperative is a user-owned and user-controlled business that distributes benefits on the basis of use" (Barton, 1989: 1). According to this definition, three main relationships exist between the member and the marketing co-operative: the product, the capital and the democratic managing-control line. The co-operative does not produce the raw material.

In theory and according to Western European (e.g., Dutch, Danish) and US practical experiences, one of the main important private institutions which can strengthen producers and help to co-ordinate (agricultural) chains is the co-operative form. Agricultural co-operatives used to be considered as the classical form of co-ordination of different kinds of and independent farmers. Co-ops were founded through a voluntary base (Meulenberg, 2000) in order to protect members against the large commercial and/or industrial companies which are often in a monopolistic or oligopolistic position. They are very efficient marketing tools in a number of sectors, such as the fruit-vegetable and dairy branches.

Dairy co-operatives in Western Europe are specialised to process and sell the milk and milk products of their members. The most important types are the milk collecting, bargaining and marketing co-operatives. They use long, medium and short term contracts to secure the raw material for themselves and to be able to govern the entire marketing chain. The co-operative, in the modern sense, is a hybrid formula, because apart from the common property, the members sign a special “contract”: the statute or bylaw, which are the formal legal guarantees that the co-operative will never act against the members (hold-up problems usually are not as significant as in the case of a processor initiated coordination structure), and on the other hand, that members will enjoy their advantages and fulfil their duties.

The recent co-operative literature (see Szabó, 2006 for a review) emphasizes the following potential incentives for the establishment of co-operatives as a form of vertical integration on the basis of Transaction Cost Economics considerations. First, traditionally, co-operatives can provide access and secure markets for the
long term, therefore providing protection for independent farmers against large commercial and/or industrial companies. They can also carry out services otherwise not available, or only available at very high costs. Second, co-operatives build up countervailing power and, above a certain economics of scale, they act as a competitive yardstick for non-co-operative, conventional firms and the entire sector. This way, they wield greater influence on the market and prices. Third, co-operatives can increase technological and market efficiency in some cases and carry out activities with a higher added value. Fourth, co-operatives can decrease and internalize transaction (information) costs, with a better flow of information on consumer demand - closer proximity of the consumer to the farmer and with a unified decision role between two or more levels of the marketing channel. The cooperative can also lower both economic and technological uncertainties. Finally, co-operatives can increase the income of their members overall by lowering transaction and production costs, as well as by reimbursing the surplus the members made at another level of the marketing channel.

In addition to economic aims, there are several non-economic reasons (Szabó, 2006), which can also be important for the successful development of co-operatives (Hakelius, 1996). First, co-operatives used to be considered as organised trust, a fact which can determine the success or failure of a certain co-operative: "Trust (between the member and co-operative) is a major co-operative advantage" (Spear, 1999). Second, the social and informal network of members or potential members is also relevant as a determining factor in decreasing transaction costs and in the process of establishing and the running of the activity of a co-operative. Better knowledge and confidence (Røkholt, 1999) among members is vital to how co-operatives can become highly efficient in terms of the management of human relations. Stryjan (1989) deals with organisational consequences of different membership and ownership issues in his seminal book, which also emphasises the human or “soft” side of organising activities and, thereby, organisations.

The co-operatives discussed previously are the first step towards structural improvement. The primary goal is to ensure their raw material in the market by obtaining better bargaining power through increased product volume (by fighting for the highest possible price), and to increase their market share.

A SWOT analysis of the coordination structure by the farmer (as initiator) from the farmers’ point of view can be seen in Table 2.
### Table 2: SWOT analysis of the coordination structure established by the farmer

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• decreasing transaction costs;</td>
<td>• inexperienced management;</td>
</tr>
<tr>
<td>• cost effectiveness of the production process can be enhanced;</td>
<td>• inexperienced independent marketing activity;</td>
</tr>
<tr>
<td>• lower technological and market risks;</td>
<td>• members often have to cope with shortage of capital, therefore the</td>
</tr>
<tr>
<td>• more influence on the market and on prices;</td>
<td>investment structure is not optimal;</td>
</tr>
<tr>
<td>• cost savings through the shortened flow of information;</td>
<td>• the current assets of the farmers have to be financed under their own</td>
</tr>
<tr>
<td>• rearranging some of the profit from a certain level of the marketing</td>
<td>capital;</td>
</tr>
<tr>
<td>chain to farmers;</td>
<td>• members often cannot recognise that investments serve their interest –</td>
</tr>
<tr>
<td>• better interest enforcement, better bargaining position;</td>
<td>internal conflicts (horizon problem);</td>
</tr>
<tr>
<td></td>
<td>• contact with the co-operative, transparency of its operation and</td>
</tr>
<tr>
<td></td>
<td>practicing their managing and controlling role might cause problems</td>
</tr>
<tr>
<td></td>
<td>for members;</td>
</tr>
<tr>
<td></td>
<td>• ensuring food safety, quality control</td>
</tr>
<tr>
<td></td>
<td>• weak logistics</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• accessing and retaining new markets;</td>
<td>• shortage of capital;</td>
</tr>
<tr>
<td>• high value added activities.</td>
<td>• technological and product developments are not materialised;</td>
</tr>
<tr>
<td></td>
<td>• some members might gain benefits without paying-in (“free rider”</td>
</tr>
<tr>
<td></td>
<td>symptom);</td>
</tr>
<tr>
<td></td>
<td>• the co-operative is sometimes unable to control the quality and quantity</td>
</tr>
<tr>
<td></td>
<td>of the supplied product;</td>
</tr>
<tr>
<td></td>
<td>• milk is a perishable product.</td>
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Although the hold-up problems are not usually as significant as those found in the processor-initiated model, agency problems might still occur in co-operatives (Szabó, 2006; Fertő and Szabó, 2002). As a very closely related issue to TCE and
the (democratic) decision-making process, there are a number of potential problems with the traditional (countervailing power) co-operative model (van Bekkum and van Dijk, 1997; Nilsson, 1998b) according to the agency theory (Nilsson, 1998a; Cook, 1995; Vitaliano, 1983). Based on the incomplete contract assumption, the agency theory concentrates on incentive and measurement problems, featuring the individual, and does not focus on the transaction itself, which is the basic unit in TCE (Mahoney, 1992; Royer, 1999). The basic source of the agency problems of complex organisations is the separation of ownership and control. In the case of co-ops, the separation of the management (agent) and the owner-members (principals) can lead to new incentives; therefore, managers sometimes carry out business according to their objectives at the expense of the owners (Royer, 1999).

The most important agency problems can be divided into two main groups (van Bekkum, 2001): investment related and decision-making process agency problems. In the first group, one can find common property problems, including external and internal free rider problems, and horizon and portfolio problems, which are connected to the members’ interest in investing in the co-operative. The decision-making process agency costs are related to monitoring and following up the management activities, as well as to the influence cost acquiring if there are different groups with different interests in the co-op, and finally linked to decision problem of the management caused by large and heterogeneous membership with different priorities and opinion.

Cook (1995) employs a co-operative life-cycle model consisting of five stages. In stage three, he defines five problems. The five inherent organisational problems of co-operatives are the following: free rider, horizon problem, portfolio, control and influence cost problems.

Analysing the statements defined in both SWOT analyses, we find that depending on the initiator of the coordination, there are significant differences between the strengths, weaknesses, opportunities and threats. There are common points, since transaction costs decrease and production is more cost effective in both cases. However, some factors occur as a strength in one system and as a weakness in the other, e.g. quality. We cannot decide which organisation is more beneficial, since the factors listed might include many subjective factors that make the judgement more difficult. Furthermore, the development, fulfilment and emphasis of the specific points might cause significant differences even for two similar organisations. However, we can claim that in any organisation the key points of the successful coordination are financial power, quality consciousness and professional management; and these factors are included as strengths in the case of processor-initiated coordination.
We can only hope that the above types of co-operations would spread in Hungary. However, one thing is sure: Hungarian farmers have a lot to do to become real competitors to the EU’s farmers, as their situation is made even more difficult by the fact that they also have to compete in the national market with foreign multinational companies and retail chains. The Alföldi Milk Sales and Supply Ltd. has stepped onto this road. Their story shows how theory is put into practice.

We now present a successful organisation, the Alföldi Milk Sales and Supply, Ltd., which is a good example of vertical integration based on the horizontal coordination of farmers as initiators.

A Case study of Alföldi Milk Sales and Supply Ltd.

The funding and history of the Alföldi Milk Sales and Supply Ltd.

The Alföldi Milk Sales and Supply Ltd. is a special type of cooperation operating as a producers’ group in the form of a business enterprise in Hungary. It is a self-organised group of farmers, whose members cooperate not for production but for selling purposes, in order to create a countervailing power against monopolistic commercial and processing players in the chain, and to ensure benefits for the members. The Ltd. had 153 owner-members, as well as 427 employees at the end of 2007. Only producers can be members; if the members sell their cows, their memberships are terminated automatically. The highest authority is the general assembly, which is usually gathered at least 4 times a year. Votes are distributed according to shares capital, so the traditional co-operative principle: 1 member – 1 vote does not apply in their case. However, the company can gain similar advantages (secured market, higher milk price, less vulnerability due to hold-up problems) for their members that co-ops use to offer to their members.

The process, which ended in the final (official) governmental recognition of the successful producers’ group in April 2005, started on 30 April 2003, when 23 big cattle farms, most from Hajdú-Bihar County, founded the firm. The objective was to ensure a profit higher than the Hungarian average, by supplementing their income with a 6% government subsidy. Already in the first year, this amount reached 30 million HUF for the milk purchased by the Friesland Hungaria Joint-stock Company, and the company’s turnover reached 516 million HUF.

The owner-members of the organisation have 300 cows per farm on average, i.e. most members of the cooperation are large-scale farmers. However, there has not been and there is no minimum limit for milk delivery and small-scale farmers are also welcomed. Already in 2004, the company had serious price negotiations, and was selling milk not only to Friesland Hungaria Joint-stock Company, but to
other processors as well, such as the SOLE Hungary Joint-stock Company. Thus, the company managed to utilize this market counterweight and could ensure prices for the members higher than the Hungarian average. Every year, they applied for and won the subsidy provided for suppliers, which was maximized at 20 million HUF. These successes contributed to the fact that, by the end of 2004, the cooperation had already 83 members and a 252 million litre milk quota, which meant 9.6 billion HUF in turnover.

Value added activities added: buying up the Parmalat plant in Székesfehérvár

By the end of 2006, the company has significantly expanded. It supplied 7 processing firms with milk and its quota reached 400 million litres, which was 30% of the national quota of 1.4-1.5 billion litres. At that time the company had 153 members, its monthly turnover was near 3.2 billion HUF, which came out at 38 billion HUF per year (See Figure 2 below).

This fast and dynamic growth allowed for the possibility of a vertical integration based on horizontal co-operation (Markovszky, 2004). This process materialised in buying-up a Hungarian processing firm previously owned by Parmalat.

Figure 2: Dynamic growth of the Alföldi Milk Sales and Supply Ltd.

Source: Annual reports of the Alföldi Milk Sales and Supply Ltd.
The firm in Székesfehérvár was bought by Alföldi Milk Sales and Supply Ltd. on 1st November 2005. According to Tibor Mélykúti (managing director of the company), in order to raise enough own capital to buy the Székesfehérvár firm, the members of the Ltd. had increased the shared capital by 500 million HUF. Furthermore, more than 4 billion HUF in credit was borrowed, most of which was granted by the state through the Hungarian Development Bank (MFB), and some were supplied from other credit institutions for a two-year loan period (Nagy, 2005).

The purchased firm, a farmer-oriented processing company, functioned primarily as a market regulating tool (puffer capacity); however, in 2008, they processed 83% of their raw milk in their own plant, thereby producing higher added value. The Székesfehérvár firm, depending on its tied-up capacity, processes not only the milk produced by the members, but also processes milk produced by other farmers. The members see the benefits provided by the producers’ group in the fact that, through better bargaining power, they can get better prices in the market. They are paid 1 HUF/litre more than the country average, which is a remarkable feat and strengthens member commitment.

Actual situation and future developments: plans

Their share of the Hungarian milk market is about 30%, which is very important since 1/3 of the milk marketed on the market is controlled by producers.

Regarding profitability in 2007, the plant has become profitable with the help of the above mentioned long-term loans and with the joint work of the management and Alföldi Milk Sales and Supply Ltd., contrary to years 2005 and 2006. The profit of the plant was higher than 300 million HUF in 2007, contrary to the loss made in 2006 (250 million HUF).

The surprisingly strong Hungarian currency (HUF) was an advantage from the point of paying back loans; however, since their exports make up an increasingly greater share of their turnover (their share from the exported Hungarian milk is about 1/3), this has caused losses in the second half of 2007. Their main export markets are Italy and Romania, but they are present in Slovenia, Germany, Slovakia, the Czech Republic, Bulgaria and Cyprus, as well.

Regarding domestic markets, they are in every big retail chain (hyper and supermarkets) with 160 products. Some wholesale chains and EU export costumers are also their clients. They are not fully satisfied with the roles of the chains, e.g.

4 The actually paid-out average price was 71.35 HUF/litre in their case compared to Hungarian average of 70.39 HUF.

5 This section is mainly based on annual reports (Alföldi Milk Sales and Supply Ltd., 2008) and on an interview (2008) in Hungarian with Bihari Gáborné (Auditor of Alföldi Milk Sales and Supply Ltd.).
their price margin is too high, and sometimes the quality of their products is very bad. It is very important to consider that import of dairy products, especially different types of relatively cheap cheeses, has been increasing since 2005. The share of imports in the Hungarian market is about 25-30% depending on the seasonal surplus of milk in the EU, as well as on the current rate of the Hungarian currency (HUF). However, it is a relatively new phenomenon that at the same time there happens to be a shortage of milk on the EU market, which caused instability in contractual relations with fixed prices.

There was a continuous increase in the domestic trading delivery prices in the second half of 2007, however the profitability of processing activity has not changed, since the surplus has gone to the producers (Alföldi Milk Sales and Supply Ltd., 2008). Their main domestic processor partners in 2007 are Sole-Mizo Joint-stock Company, Kőröstej Ltd., M and M Sajtgyártó Ltd., Pannontej Joint-stock Company, Mark-Nagisz Ltd., Fino-Food Ltd., apart from their own processing activities.

Members use HACCP in their raw milk production and the processing plant also employs the same quality assurance system.

Commitment is relatively high among the owner-members due to the above-average milk price paid as mentioned above; however, last year (2007), some of them left (terminating their contracts) for somewhat higher prices. Therefore, the number of members was only 153 at the end of 2007, contrary to 2006 (158). Since they violated their contracts, they cannot become members again, which will cause a very difficult situation on the Hungarian milk market for those of them which are individual producers. There is a non-member trade as well which have ad hoc agreements with the processing plant.

Over the short term, they try to recreate financial stability, increase suppliers’ (producers’) trust, save the liquidity of the firm and strengthen their market position regarding final products and export. They also pay attention to product development, including new packaging design in the cases of products with higher price margins.

Long term strategies include enlargement of the group in logistically optimal regions of the plant and planned export activities, development of logistics and distribution system and modernisation of product assortment of the processing plant.

Summary

The results of our price transmission analysis, as well as our previous study on contractual relations in the Hungarian dairy sector, obviously show that only the
increase of input prices will increase the prices in the production-processing stage. Farmers are very vulnerable: they cannot enforce their interests separately and they are unable to act against the concentrated processing industry.

It must be emphasized that the problems of farmers and the co-ordination of the dairy chain cannot be solved simply by the EU and/or through government supports, but it seems to be vital in the case of emerging producers’ groups, like co-operatives, to be able to be founded and begin work (Meulenberg, 2000).

As a main body of our study, we summarised the strengths, weaknesses, opportunities and threats of the different coordination structures in the frame of a SWOT analysis, assuming two theoretical situations: when the coordination is initiated by the processor and when it is established by the farmer. Analysing the statements defined in both SWOT analyses, we found that, depending on the initiator of the coordination, there are significant differences between the strengths, weaknesses, opportunities and threats. There are common points, since transaction costs decrease and production is more cost effective in both cases. However, some factors occur as a strength in one system and as a weakness in the other, for e.g. quality. However, we can claim that in any organisation the key points of the successful coordination are financial power, quality consciousness, and professional management, and these factors are included as strengths in the processor-initiated coordination.

As a conclusion, we underline the importance of Western European (e.g., Danish and Dutch) experiences and the need for more producer-owned organisations, like co-operatives and producers’ group in Hungary. This is because we found that with the higher volume of milk sold, there is a resulting effect of stronger countervailing power. According to our results, we have to point out the role of co-operatives and producer groups in integrating small, individually week agricultural units. Thus, additional establishment of milk-collecting and bargaining type co-ops and the development of existing dairy producers’ groups would be essential for Hungarian milk producers.

The success story of the Alföldi Milk Sales and Supply Ltd. is a good example of vertical integration based on the horizontal coordination of farmers as initiators. The existence, development and the efficient business conducted by the producer owned organisation proves that through co-operation between farmers, there is an opportunity to significantly improve their countervailing power and to establish ownership for farmers in the processing stage of the Hungarian dairy chain. Higher degree of co-operation among producers is important from the point of view of better coordination of the entire chain, and it can enhance (consumer) welfare as well.

Further studies on producer – processors relationship, as well as on developments of producers’ groups and other coordination structures in the dairy
sector, would be useful to help farmers, decision makers of agricultural policy and politicians to establish a better functioning chain with more value added activities and a more balanced distribution of profits within the sector.

Regarding the whole society, the effect of developing and strengthening trust and social capital has primary importance apart from direct economic aims; therefore, in our future research, we will strive to pay attention to the human/soft side of the coordination and co-operation issues.

References


Possible Ways of Market Coordination and Integration


Interview