Successful Producer Owned Marketing Organisations in a Transition Country: Two Case Studies from Hungarian Agribusiness

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Abstract. S*tarting point of our analysis is that independent privately owned farm organisations in transition countries like Hungary can not countervail the market power of their business partners; therefore closer coordination (integration) of agricultural producers seems an appropriate solution. Apart from some theoretical considerations on co-operative rationale (based on New Institutional Economics), the main aim of the paper is presenting 2 case studies on producer owned marketing organisations from Hungarian agribusiness, one from the fruit and vegetable sector and the other one from the dairy chain. Conclusions from case studies are the followings. Such producers' organisations, like the Mórakert Co-operative and Alföldi Milk Selling and Supplying Ltd. can be a solution for farmers to cope with their problems arising from incomplete pricing mechanisms and to reduce transaction costs, at least at the regional level. They also are good examples for the vertical integration based on the horizontal coordination of farmers as initiators. Despite recent liquidity problems, they also proves that by co-operation there is an opportunity to significantly improve their countervailing power and to establish ownership for farmers in the upper part of the food chain if they can secure strict quality requirements, solid financing, loyalty and trust in their organisations.*

Keywords: co-operation, co-operative, producer owned organisation, trust, management, vertical co-ordination.

1. Introduction

1.1 Background and problem statement

There is a significant uncertainty in agriculture of transition countries due to deficiency of market institutions. Moreover, fragmented production structure and atomistic structure of land ownership can be detected. Two main types of coordination exist in a market economy: one is done by the state and the other which is run by private institutions. The latter one can be established by the processors/retailers (by contracts) or by producer owned organisations: co-operatives, producers' organisations and producers' group. Multinationals and other big companies can co-ordinate up to a certain level, but it is not enough and in most cases the sate can not or does not willing to co-ordinate food supply chains either. Cop-operatives and other producers' organisations can solve the market vulnerability of producers to a large degree and hence they are able increase their income as can be seen in Denmark, Holland etc. The necessity of set up a co-operative is depend on the structure of the market; characteristics of agricultural products (mass or specialised/value added ones, perishability etc.) and the share of the certain product in income of the farmer (i.e. main or by-product).

The starting point of our analysis is that independent privately owned farm organisations in transition countries like Hungary can not countervail the market power of their business partners; therefore closer coordination (integration) of agricultural producers seems an appropriate solution to solve the most critical problem mentioned above.

1.2 Main aims and methods

One of the main aims of the multi-phase research project in progress on producers' organisations is to analyse marketing co-operatives and other producers' organisations in the agri-food economy from an interdisciplinary approach including theoretical and empirical literature, as well as case studies. Apart from the so-termed „co-operative identity" concept[45,47] and New Institutional Economics considerations,

we use the intersections of other social sciences. Agricultural economics, marketing, law, organisational and co-operative theories all pay role in our research, along with sociological analyses, especially the ones dealing with trust, motivation and personal relations.

Apart from some theoretical considerations on co-operative rationale, the *main aim of this paper is presenting case studies on two leading producer owned marketing organisations from Hungarian agribusiness, one from the fruit and vegetable sector and the other one from the dairy chain.* We used New Institutional Economics especially Transaction Cost Economics as a theoretical background since it is a good basis for examining advantages/roles of co-ordination and integration.

The structure of the remaining of the paper is organised as follows. *In the next session* of present paper we show briefly theoretical considerations regarding the co-ordination/integration aspects of marketing co-ops using New Institutional Economics literature featuring mainly Transaction Cost Economics (TCE). In the third section of the paper we examine the Mórakert Purchasing and Service Co-operative. The co-operative is active in the fruit and vegetable sector and it was the first officially recognised Producers' Organisation in Hungary (2002). In this case study we focus on the development and innovation of the Mórakert Co-operative employing a variety of methods. First, literature searches and review of the most important studies on the topic, especially regarding any printed or multimedia materials available about the activity of the Mórakert Co-operative have been used. Second, interviews of major players have been conducted. *Section four* presents another short case study on the successful Hungarian producers' group named Alföldi Milk Selling and Supplying Ltd. which is a good example for the vertical integration based on the horizontal coordination of farmers as initiators. *At the end of our paper* we draw Conclusions with their implications and also outline some ideas for future research.

2. Economic advantages and limitations of co-operatives in vertical coordination

There is a great significance of different (marketing) organisations of agricultural producers in the agri-food economy of European Union, like marketing co-operatives[27,56,36], Producers' Organisations (PO) and Producers' Groups (PG). POs (like the case study Mórakert Co-op) are active in the fruit and vegetable sector and have to fulfil certain requirements. A significant advantage of the organisation, that the fruit and vegetable producers could afford the support of the EU solely through their POs. They exist in other legal forms as well, like joint stock companies, LTDs etc., however they main organisational form is co-operative, mainly marketing co-operative. Similarly, PGs (like the other case study: Alföldi Milk Selling and Supplying Ltd.) are exist in any of the above mentioned legal forms and they are active in dairy sector gaining some supports from EU if they meet certain criteria.

Marketing co-operatives in Western Europe and US are specialised to process and sell the products of their members and used to be considered as the classical form of co-operation of different and independent farmers in order *to protect themselves against the large commercial and/or industrial companies* which are often in a monopolistic or oligopolistic position. They use *long, medium and short term contracts* to secure the raw material for them and to be able to govern the whole marketing chain. The co-operative, *in the modern sense, is a hybrid formula*, because above 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, and on the other hand that members will enjoy their advantages and fulfil their duties.

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" [2: p.1]. According to the above definition *three main relations* exist between the member and the marketing co-operative: the *product*, the *capital* and the *democratic managing-control* line.

The recent co-operative literature emphasizes the following *potential incentives* for the establishment of *co-operatives as a form of vertical integration*. *First*, co-operatives traditionally can provide *access and secure markets* for the long term, therefore give *protection for independent farmers* against the large commercial and/or industrial companies. They can also carry out *services otherwise not or available at very high costs*. *Second*, co-operatives *build up countervailing power* and above a certain economics of scale they act as *competitive yardstick* for non-co-operative, conventional firms and the whole sector with a *better influence on the market and prices*. *Third*, co-operatives in some cases can *increase technological and market efficiency* 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 consumer to farmer and with a unified decision role between two or more

levels of the marketing channel. The co-operative can also *lowering both economic and technological uncertainties*, therefore decrease transaction costs. To *avoid (ex post) hold-up problems* in the case of perishable products and different types of asset specificity is also a main reason to use a co-operative as a governance structure. *Finally*, co-operatives can *increase the income of the members* above by lowering transaction and production cost, by *reimbursement of the surplus for the members made at another level* of the marketing channel.

Furthermore, the co-operative is a partial vertical integration, which means that farmers can save a relatively high degree of *independence of economic action*: "Thus, it is possible to reduce transaction costs and uncertainty through the cooperative and maintain the entrepreneurial incentives through the market at the same time." [35: p.88]

Because of human factors, especially the trust between the members and the co-operative, *hold-up problems usually are not as significant as in the processor-initiated case*. However, despite the advantages mentioned above, *agency problems* still might occur in co-operatives[45, 9, 10]. As a very closely related issue to TCE and the (democratic) decision making process, there are a number of *potential problems of the traditional (countervailing power) co-operative model*[56,34] according to the *agency theory*[33, 5, 61]. Based on the incomplete contract assumption, the *agency theory concentrates on incentive and measurement* problems featuring the *individual* and not focuses on the transaction which is the basic unit in TCE[28, 42]. 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 arise different incentives, therefore managers sometimes carry out business according to their objectives at the expense of the owners[42].

The most *important agency problems can be divided into two main groups*[57]: *investment related and decision-making process agency problems*. *In the first group* one can find the *common property problems* including external and internal free rider problems, *horizon* and *portfolio* problems, which are connected to the member interest to invest into the co-operative. The *decision-making process agency costs are relating to monitoring* and *follow up the management activities*, as well 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[5] employs a co-operative life-cycle model consisting from five stages, whereas on stage three he definite five problems. *The five inherent organisational problems of co-operatives* are the following: *free rider, horizon problem, portfolio, control and influence cost* problems.

There are some possibilities for co-operatives to cope with the above listed organizational weaknesses. The co-operative *can solve* some of the *control and influence cost problems*[22]. But the spread of *new co-operative models with alternative financing methods and new organizational structures/strategies*[56, 58, 32,34] report a possible response for the recent changes in European agriculture. Even *some other forms of alternative producer governance structures* with appreciable and transferable equity shares[43] are likely to emerge, as well as *grower associations and participation companies*[15]. However, it should be stated, that there exist a so-called *conversation process*, e.g. co-operatives transform themselves into CF (IOF) structure, like in Ireland[14, 62]. In the latter cases, well defined property rights[22] and the transferability of the residual claims (co-operatives shares) on the secondary market can solve almost all the above mentioned agency and property rights problems. Harte[14] finds the above mentioned conversation process as a sure and "normal" stage of his co-operative life-cycle model.

We may conclude that agricultural co-operatives have *advantages*, where *there is a significant market failure problem*, especially in the cases of some perishable products like fruit- vegetables and milk, and when the market is not saturated. When the market-mechanism is working well and the different types (contracting, monitoring, enforcement) of transaction costs are not high compared to the internal organization costs, then *a co-operative organizational form is not as desired governance structure and/or marketing strategy*, than in the previous case[14]. Hendrikse and Veerman[15] also argue that in differentiated product markets with a high level of asset specificity, marketing co-operative is probably not the best solution as a governance structure. They predict governance structures in which members (farmers) have less decision power. Even *some other forms of alternative producer governance structures* with appreciable and transferable equity shares[43] are likely to emerge, as well *grower associations and participation companies*[15].

In the next part of the study we examine the development and integration role of the Hungarian Mórakert Purchasing and Service Co-operative which is active in the fruit and vegetable sector.

3. Case study on Mórakert Purchasing and Service Co-operative[1]

3.1 The general development of Mórakert co-operative

Agriculture has a traditionally important part in the Hungarian economy, especially regarding its share in export and rural employment [44]. Within Hungarian agriculture, the fruit and vegetable sector plays a relatively important role. The share of private farmers is relatively high in Hungary in fruit and vegetable production; however most of them are relatively small farmers, sometimes with only a household plot. Majority of farmers face significant market uncertainties without reasonable risk-sharing techniques and their output fluctuates considerably.

Mórakert Purchasing and Service Co-operative was the first officially recognised Producers' Organisation (PO) in Hungary certified in 2002. The process of establishment of POs is rather slow in Hungary so far. The share of POs in marketing Hungarian fruits and vegetables is about 15-17% in July 2009 and the number POs are about 44-45 from which 40 have been already officially recognised[41]. According to some expert opinion, the concentration of existing POs would be even more important than establishing new ones in order to be able to establish countervailing power against the retail chains dominating the food retail sector in Hungary[2].

Mórahalom is a small town in county Csongrád between Szeged and Baja in the south-eastern part of Hungary. This city is the centre of the Homokhát Region. This area is a typical agricultural area, which means that more or less the only way for its inhabitants to earn their living is by agricultural production. Approximately 75 per cent of the population of Mórahalom is involved in agriculture. There was a situation in the micro region of Mórahalom in which about 1500-1800 private (small-holder) economic units attempted to do business at their own risk in the beginning of nineties. The average area cultivated by the small-holders varied between 3 and 5 hectares. The greater portion of production was usually sold on different markets. The situation was very similar to other rural regions of Hungary. The problem was connected with the market relation of producers: they were too small to purchase their inputs and to sell their produce. The producers faced oligopolistic and monopolistic players on the market, so they could not influence the negotiation process (including the price offered to them) with their potential partners. At the same time producers have not enough information about the market, like prices and different actors and they have very limited negotiation power. It was a real and huge need to build up countervailing power for the small-holder economic units.

In 1993 the Department of Agriculture of the local authority was established in order to help small-holders submit forms for various applications. The main incentive (and initiative of Zoltán Nógrádi, who is the mayor of Mórakert at the time being) for establishing a co-operative was very similar to the Danish tradition. As next step to strength agricultural producers, the Common Agricultural and Entrepreneurial Society, Mórahalom was established in January 1994 with the aim of organizing small-holders within a loose network. It was a non-profit organization. The number of founding members of the Society was 35. The main activity, in addition to organizing joint projects, was the organizing of collective purchasing activities. This type of co-ordination was successful, and in some cases savings of 18 or 20 per cent of the purchase cost were achieved.

These joint purchasing activities were extremely successful, as they could decrease transaction costs, e.g. information, negotiation and transportation costs. However, the main problem was rather to co-ordinate the marketing of the small-holders' produce. Therefore, the next step was to set up the Mórakert Purchasing and Service Co-operative, Mórahalom in April 1995.

The co-operative extended its membership and circle of suppliers (2000 in total in 2005[19]) during the period of 1995-2007 and tried to involve more segments of the chain. Table 1 shows the main data on the case study co-operative concerning years 1998-2005.

[1] More detailed case studies on Mórakert Co-operative can be found in the works by Szabó G.G. [46, 48] and Bakucs et al. [3].

[2] One can find more information on the fruit and vegetable sector and more specifically on Hungarian POs in studies by Fertő and Szabó[9,10], Dorgai[7], Kapronczai et al. [25] and Szabó and Kiss[51].

Table 1. Main data on the Mórakert co-operative concerning years 1998-2005

Year	Agricultural net revenue (in 1,000 HUF)	Total net revenue (in 1,000 HUF)	Share of agricultural and total net revenues per cent	Number of members	Equity share capital (in 1,000 HUF)	Number of business partners	Share of own and foreign equity	Turnover (t)
1998	250837	251410	99.77	59	1300	400	74.37	
1999	566775	567810	99.81	131	1300	500	53.91	
2000	1248737	1250464	99.86	189	1300	600	45.53	12500
2001	1584329	1586604	99.86	288	11275	1000	52.69	14961
2002	2281186	2282966	99.92	289	11275	1500	69.86	22620
2003	3639094	3777771	96.33	476	11275	2000	78.62	30359
2004	4078642	4641618	93.94	630	80920	2500	53.05	38541
2005	5166380	5839921	88.47	699	118830	3000	42,11	37294

Source: Mórakert Co-operative, 2006 [30]

The increase of both membership and the turnover of the co-operative demonstrate that the co-op was operating efficiently during the above period. The total net revenue of Mórakert co-op has reached the amount of HUF 8 billions in year 2007, which was very significant regarding the sector. However, years 2008 and 2009 were not as successful as the previous ones, for example the turnover of the co-op in the first half of 2009 is about 40 percentage of the one in similar period of 2008. They expect a turnover of about 4 billions in 2009, which is only half of the results in 2007. The main important problem are the ones connected liquidity (summarised in subsection 3.5); members do not trade their products to the co-operative, instead they try to sell them on spot (generally on grey and black markets) getting cash immediately. While that way of short-term thinking and thus bypassing the co-operative route destroy the marketing channels of the co-op (see subsection 3.6) members can be understood: they have to finance their family' life and also their own farming. The Co-op has 776 owner - members in July 2009.

3.2 Marketing of Mórakert Co-operative

The main co-ordinators/channels used in Hungarian fruit and vegetable sector are the following: local market, wholesale markets, production co-operatives, marketing co-operatives, producers' organisation, processing industry, wholesalers and retailers[23]. However, it should be noted that spot markets and different types of contracts (including in some cases contract production) are the most common forms of co-ordination. Different retail chains gain a progressively larger share of the fresh fruit and vegetable market. It is therefore very important, that farmers have to use marketing channels which could give them the strengths (countervailing power) of more concentrated organisations.

About 90per cent of the products[3] distributed on domestic markets by the case study co-operative are sold to retail chains (Tesco Global, Auchan Hungary, Csemege-Match, SPAR Hungary, PROFI Hungary, CORA, CBA etc.), so they have significant shares in the Mórakert co-operative trade. In the first few years of the co-op existence the share of the retail chains was about 5-10% in the total sale, while the proportion of wholesale markets and chains has been changing gradually and significantly in the period of 1997-1999 up to 90% which is still the share[40].

Some products are sold *on a contractual basis according to weekly prices*. The co-operative is more or less satisfied with the contracts and connections already established, but it should be noted that it is extremely difficult to fulfil the exacting requirements with respect to quality, quantity and range and the other terms of trade and payment stipulated by the retail chains. However, these chains do provide a secure market and a degree of stability for the farming activity of the members. The question of monitoring is becoming crucial in the context above. The co-operative uses HACCP, EUREPGAP and BRC quality assurance system to meet legal and market driven requirements [13, 40].

[3] Main products produced by members and marketed by the co-operative are sweet green pepper, kapia pepper, round red, pepper, tomatoes, cucumber, cabbage, Chinese cabbage, cauliflower, watermelon, apple, sour cherry, plum.

To be able to increase the value of the members' products, the co-operative seeks opportunity for export. 80% of the produce purchased from members is sold on the domestic market and 20 % abroad (Austria, Estonia, Germany, Latvia, Lithuania, Czech Republic, Romania, Russia, Scandinavia, Serbia, Slovakia and Slovenia). Recently, the co-op try to extend its export activities, especially to Romania with an establishment of a joint venture.

The co-operative pays emphasis on the quality and homogeneity of their products, however they try to assure a versatile assortment in order to fulfil the requirement of the retail chains. They occasionally buy products on spot markets and sometimes from import. However, first the co-op sells the products of the members, than, if needed, they call for the produce of non-member suppliers and/or they are going to buy import products to be able to fulfil the requirements of the consumers (e.g. retail chains) just in the last case.

The co-operative has a site equipped with a full infrastructure. A handling, sorting and packaging line for vegetables and fruit was put into operation in September 1999. In 2002 a so-called "agri-logistics centrum" was set up by the co-operative, which covered 4,000m^2 including a cold storage depot which was 1/4 of the total area. These investments were crucial role in food safety, environmental and hygiene requirements to be able to meet with specification of the European Union. The third phase of development was enlarging the "agri-logistics centrum" with 6,000 m^2 storage facility. In June 2006 the co-op use 15,000 m^2 and 6 hectares in Mórahalom, which is a significant increase from the start. The facilities are fitted with modern sorting and packaging line, qualifying 20 per cent of the co-op' products for export. Everything can be handled in one place, such as purchasing, handling, sorting and packaging of products coming from members and other suppliers, as well as the storage and transportation activities. A computer supported information system helps the work in the new headquarters.

One of the main steps for the co-operative to improve the competitiveness on segmented markets is to differentiate its products from those of other producers (e.g. branding). The co-operative endeavours to integrate, not only horizontally but also vertically, the members' farming activities, and also to develop activities with higher added value.

3.3 Advantages of integration for small and medium size farmers offered by Mórakert Co-operative

Mórakert co-operative can decrease transaction costs for the small and medium size farmers-members in a number of ways. In line with purchasing input materials and to selling vegetable and fruit products produced by the members the co-operative is still endeavouring to establish secure markets for the long term. It is extremely important since, producers have got a high degree of market and technological uncertainty. The co-op organizes the buying of input materials and the functioning of selling outlets in a more coordinated way, therefore promoting farming for the small-holders through better market prices. To achieve competitiveness, in certain cases the co-operative works on the basis of so-termed production contracts, which involve the co-operative detailing the requirements for the producer to ensure that the necessary quantity is produced. At the same time efforts are made always to purchase input materials of the same type, to enable members to accomplish excellent, balanced quality in their production. *Providing information* is also very important with respect to the success of the co-operation between the co-operative enterprise and its members. The co-op carries out *other services* for the members, like *transportation products and inputs*, providing *consultation* (advice) within various fields, such as plant cultivation, the *filling in of application forms* for subsidies, *(cold) storage*, *factoring* in order to help farmers to get their money for their produce as soon as possible etc.

All in all, apart from lowering transaction costs, the Mórakert Co-operative can provide almost all of the general advantages of co-operatives in vertical integration. It could build up countervailing power and secure markets, increase technological and market efficiencies, carry out activities with higher added value. The Mórakert Co-operative can also lowering uncertainties and decrease information cost for the members.

As a result of growing concentration of market actors concentration, "numerous different vegetable and fruit producing organizations (abbreviated as PO's) of the South Alföld region, each with acceptable business functioning, established the DATÉSZ Dél-Alföldi ZRt [DATÉSZ South-Alföld Joint-Stock Company] on April 2, 2004, with its seat set up in Mórahalom. Currently (probably in 2006, author) there are 14 members of DATÉSZ ZRt from Bács-Kiskun, Békés, Csongrád, Jász-Nagykun-Szolnok, and Pest countries" [6]. It is a so called *secondary or regional type co-operative* which can be a good institution to build up countervailing power thus to secure markets for the members, to increase product's prices and in

the meantime to reduce transaction costs. Through mergers and exit, currently (July 2009) DATÉSZ ZRt. has only 3 member organisations from which Mórakert Co-op is the biggest PO.

However, because of liquidity problems (see 3.5. for details) the organisation needs and probably will get financial support (600 million HUF) from the state during 2009 which loan in turn will mean (at least temporary) state ownership in the organisation. There a number of requirements, namely DATÉSZ will make a business plan including a guarantee of 11% interest on the capital which has to be paid back in 5 years[55]. The main reasons why the state supports the organisations are securing thousands jobs in rural areas, providing "hopes" for organisation (producers, suppliers etc.) who are largely dependent on POs' activity and also to avoid mass bankruptcy among POs since in some cases huge amount of supports from EU would have to be paid back.

3.4 Capital requirements for members and supports for the co-op

Regarding to the specific forms in which the small-scale holders included in the restructured market, suppliers of Mórakert co-op are organized small-scale farmers of primary products and at the same time the members of the organisation are owners of a segment of supply chain. The by-law of the co-operative which is in accordance with laws and other legal regulations concerning POs and co-operatives in the EU and Hungary contains the rules, rights and obligations of the members. Therefore, the by-law regulates the product, capital and management/control line of the co-operative member connections.

To fulfil the above mentioned aims and to be able to reduce transaction costs, the co-operative members and the co-operative had to invest significantly in order to increase of the value added of the products sold. Some of the investments, made by the members and the co-operative as well, are really specific, thus strengthening closer co-ordination. The value of the so-termed co-operative share, which represents the ownership and there is an obligation in the by-laws of the co-operative to purchase to become a member, increased from HUF 25,000 (1995) to HUF 190,000 (2009). The above mentioned contribution is only partly enough for providing financial support needed for the development described above. New members have to pay an additional amount of HUF 330,000 as a single payment contribution for investment carried out on behalf of the co-operative for the interest of the members. The above requirements are detailed in the by-laws. There is also an amount of 4.6 % of the turnover which has to be paid or is hold back as a contribution to the operating costs of the PO in order to get the same amount of subsidies from the EU[18].

Apart from the financial contribution from the members, the co-operative organization itself has got some non-financial support from the local authority and significantly has some state and European Union supports according to its successful tenders. Noteworthy is that the co-op was excluded to pay local tax between 1996 and 2002 thus local authorities of Mórahalom supported the co-op in its initial phase of development. Nowadays the co-op pays significant amount of local tax, helping the development of the town into a beautiful middle town with full infrastructure which change can noticed by any visitor.

The co-op can get support of HUF 150 million from the budget of European Union, since it meets the requirement regarding POs in the fruit and vegetable sector. They use also bank credits and loans, including revolving charge account causing the fall in share of own equity of the co-op to 42 per cent in 2005. However, the main important point is that the co-op reinvests the significant part of the surplus made in the co-operative annually.

3.5 Liquidity problems from 2008[4]

Due to a number of reasons Mórakert Co-op have been facing some liquidity problems coming from macro- as well as microeconomic situation from the second half of 2008. The most important problems ("effects") are two folds; both can be traced back to current liabilities which are about to the amount to 3 billions HUF in July 2009:

1) Huge delays in payments to members for the their products (2 billions HUF),
2) Loans mainly for development (1 billion HUF).

Summarising the causes which had been led to the very hard situation today we can divide them into 2 main groups. *Macroeconomic and external issues* were and are the followings:

1. Financial and economic crisis resulting less domestic demand for fruit and vegetables.
2. Higher share of import of fruit and vegetables in Hungarian market.

[4] This section is based on interviews with leaders of Mórakert Co-operative made in July 2009[18, 20, 21, 41].

3. Producers' organisations and co-operatives are not competitive because of the black and grey trade on spot markets.
4. Banks willingness declines regarding financing current assets (revolving funds).
5. Late pay-off of the supports (EU funds).
6. Delayed payments (60-70 days after delivery) from the retail chains.
7. High financial burden due to "non-price character financial parameters" (e.g.: listing and the so-called "shelf" fee, various donations and bonuses etc.) set up by the majority of retail chains.

Main important microeconomic and internal problems of the Mórakert Co-op were the followings:

1. There were no reserve funds due to non-profit character of the co-operative.
2. Too fast development and groth.
3. Structural problems of the Mórakert Group
4. Efficiency problems, regarding delivery the right quality and quantity to the market (retail chains).

Solutions of the above liquidity problem currently (in July 2009) are coming from 4 sources: members' loan from the local authority (municipality), members' contribution in different ways, state intervention through DATÉSZ Zrt. and remodelling (restructuring) the co-operative into a "for-profit" organisation (to get reserves and savings for financing their development) including a cost saving plan and changes in the management.

3.6 New Institutional Economics considerations in case of Mórakert Co-op

Theoretically, *main problems might be the horizon and the common property* ones. However, at this stage of co-operative development members of Mórakert have not experienced these kinds of problems. To be able to solve potential horizon problems, the co-op used a magazine for disseminating information, they organized "professional evenings" for members and developed a text message system providing short information for members, and currently they are also developing a website. However, as the co-operative gets bigger and because of the liquidity problems mentioned above; the president and the new managing director had personally talked with all the members one by one in order to ensure they vote for the necessary changes before the assembly of delegates.

Despite of general loyalty to the co-operative, there are a number of cases when members do sell on spot markets in order to get a little bit higher price temporary. Generally speaking, members *have to make significant steps to the "opposite direction"* than the co-op *to be excluded* from the "benefits" and advantages offered by the co-op. Contracting could be a very important issue when talking about exclusion, but there is a demand-driven market most of the times in case of fruit and vegetables, so very often the co-op can not enforce contracts. Contracting discipline is very weak, as generally in the sector, therefore the exclusion of a member because of underachievement is very rare and only takes place if somebody violates the rules settled down in the by-laws heavily.

However, a question of importance was that the co-operative should be able to influence the farmers' way of thinking in order to *avoid by-passing*. The small-holders soon realized that they could save transportation costs and time by selling in bulk quantities at the co-operative site. More balanced prices for their produce also gave an incentive for the small-holders to sell to the co-operative. A very important step was that members accepted what kinds of vegetables and fruit it would be better to produce to find a relatively secure market, to attain higher prices and to ensure better conditions for sale. It was an indispensable requirement that members should decide to sell their produce through the co-operative, even if it were possible to sell it at higher wholesale market prices. Members, who supplied between 90 per cent and 110 per cent of the contracted quantity in the contracting period, get a bonus of 2 per cent. Members can alter from the contracting quantity concerning given year to both directions by 10 per cent without any consequences.

The co-operative also deals with produce derived from non-members, in the interest of achieving better exploitation of its capacity. *Non-member trade is also very important* for the co-operative from the point of growing turnover, however their products are only bought up when members' fruit and vegetables have already been intaken, they won't get any reimbursements or price supplements and they have no voting rights; therefore the *free rider problem is not a hot issue* so far in Mórakert co-op *from an incentive point of view.*

However, the non-member trade was a question of importance in the case a PO since *majority of the trade has to be done with members according to EU regulation* in order to get support. The share of the members from products supplied was 60 percent which has changed to 40 percent in the year 2005. In order to be able to fulfil the requirements of POs in EU the co-op currently develops a new organizational

model resulting in a kind of holding form. The members and other suppliers still sell their products to the co-operative which is the owner of an Ltd. called *Mórakert TÉSZ KFt.*. The Ltd. is the one who is in contact with clients (mostly retail chains). The business partners (consumers) are the same, the administration is almost the same of the Mórakert Co-op, since they use an integrated resource planning system. The owner of the Ltd is the Mórakert co-op (92%) and the authority of Mórahalom (8%), so this is still a producer-owned organization. This system ensures that the co-op can get support from the budget of European Union, since fulfil all the criteria regarding POs in the fruit and vegetable sector. Thus, free-rider problems seemed to be solved at the time being, but it might occur in the future.

3.7 Conclusions of the case study

Conclusions from the first case study on the Mórakert Co-operative (fruit and vegetable sector) are the followings. Such organisations, like the Mórakert Co-op can be a solution for farmers to cope with their problems arising from incomplete pricing mechanisms and to reduce transaction costs, at least at the regional level.

Until recently Mórakert co-operative was a good example, how an agricultural co-operative can achieve some of the potential advantages, solving many "traditional" Transaction Cost Economics and agency problems and serving its members with a continuing growth. It worked as a very successful co-operative (e.g. in terms of increasing annual turnover and membership until 2007) thus being a good example for a number of emerging producer organisations. Despite the financial-economic crisis and problems mentioned above, Mórakert co-operative is still a strong marketing implement for its members and also has a radiation effect on the regions it works, however it has to make some radical changes to gain back the loyalty of the members and stay competitive. They probably will work in a for-profit way instead of being a strictly non-profit organisation.

The co-op has the capacity to fulfil the basic objective: help farmers to sell their horticultural products, purchase input materials on their behalf at the most favourable prices, and offer long term security. However to be able to establish such countervailing power and to reduce the co-operative's transaction costs, the co-operative is more and more dependent on non-members trade, which practice *might arise free-rider problems, although* seemed to be solved at the time being. Despite the co-operative can solve some of the horizon problems, if the co-operative is going to grow, *it may face with the common property and horizon problems*.

The success of Mórakert Co-operative was due to the friendly and supportive approach of the local authority, the various sources of capital derived from funds for development, and above all, the trust and loyalty within the co-operative. As the president of the Mórakert Co-op said: "*The retrieval of trust (of the members, author) is a matter of money*" [18]. The main important weapons in the hands of the co-operative manager and president are secure markets and relatively high prices for good quality products coming from members and non-members alike. However, in a following stage of co-operative development the co-operative will face with a number of liquidity problems and the issues usually emerged in the case of traditional (countervailing power) co-operative model which probably will influence and change marketing, financial and possibly the organisational strategies of the co-operative.

4. Case study of Alföldi Milk Selling and Supplying Ltd.[5]

4.1 The funding and history of the Alföldi Milk Selling and Supplying Ltd.

The Alföldi Milk Selling and Supplying Ltd. is a *special type of cooperation operating as a producers' group*[6]*(PG) in form of a business enterprise (Ltd.) in Hungary*. It is a self-organised group of farmers, which members cooperate not for production but for selling purposes, in order to create the countervailing power against monopolistic commercial and processing players in the chain, and to ensure the benefits of the members. Only producers can be members, if the members sell their cows they membership are

[5] Section 4 is a joint work with Péter Popovics[52, 53, 54]

[6] PGs are active in different branches of agriculture supported by European Union if they can fulfil a special set of requirements. There are 11 PGs in the dairy sector and altogether 262 can be found in the whole Hungarian agri-food economy in 2009[11]. Further references and descriptions on Hungarian dairy sector can be found in a number of recent works[8, 11, 17,37, 38, 39, 49, 50, 59, 60].

terminated automatically. The uppermost authority is the general assembly which is usually gathered together 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 etc.) for their *members traditionally co-ops use to offer to their members*!

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

The owner-members of the organisation have *300 cows/farm as an 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 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 in the past and they can pay an average market price despite the crisis in 2009*. They applied for and won every year the subsidy provided for suppliers, which was maximized in 20 million HUF. These successes contributed to the fact that, by the end of 2004 the cooperation had already 83 members and 252 million l milk quota, which meant 9.6 billion HUF turnover. The number of members was 151 (2005) and 158 (2006); and turnovers were 30.9 and 39 billion HUF respectively. The Ltd. had 427 employees and 153 owner-members at the end of 2007 (contrary to 2006 when there were 158 owner-members) because some members left for a little bit higher prices in 2007. In 2008 34 billion HUF turnover was made and the Ltd. had 146 members.

There are the same number of members in 2009 and they have already made a two-step extra capital accumulation this year with amounts of 100 million HUF (February) and 120 million HUF (April) mainly for technology development purposes. Share capital of the Ltd. was about 1.2 billion HUF in May 2009 [12].

4.2 Activities with higher value added: buying up the Parmalat processing plant

By the end of 2006, the company has significantly extended. It supplied 7 processing firms with milk and its quota reached 400 million litres, which was *30% of the 1.4-1.5 billion litres national quota*. 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.

The fast and dynamic growth both in numbers of members as well as in turnover allowed for the *possibility of a vertical integration based on horizontal co-operation*[29]. This process materialised in buying-up a Hungarian processing firm earlier owned by Parmalat. The firm in Székesfehérvár was bought by Alföldi Milk Selling and Supplying Ltd. on 1st November 2005. According to Tibor Mélykúti (managing director of the company) in order to raise the sufficient own capital to buy the Székesfehérvár firm, the members of the Ltd. had *increased the shared capital with 500 million HUF*. Furthermore, more than 4 billion HUF 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[31].

The firm - earlier owned by Parmalat - being a farmer-oriented processing company functioned primarily as a *market regulating tool (puffer capacity)*, however in 2008 they processes *83% of their raw milk in their own plant 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 have paid 1 HUF/litre more[7] than the country average, which is a remarkable feat and strengths members commitment.

[7] The actually paid-out average price was 71.35 HUF/litre in their case compared to Hungarian average of 70.39 HUF in 2007. In the first quarter of 2009 the paid-out average price was as low as 57 HUF/litre such as the average price on the Hungarian market.

4.3 Markets and their requirements: development and plans[8]

Their *share of the Hungarian milk market is about 30%*, which is very important since 1/3 of the milk marketed on 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 Selling and Supplying 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 *export get higher and higher share* in their turnover (their actual share from the exported Hungarian milk is about 1/2), it causes losses in the last few months. Their main export markets are Italy and Romania, but they are present in Slovenia, Germany, Slovakia, Czech Republic, Bulgaria, Croatia and Cyprus as well. They export about 400-450,000 kilograms of milk daily, the total capacity of the processing plant is about 800,000 hectolitres [12].

Regarding *domestic markets*, their 160 products can be found *in every big retail chain* (hype- and supermarkets) but some wholesale chains and EU export costumers are also their clients. They are not fully satisfied with the roles of the chains e.g. their price margin is too high, the quality of their products is sometimes very bad etc.. It is very important to take into consideration that *import of dairy products*, especially different types of relatively cheap cheeses, has been increasing since 2005. The share of import in the Hungarian market is about 25-30% depending on the seasonal surplus of milk in 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 is 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 Selling and Supplying 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*.

Although it is not a co-operative, *commitment* is relatively high among the owner-members due to the above average milk price paid as mentioned above and also the investment the members had made, As mentioned before, some of them left (terminating their contracts) for a little bit higher prices in 2007, therefore the number of members was only 153 at the end of 2007. Since their violation of contracts, they can not be member again which will cause of a very hard situation for those individual producers on the Hungarian milk market. There is a non-member trade as well; they have got ad hoc agreements with the processing plant.

On short term they try to recreate financial stability, increase suppliers' (producers') trust, saving liquidity of the firm and strengthening market position regarding final products and export. They also pay attention on product development including new packaging design in case of products with higher price margin in order to increase the value added.

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.

4.4 Conclusions of the case study

As a main conclusion of the case study on Hungarian Alföldi Milk Selling and Supplying Ltd. presented, we have to underline that the *above structure is unique*. *First*, it is a *member-controlled business*, but not a co-operative. It has a similar structure to New Generation Co-operatives in US[5, 22,32] since it has a kind of "holding" format (the processing plant is owned by a Producers' Group existing in Ltd legal form) and members had made a significant up-front investment when they established the company. *Second*, the above *organisation structure is very effective* so far and can offer almost the same *advantages (like reducing transactions cost, lowering technological and market uncertainties* etc.) traditionally co-ops could secure; but also *combines efficiency in processing and marketing*, as well as *flexibility* in business (e.g. to open to export markets.) which are usually weak points in case of agricultural co-operatives.

[8] This section is mainly based on annual report of Hungarian Alföldi Milk Selling and Supplying Ltd. [1] and on an interview (2008) in Hungarian with Bihari Gáborné[4].

Third, the "owner" of the dairy processing plant and the *basis of cooperation is a producers' group* which get some supports from the state and EU (apart from using their own investments mentioned above and credits from the market) thus financing is not a big problem contrary to the practice of traditional co-ops. *Fourth*, *human factors* (e.g. trust, power, motivation etc.) and *management abilities strengthens the economic efficiency* of the firm. Since they pay higher milk price than the Hungarian average and secure (growing) markets for the owners therefore *commitment is relatively high*. It is very interesting fact that they are continually trying to *increase suppliers' trust* as one the key elements of their success.

5. Conclusions

It must be emphasized that the *problems of farmers coming from market imperfections and co-ordination of the dairy chain cannot be solved simply by EU and/or government support*, but it seems to be vital in the case of emerging *producers' groups, like co-operatives*, to be able to set up. As a conclusion, we underline the *importance of Western-European (Danish, Holland etc.) experiences* and the need for more producer-owned organisations, like co-operatives and producers' group in Hungary.

We can summarise our empirical findings with listing the *conditions for successful collective marketing done by producer owned organisations* as follow:

1. real economic necessity,
2. willingness to co-operate – demolition of mental/psychological barriers,
3. screening of potential members,
4. strict and exact quality and quantity requirements for products delivered to co-op/producers' group,
5. consistent adherence of delivery obligations,
6. ensuring balanced (liquid) financing both short- and long-term,
7. trust between members and management,
8. efficient and multi-way communication.

The crucial issue for the future of agricultural co-operatives is the loyalty of farmers to their co-op and the leaders of the co-operative, especially under uncertainties dominating in the transition agriculture like in Hungarian fruit and vegetable sector. The "organised trust" connected to relational connections in the co-op are crucial factors to solve the first hold-up problem, e.g. prevent post harvest hold-ups[16], at least at the relatively low level of product differentiation. It seems to be empirical evidence that trust is an essential mechanism to increase the loyalty of members to co-ops.

Mórakert Purchasing and Service Co-operative and the Alföldi Milk Selling and Supplying Ltd. are *good examples for the vertical integration based on the horizontal coordination of farmers as initiators*. Despite recent liquidity problems, they also proves that by co-operation there is *an opportunity to significantly improve their countervailing power* and to *establish ownership for farmers in the upper part of the food chain* if they can secure *strict quality requirements, solid financing, loyalty and trust* in their organisations. Higher degree of co-operation among producers is important from the point of *better coordination of the whole chain* and it can *enhance (consumer) welfare as well*.

However, one has to take into mind that co-operatives and other producer-owned organisations have *additional non-economic advantages as well*, for example they can contribute to *rural development and secure jobs* (by multifunctional agriculture, rural tourism, employment by the co-operative etc.) which are very important tasks especially in less favoured areas. They help to *save the environment* also with offering traceability partly due to the long and close social relationship**.** They contribute to *social benefit* (ethics, values etc.) as well as they are *socially responsible by nature*[24].

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

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