



*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

*No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.*

# **Integration of small and medium size farmers by co-operatives in the Hungarian fruit and vegetable sector – a case study**

*GÁBOR G. SZABÓ*

Hungarian Academy of Sciences

Institute of Economics,

Budapest, Hungary

E-mail: szabogg@econ.core.hu



**Paper prepared for presentation at the 104<sup>th</sup> (joint) EAAE-IAAE Seminar**

**Agricultural Economics and Transition:**

**„What was expected, what we observed,**

**the lessons learned.”**

**Corvinus University of Budapest (CUB)**

**Budapest, Hungary. September 6-8, 2007**

*Copyright 2007 by Gábor G. Szabó. All rights reserved. Readers may make verbatim copies of this document for non-commercial purposes by any means, provided that this copyright notice appears on all such copies.*

## **ABSTRACT**

The main co-ordinators/channels used in Hungarian fruit and vegetable supply chain are the following: local market, wholesale markets, production co-operatives, marketing co-operatives, producers' organisation, processing industry, wholesalers and retailers. Different retail chains gain a progressively larger share of the fresh fruit and vegetable market. It is very important, therefore, that the farmers have to use marketing channels which could give them the strengths (countervailing power) of more concentrated organisations. In this case study, we examine the integration role of Mórakert Purchasing and Service Co-operative, in Mórahalom in county Csongrád which can be found in the southern east part of Hungary. The Mórakert co-operative active in the fruit and vegetable sector and it was the first officially acknowledged Producers' Organisation (PO) in Hungary. It works as a very successful co-operative (e.g. in terms of increasing annual turnover and membership) thus being a good example for a number of emerging producer organisations.

**Keywords:** fruit and vegetable, integration, co-operatives, Producers' Organisation, Hungary

## **1 INTRODUCTION**

### **1.1. Background and motivation**

Agricultural economy in transition economics can be described by considerable uncertainties, especially in the fragmented sector like fruit and vegetable. Within Hungarian agriculture, the above sector plays an important role. The main co-ordinators/channels used in Hungarian fruit and vegetable supply chain are the following: local market, wholesale markets, production co-operatives, marketing co-operatives, producers' organisation, processing industry, wholesalers and retailers. 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 very important, therefore, that the farmers have to use marketing channels which could give them the strengths (countervailing power) of more concentrated organisations. It is indispensable for them to know the possibilities of the different forms of vertical co-ordination and integration in their sector. Marketing co-operatives and producers' organisations also can solve the marketing problems of the fruit and vegetable producers, in a growing number.

### **1.2. Main aim of the case study and methods employed**

In this case study, we examine the integration role of Mórakert Purchasing and Service Co-operative, in Mórahalom in county Csongrád which can be found in the southern east part of Hungary. The Mórakert co-operative active in the fruit and vegetable sector and it was the first officially acknowledged Producers' Organisation (PO) in Hungary. It works as a very successful co-operative (e.g. in terms of increasing annual turnover and membership) thus being a good example for a number of emerging producer organisations.

During the case study research 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, we studied recent EU and Hungarian legislation concerning the fruit and vegetable sector or co-operatives/producers' organisations. Third, interviews of major players, e.g. with President of the Board, Managing Director etc. have been conducted.

## **2 THE REGULATION OF THE FRUIT AND VEGETABLE SECTOR IN THE EU AND HUNGARY REGARDING POS**

There is a great significance of different (marketing) organisation of agricultural producers in the agri-food economy of European Union, like agricultural co-operatives and Producers' Organisations (PO), which are active in the fruit and vegetable sector. POs exist in other legal forms as well, like joint stock companies, LTDs etc., they have to only 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.

The Hungarian regulation (25/1999 Decree of Ministry of Agriculture and Rural Development) takes over the European Union's one [Regulation (EC) No 2200/96 on the common organisation of the market in fruit and vegetables] concerning POs. According to the above mentioned decree, the POs (in the Hungarian regulation the abbreviation is: "TÉSZ") organise production; store, grade, process and market products and are set up by producers of a certain product or (sub)region.

The process of establishment of POs is rather slow in Hungary so far. In 1999, which is the year when 25/1999 Decree of Ministry of Agriculture and Rural Development was come into force, only one, in the year 2000 only three (among them the Mórakert co-op) and in 2001 only eight organisations were provisionally acknowledged according to the above decree (PADISÁK 2001/2002). In August 2003, the number of provisionally acknowledged organisations was 36, and only one was officially acknowledged (certified): the Mórakert Co-operative, which will be our first case study in the next section of present paper (MÓRAKERT 2003). At the end of April 2004, there were 86 provisionally acknowledged and 6 officially acknowledged POs which covered 10 per cent of the total Hungarian fruit and vegetable production. The POs marketed products of members in value 21 billion HUF (NÉMETH 2004). In May 2006 there were 7 officially acknowledged POs and 62 provisionally acknowledged POs in Hungary. The number of POs is around 55 in 2007, which means fluctuation in the actual numbers of POs.

## **3 THE DEVELOPMENT OF MÓRAKERT CO-OPERATIVE**

Mórahalom is a small town 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. The quality of the soil is very poor. The sowing structure was developed under extreme climatic conditions. Mórahalom is the most important production centre of the South-Danubian Region. In some parts of the arable lands smallholders produce crops (maize, wheat etc.), which serve mainly as animal feeds for their own livestock. Climate and soil conditions are in favour for producing vegetables and fruits assuring the flavour and taste of the various products. The most important plants are vegetables: tomato, green pepper, delicate and hot paprika, various types of cabbage, onion and potato. These constitute the basis of commodity production, as the greater portion is usually sold on different markets, as will be discussed later in present study. Plastic tunnels and greenhouses now cover significant proportion of the cultivated land.

Before 1990 in Mórahalom there was a traditional production type co-operative which in the 1960s changed its form into that of a so-called specialized agricultural co-operative, bearing more of the characteristics of the western-type promotional co-operative. This type was more suitable for individual farming, particularly in labour-intensive branches of agriculture such as vegetables and fruit. This specialized co-operative ceased its activity in accordance with the

obligations incorporated into Laws I and II on Co-operatives (Transition and Unified Co-operative Laws) which came into force in 1992; the co-operative became defunct without a legal successor.

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. 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 for establishing a co-operative was very similar to the Danish tradition: economic necessity, arising from the economic and market situation at the beginning of the 1990s. Therefore, as usually used to be the first step in the co-operative development, an organisation was established to build up countervailing power, help the farmers with information and strengthening their negotiation power contrary to retailing and processing industries.

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 help of the local authority and mayor Zoltán NÓGRÁDI, who had taken the idea of setting up a new type of (marketing) co-operative from his study tour in Denmark, was invaluable in creating a new organisation of agricultural producers.

Table 1 shows the main data on the case study co-operative concerning years 1998-2005. Mórakert co-operative activity based mainly on agriculture, its share in total revenue was close to 100 percent, but last two years this ratio started to decrease. All measure of co-operative show a very attractive growth: agricultural and total net revenue increased by more than 20 times in nominal term, whilst the number of partners and also increased by more than 11 and 3 times, respectively.

**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	Turn-over (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

## 4 THE ROLE OF MÓRAKERT CO-OPERATIVE IN THE FRUIT AND VEGETABLE SUPPLY CHAIN

### 4.1 Main products sold and channels used by Mórakert co-operative

The Mórakert co-operative is a strong marketing implement for its members and also has a radiation effect on the regions it works. The Mórakert PO helps their members and non-member producers to be able to sell their fruit and vegetable produce at the best possible price. After collecting product from members and non-members the co-op carries out activities which can increase the value added, such as selecting-sorting, packaging, storing.

Table 2 summarises the volume and value of the main products sold by the Mórakert co-operative from 2003 till 2005. Potato has got the highest share regarding the value (22.34% - 2003, 20.04 - 2004, 08.81 – 2005) and also the volume (33.31%- 2003, 35.6 - 2004, 22.59 – 2005) among the products sold by the Mórakert co-operative. The share in value and volumes are different since the potato is a heavy bulk product with relatively cheaper price therefore its value/tonnes ration is less compared to the other products sold by the Mórakert co-op. However it can be seen that the share of the potato decreased from 2004 significantly. One of reasons behind the fact is that the potato is sold through a co-operative (“Homoki Rózsa Burgonya Termelői Értékesítő Szövetkezet”), which is an other producer-owned organisation in Mórahalom, in order to be able to avoid problems of getting support as a PO. Since the potato does not count as a vegetable (e.g. it is not a PO plant), its share lowering the necessary share of the vegetables has to be sold by the co-op to be able to be acknowledged as a PO. It also worth to point out that the diversification of assortment in 2005 which is responsible of the relatively high share (41.7%- 2005) of other products compared to the traditionally main products in the total value and volume sold.

**Table 2: The volume and value of the main products sold by the Mórakert co-operative in the years 2003-2005**

Product	2003	2004	2005
---------	------	------	------

	Volume (t)	Value (HUF)	Volume (t)	Value (HUF)	Volume (t)	Value (HUF)
Tomato	3 151	399 629	4 120	809 871	4 210	1 031 226
Paprika	7 864	811 699	10 245	1 240 410	3 929	766 334
Lettuce	828	163 987	933	193 033	1 391	283 966
Carrot	2 772	167 229	3 972	235 751	3 299	305 225
Potato	10 114	813 089	13 722	817 222	8 424	455 398
Parsley	1 442	331 275	1 326	196 366	646	167 845
Others:	4 188	952 186	4 223	585 989	15 395	2 156 386
Total	30,359	3,639,094	38,541	4,078,642	37,288	5,166,380

Source: Mórakert Co-operative, 2006

The co-op use various marketing channels from individual shopkeepers through wholesale markets to retail chain networks. The importance and share of the retail chain networks is increasing year by year. It is very difficult to achieve a foothold in one of the chains, but such a foothold is a secure position if the co-operative can deliver the entire range of produce to the network, while also guaranteeing top quality and a high degree of flexibility. About 90 per cent of the products 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.). 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 (RÁCZ 2006b). They have also opened two shops in Mórahalom (2006) and in the centre of Szeged (2007) At present, wholesale markets are avoided where possible; in order to shorten the marketing chain, therefore reduce transaction costs..

As mentioned above, retail chains have significant shares in the Mórakert co-operative trade. 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 fulfill 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 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.

Retail chains can be sorted into 3 main groups in Hungary. The first group (e.g. TESCO, Auchan and CORA) belong to the hypermarket type of chains. They have the biggest stores per m<sup>2</sup>, with a huge assortment mostly consisting from pre-packaged products. TESCO has established a central logistic centre, so products have to be transport to the centre instead of delivering it to the individual stores. It is different from the everyday practice concerning the requirements of other clients (RÁCZ 2006b).

The second chain group is the supermarket one (e.g. SPAR, MATCH) with higher prices. There are more shops belonging to each of the chains of that type and they are situated in many parts of settlements, including in the centre, thus they are “closer” to the consumers. Both of the above mentioned chains have their central logistics organization.

The third type of chains is the discount ones. Mórakert Co-op supplies Plus, Penny Market and Profi stores. These types of shop are smaller measuring their size in m<sup>2</sup> and often use discount prices, however their assortment is smaller compared to above mentioned ones.

## **4.2 Contract requirements of retail chains regarding logistics**

Requirements regarding logistics are gaining more and more place in the contracts with the retail chains. Appendices of the contract contain the general trading criteria (rebates, benefits, discounts, bonuses etc.) as well as requirements concerning logistics (methods, deadlines, confirmation of placing orders etc.). The contract contains information regarding the product (quality, period of keeping the same quality, traceability etc.), transport (frequency, refrigeration etc.), methods and units of packaging and the form of communication (fax, e-mail, EDI etc.) The chains continuously measure the activity of the supplier by the help a complex indicator which fact underlines the significance of logistics processes taking place among the companies not just in the individual enterprise (HUSZTA 2005).

It is also a general requirement that a whole assortment has to be delivered into each of the chains; as well the continuity of each product has to be secured. For example, in certain period of the year Mórakert Co-op has to import Spanish paprika, which type of product—after packaging - will supplement its own assortment.

Regarding to the cost of supplying and delivering, hypermarkets are more expensive. They use a great deal of different bonuses, like allowances regarding turnover, contribution to marketing and advertisement costs, cost of quality control and listing of products etc. which they charge to the suppliers.

The prices of the products are more or less the same in the case of the different chains; however individual advantages can be gained through negotiation based on the countervailing power of the suppliers. So the basis of the competition is the bargaining process. In case, some of the competitors are not able to meet the requirements of the chains regarding quality, assortment, traceability etc. then the others have got a competitive advantage and growing market share at least temporarily (RÁCZ 2006b). In sum, the co-operative is endeavoring to achieve competitiveness on highly changeable markets.

## **4.3 The significance of contracts between members and the co-operative**

The co-operative is willing, in the interest of its members, to display and market their produce. To achieve competitiveness, in certain cases the co-operative works on the basis of so-termed production type of contracts, which involve the co-operative detailing the requirements for the producer to ensure that the necessary quantity is produced. Main elements of the contracts are differ in case of different products, but generally contains the name and code (which is alternate regarding members and non-members) of the producers, the quantity and value of input supplied by the co-op, the species produced, the pacing of harvesting and the quantity. Quality requirements are also very important parts of the contracts. Members, who supplied between 90% and 110% of the contracted quantity in the contracting period, get a bonus of 2%. There are also penalties regarding to potential opportunistic activity of members. Members can alter from the contracting quantity to both directions by 10% without any consequences.

This information on one hand help the farmer in his discipline of providing data and helping them in adjusting to the requirements of EU, on the other hand provide useful information for an integrated controlling system. These contracts are the bases for the managing director in the yearly negotiation processes with the retail chain.



Efforts are always made to purchase input materials of the same type, to enable members to accomplish excellent, balanced quality in their production. The co-operative also deals with produce derived from non-members through an Ltd. called Mórakert TÉSZ Kft., in the interest of achieving better exploitation of its capacity. Very important advantage of being a member to get a contract, since non-members only called in case if the members can not supply the quantity and variety of products needed.

#### **4.4 Branding and quality assurance programmes**

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

One of the main steps to improve the competitiveness on segmented markets is for the co-operative to differentiate its products from those of other producers. The co-operative sells potato, onion, tomato etc. in different packaging bearing its name, which makes it easier for the consumer to remember and recognize its produce. The co-operative marks the onion, potato and pepper it sells with its own label, and is now attempting to increase the range of products sold in packaging showing its name.

Bar codes are also used, and a registration system developed to enable the co-operative to control its selling parameters on computer. The system allows those operating it to distinguish which member's vegetables are being sold to a specific market, and therefore the farmer can be tracked down if problems arise. The traceability gains more and more importance registering EU number, product codes etc. Regarding business practice and according to legal regulations as well, it is natural in case of every product which is sold by Mórakert Co-op that traceability has to be provided according to each producer (RÁCZ, 2006b). The co-op distinguishes its member and non-member suppliers with the code SE and SE on the contract and also when purchasing the products. Enterprise Resource Planning System (ERP) is the next step to be able to control all processes in a more integrated way.

The co-operative has been recently (in 2006) awarded of the Agri-food Economy Quality Award granted by the Minister for Agriculture and Rural Development of Hungary.

Generally speaking in case of quality assurance there are national and EU legal regulation and standards. The co-op employs HACCP quality assurance system through its HACCP team and 192 producers belonged to the EUREPGAP system as well in 2006 (RÁCZ 2007, HALÁPI 2007). HACCP is legal obligation; EUREPGAP is mainly used because of market pressure since in a number of cases it is part of the requirements of delivery set up by the chains. As mentioned above prices are very similar, however if some organization can not meet the conditions e.g. quality assurance the others will gain some more market share. TESCO has a different system called BRC which is an English one contrary to the German EUREPGAP. All chains use almost the same set of conditions and terms, but TESCO has written them down. They also use experts specialized on the technology of vegetables as well as fruits guiding suppliers on uses of pesticides, production technology etc.(RÁCZ, 2006b). This kind of attitude is a characteristic of an attempt to closer vertical co-ordination applying strict chain management.

#### **4.5 New marketing strategies: increase of export and further integration**

To be able to increase the value of the members' products, the co-operative seeks opportunity for export. 80 percent of the produce purchased from members is sold on the domestic market and 20 percent abroad (Estonia, Latvia, Lithuania, The Czech Republic, Slovakia, Slovenia). The co-operative is attempting to increase the proportion of export sales, but it presently uses exporters to sell its produce abroad. However, the aim is to export as part of co-operative activity.

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. 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<sup>2</sup> 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<sup>2</sup> storage facility. In June 2006 the co-op use 15,000 m<sup>2</sup> and 6 hectares in Mórahalom, which is a significant increase from the start. Facilities are fitted with modern sorting and packaging line, qualifying 20% 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.

Increasing consumer demand concentration in retail chains has to be answer from the supplier side as well. There are two stages of the trendy process, namely fewer supplier delivers more products as well as the notion of networking. These processes attempt to restrict the severity of the competition and also to get into and stay in the stable supplier circle of the chains. It is necessary to state that - with the co-operation of POs - strategic alliances appear in which they work together in the field of purchasing, marketing and logistics. Above the decreasing transaction e.g. transportation costs these types of concentration helps to establish and secure trust among partners which can lead to set up of subsector networking and clusters (HUSZTA 2005).

The co-operative tries to involve more segments of the chain and also extending its membership (750 owner - members in 2007) and circle of suppliers. The non-member trade is a question of importance in the case a PO since majority of the trade has to be done with members. In order to be able to fulfill 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 (through the managing director) is the one who is in contact with consumers. 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.

To be able to strengthen intrafirm collaboration and networking, they established a secondary level organization as a founding member of a joint stock company named DATÉSZ Dél-Alföld Rt. The company is a good means to increase the competitiveness of the collaborating firms which are themselves leading enterprises of the South-Danubian region. They have also

set up a joint venture called DALZA Hungária Kft. with an other big Hungarian PO in order to facilitate joint export activities.

The PO is a founding member of a national association called HANGYA Cooperation of Hungarian Acquisition, Merchandise and Service Associations/Co-operatives. The ambitious plan is to establish a so called secondary or regional type co-operative which can be a good institution to secure markets for the members, to increase product's prices and in the meantime to reduce transaction costs. The co-op is a founding member of the South-Great Plain Co-operative Foundation which is a professional representative body aiming to help the work of the co-operatives in the region.

## **5 SERVICES AND INTEGRATION OF SMALL AND MEDIUM SIZED FARMS**

### **5.1 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 fulfill 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 to purchase in the by-laws of the co-operative, increased from HUF 25,000 (1995) to HUF 180,000 (2006). The above mentioned contribution is only partly enough for providing financial support needed for the development described above. The 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-law. There is also an amount of 4.1 per cent of the turnover which has to be paid or is hold back as a contribution to the operating costs of the PO.

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 1996-2002 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.

## **5.2 Services and integration: decreasing transaction costs**

There are numbers of ways, which the Mórakert co-operative can decrease transaction costs. In line with purchasing input materials and to selling vegetable and fruit products produced by the members the co-operative is still endeavoring 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.

Providing information is also very important with respect to the success of the co-operation between the co-operative enterprise and its members. Members can obtain information from a published circular, which provides practical details such as when and how input materials ordered can be delivered.

In the past, transport from and to the main sites of the co-operative was usually achieved through the services of transportation firms. The co-operative has already bought transport vehicles as well, but members have to transport their own produce and/or input materials from and to the sites of the co-operative. However, this is cheaper and easier than to transport produce to the wholesale market, thus lowering the transaction costs for the individual members.

The co-op carries out other services for the members, like providing consultation (advice) within various fields, such as plant cultivation, the filling in of application forms for subsidies, storage etc. Storage and especially cold storage is very useful since it can decrease of the seasonal effects of fruit and vegetable production. Similar to the practice of using contracts in the case of purchasing products from members, the co-op has got a type of contract used in case of storing of the products of the members. Connected to the importance of quality assurance (HACCP, EUREPGAP) mentioned above, in case of storing, members have to use consultation/advisement in order to ensure the best quality.

Inclusion in marketing and promotion materials of the products of the co-operative hence of members is also a service of great importance and significance.

## **5.3 Causes for exclusion from membership and integration**

Talking about factors regarding the potential exclusion of farmers, we have to mention only causes when a member has no willingness or can not fulfill the above listed criteria to be or remain member. For example, if they don't pay-in the membership fee, violate the ethics/rules of the co-operative stated in the bylaws, or do harm to the co-op, then their membership cease to exist. If their production possibilities change, then members can exit by themselves.

Contracting is also a very important issue when talking about exclusion. Members can alter from the contracting quantity concerning given year to both directions by 10 per cent without any consequences. It is necessary to state that the contracting discipline is very weak as generally in the sector, therefore the exclusion of a member because of the underachievement is very rare. There is also demand-driven market most of the times in case of fruit and vegetables, so very often they can not enforce contracts. The co-op gives as service of pre-financing some of the productions cost of the members who are contracted if they fulfil some criteria. Based on the date of previous year, the members had to deliver at least 80per cent of the quantity stated in the contract. They use these measures since the contracting discipline is very weak.

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. 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.

## **6 CONCLUSIONS**

Apart from lowering transaction/information costs the 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, lowering uncertainties and carry out activities with higher added value.

The Mórakert co-operative is a strong marketing implement for its members and also has a radiation effect on the regions it works. It 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. The increase of both membership and the turnover of the co-operative demonstrate that it is operating efficiently. This is due to the friendly approach of the local authority, the various sources of capital derived from funds for development, and above all, the human capital and resources within the co-operative.

The crucial issue for the future of co-operative is the loyalty of farmers to their co-op and the leaders of the co-operative, especially under uncertainties dominating in the Hungarian fruit and vegetable sector. We have to emphasize the roles the Chairman of Board of Directors and the Managing Director (positions filled by the same persons from the beginning), have in ensuring stability and trustworthiness for members. Probably, because of the organized trust and the excellent human factors in the Mórakert co-operative the agency problem is not really significant at this level of development.

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 could arise free-rider problems. 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. To be able to solve potential horizon problems, the co-op uses a newsletter for disseminating information, they organize "professional evenings" for members, are currently developing a text message system providing short information for members, and currently they are also developing a website.

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 can face with the same problems emerged in the case of traditional (countervailing power) co-operative model and can influence and change the marketing, financial and possibly the organizational strategies of the co-operative (SZABÓ 2002).

## **ACKNOWLEDGEMENTS**

Different parts of the research were supported by Hungarian Scientific Research Fund, OTKA (Project No. K68467 and No. T048779), Regoverning Markets Project Phase 2 and Bolyai Janos Research Scholarship. Authors are grateful to the management and staff of Mórakert Co-operative, particularly to Bernadett Halápi, Pál Hódi, János Pörneki, József Rác and Roland Huszta for their invaluable help.

## REFERENCES

- BAKUCS L. Z., FERTŐ. I., SZABÓ G. G. (2006): MÓRAKERT COOP: a successful case of linking small farmers to markets of horticultural products in Hungary, 2006. *Regoverning Markets Phase 2*, pp. 1-51.
- HUSZTA, R. (2005): A magyar zöldség-gyümölcs ágazat logisztikai problémái. *Logisztikai évkönyv 2005*. (in Hungarian)
- HUSZTA, R. (2006): Agrárlogisztika. Hogyan- és hogyan ne! *Tranzit*, 2006 január-február. (in Hungarian)
- NÉMETH, I. (2004). Tájékoztató a TÉSZ-ek helyzetéről Magyarországon (Press conference on the situation of POs in Hungary by the Minister of Agriculture and Rural Development). April 22, 2004. (Manuscript in Hungarian)
- MÓRAKERT (2003): Mórakert Beszerző, Értékesítő és Szolgáltató Szövetkezet. (Mórakert Purchasing, Marketing and Service Co-operative). Mórahalom, May 14, 2003. (Manuscript), 1-3.
- MÓRAKERT (without date): Mórakert Termelői Értékesítő Szövetkezet. Első Elismert TÉSZ. (Mórakert Producer Organization,. The first acknowledged P.O. in Hungary). Brochure.
- MÓRAKERT CO-OPERATIVE (2006): Main data on the development of Mórakert Producer Organization, Mórahalom. Mórahalom, June 2006. (Manuscript, in Hungarian).
- PADISÁK, G. (2001/2002). A friss zöldség és gyümölcs piacszabályozása az Európai Unióban. (Fresh fruit and vegetable regulation in the EU). 2001/2002.<http://web.f-m.hu/files/euintegracio/zoldsegyumolcs.pdf> (in Hungarian)
- RÁCZ, J. (2007a): Presentation delivered at the occasion of General Assembly of Mórakert Co-operative. 11 May 2007. (Power Point presentation in Hungarian)
- SZABÓ, G. G. (2002): A szövetkezeti vertikális integráció fejlődése az élelmiszer-gazdaságban (Development of Vertical Integration by Co-operatives in the Agri-food Economy). *Közgazdasági Szemle*, Vol. 49, No. 3, pp. 235-251.

## INTERVIEWS AND PERSONAL COMMUNICATIONS

- HALÁPI, B. (Quality assurance manager) (2007). Interview. July 2007.
- HÓDI, P. (President of Board of Directors) (2006). Interview. May 2006.
- HÓDI, P. (President of Board of Directors) (2007). Interview. July 2007.
- HUSZTA, R. (Developing manager) (2007). Interview. July 2007
- PÖRNEKI, J. (Logistics manager) (2007) Interview, July 2007
- RÁCZ, J. (Managing director) (2006a). Interview. May 2006.
- RÁCZ, J. (Managing director) (2006b). Interview. August 2006.
- RÁCZ, J. (Managing director) (2006b). Interview, July 2007