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*REASON OF SALE VIA CO-OPERATIVE FROM THE ASPECT OF
FARMERS IN CASE OF TWO PRODUCER ORGANIZATIONS IN THE
HUNGARIAN HORTICULTURE*

**POWODY SPRZEDAŻY PROWADZONEJ PRZEZ ROLNIKÓW ZA
POŚREDNICTWEM SPÓŁDZIELNI NA PRZYKŁADZIE DWÓCH
ORGANIZACJI PRODUCENTÓW OWOCÓW I WARZYW NA WĘGRZECH**

Key words: fruit and vegetable sector, producer organizations (POs), reason of sale

Słowa kluczowe: sektor owocowy i warzywny, organizacje produkcyjne, przyczyna sprzedaży

Abstract. In the European Union the Producer Organizations (POs) are the key instruments of the coordination of the farmers and the regulation of the fruit and vegetable sector. POs improve the bargaining power of their members against other participants of the product chain. POs decrease the production costs of farmers by common input material procurement and decrease the production risk by organization of sales. A PO is only able to fulfill its aims if its members after the admission remain in the PO, in one word the farmers sale their products via the PO. The paper investigates the reasons of sale via co-operative on the basis of surveys that were made at two Producer Organizations in the Hungarian horticultural sector. The results suggest that the acceptable quantity, the flexibility at delivery, trustworthiness and personal contacts inspire the co-operative members the best sale via PO. The payment speed and the existence of contract could be additional incentive factors. The price and counselling of PO are less important motivation factors.

Introduction

In Hungary the political and economic changes in the early 1990s resulted in a complete transformation of the structure of the agricultural sector. The earlier co-operatives and state farms were disbanded, and the resulting vacuum gave rise to a large number of privately-owned farms. As a consequence, the sector is characterised by structural problems, lack of sufficient capital, and low efficiency. The co-operation could be the solution for these privately-owned farms [Baranyai, Takács 2007]. The collaboration among farmers isn't able to materialize independently from the full system of food product chain. Inside the food product chain numerous stock producers, processors and trader companies operate. The competitive and efficient fulfilment of demands of consumers as well as the secure sale of products of farmers isn't possible without the co-ordination of the participants of the food product chain [Ernyei, Takácsné 2003].

Agriculture in transition countries is characterised by considerable uncertainty. In these countries the absence of enforceable contracts makes it difficult to set up any kind of vertical co-ordination. In addition, it creates severe barriers for price discovery, involving high transaction costs to co-ordinate market exchanges. In those sub sectors where a production contract does exist, agricultural producers face hold-up problems (e.g. delayed payment for delivered products or ex post price reduction by retailers). These phenomena are reinforced by the emergence of a modern retailing sector leading to serious problems for sub-sector dominated by fragmented and small-scale farms, as in case of the horticultural sector [Bakucs et al. 2008].

In the fruit and vegetable sector the POs that are founded by farmers are the key instrument of the co-ordination of farmers. The PO improves the bargain power of their members against other participants of product chain. The PO decreases the production costs of farmers by common input material procurement and decreases the production risk by organization of sales [Dudás 2007].

In the European Union the operation of the POs shows great variety. The basic aims and tasks are being realised variously in the different member countries. The first PO was established by Dutch farmers more than 100 years ago. The sizes and turnovers of the POs are very different. The annual good turnover could extend from 5-10 thousand tonnes to several 100 thousand tonnes as well as the number of the members from 5-10 persons to several thousands. After the EU expansion in the EU-25 the number of POs

increased (more than 1400), but the average production via POs decreased to 34% [Erdész, Padisák 2003]. The biggest PO of the EU is operating in Netherlands, its name is The Greenery. The Greenery provides balanced supply in all year in order to become the reliable supplier of the retailer chains. The Greenery delivers products in Dutch and world markets, too [Bijman, Hendrikse 2003].

In 2007 the Hungarian POs provided 16.5% of the fruit and vegetable turnover of Hungary that is half of the EU average. At the beginning of 2008 11 ultimate acknowledged POs and 47 preliminary acknowledged POs operated that co-ordinated more than 20 thousand farmers and almost 35 thousand fruit and vegetable cultivation area. The annual turnover of these POs exceeded the 43 billion HUF in 2007.

Similarly to Hungary (15.1%) the fruit and vegetable sector represents an important part inside total agricultural production in Poland (13.9%), too. Poland with the production of fruit that amounts to 3.2 million tonnes and vegetables that amounts to 5.2 tonnes is the fifth of the biggest producers in the European Union. In 2005 the number of Producer Groups and Producer Organizations was 32 (8 recognised POs and 24 Producer Groups with a status of preliminary recognition) [Strzebicka 2005].

The paper investigates the reasons of sale via co-operative on the basis of surveys that were made at two Producer Organisations in the Hungarian horticultural sector. At first, I present the main characteristic of ZÖLD-TERMÉK Co-operative (ultimate acknowledged PO since 21st January 2009), then I examine its membership's motivation of sale via the co-operative by a survey. Secondly, I compare the results of ZÖLD-TERMÉK Co-operative with the results of examination of Bakucs et al. [2008] who made a similar examination at MÓRAKERT Co-operative (the first ultimate acknowledged PO in Hungary).

Material and methods

I have examined the motivation factors of sale via co-operative of membership employed thirteen-item scale. The membership had to evaluate the statements by seven order scale (1 = not at all important, 7 = very important). The surveys were filled up in autumn 2008. The 99 members of ZÖLD-TERMÉK Co-operative received the survey forms in person or by post that were answered voluntarily and without name. 57 members sent back survey forms to the seat of the co-operative, thus the sample represents 57.5% of the membership. Almost every member of the basic population came from Csongrád County (89 members), besides 10 members came from Bács-Kiskun County. The members came from 17 settlements.

The answers of the members of ZÖLD-TERMÉK Co-operative have been examined by descriptive statistics. On the basis of arithmetic averages I have sorted the various sale factors through co-operative in descending order. After that I have made a comparison between the order of sale factors of ZÖLD-TERMÉK Co-operative and the order of sale factors of MÓRAKERT Co-operative. On the basis of common factors I have determined the most important factors of sale through co-operative of the farmers.

Results

The most important features of the ZÖLD-TERMÉK Co-operative

ZÖLD-TERMÉK Co-operative was established on 21st January 2003. The centre of the co-operative is found in Üllés in Csongrád County. Its most important products are the different kinds of capsicums (paprika), cabbages, tomatoes, potatoes and carrots. The products are being sold approximately in ratio 60-40% in the domestic and export markets. The members of co-operative produce annually 2100-2600 tonnes fruit and vegetable products on 150 hectares. The forcing technology (low protective cover, accessible protective cover with and without heating, glass house) determines the operation of the co-operative. Between 2004 and 2007 this type of production occupied 30-34% of the cultivated area, but ratio of quantity in 2007 exceeded the 73%. The ratio of membership's payment in case of forcing products has always exceeded the 77% since 2005. The annual turnover is two-times higher than in the beginning, it was approximately HUF 430 million in 2007.

The reason of sale via ZÖLD-TERMÉK Co-operative

The co-operative pays their members in cash promptly or with bank transfer in a few days after the members deliver their products to the co-operative. Thus the fast payment speed was the most important factor for selling via co-operative (6.33). The short payment deadline had got by 46% higher value than the price (4.33). The favourable effect of the personal contacts could come to fruition because of the size of the co-operative that was confirmed by second higher value (5.37).

The purchase of acceptance quantity of fruit and vegetables (5.25), trustworthiness (5.09) and flexibility at delivery (4.89) were also important factors. The counselling less motivates the members, only the ninth reason of sale via co-operative. This means that growing doesn't cause hardship for the farmers, but the security of sale does. Despite of this, 72% of the members uses regularly or occasionally this kind of service of the co-operative. From the standpoint of the co-operative counselling doesn't dispensable after all homogenous stock doesn't set up without the coordination of membership's production. 4.00 point for no other option indicates that members could partially have other selling possibilities but the other alternative probably couldn't sale all the products of the members. The members thought less true habituation in case of sale (3.81 point) in one word sale via co-operative is a conscious decision. According to the members' judgement the co-operative doesn't help enough in the input material finance (3.52) and it doesn't give price premium (3.04) for extra quality products, therefore these factors don't provide real motivation (Table 1). The co-operative procures for their members the input materials of growing (seed and seedlings, fertilizers, plant protection materials) by common purchase on lower price thereby decreases the growing costs.

Table 1. The reason of sale via ZÖLD-TERMÉK Co-operative

Ranking	Reason of sale	Mean	Standard deviation	Coefficient of variation	Number of respondents
1.	Payment speed	6.33	1.31	0.21	55
2.	Personal contact	5.37	1.70	0.32	54
3.	Acceptable quantity	5.25	1.51	0.29	55
4.	Trustworthiness (trust)	5.09	1.69	0.33	54
5.	Flexibility at delivery	4.89	1.49	0.30	55
6.	Co-operative deals with delivery	4.39	1.99	0.45	54
7.	Price	4.33	1.47	0.34	54
8.	Existence of contract	4.30	2.18	0.51	54
9.	Services, counselling	4.15	1.75	0.42	54
10.	No other option	4.00	1.87	0.47	53
11.	Habituation	3.81	1.75	0.46	54
12.	Input finance	3.52	2.15	0.61	54
13.	Price premium	3.04	1.74	0.57	53

Source: Survey made at ZÖLD-TERMÉK Co-operative, own compilation.

The Comparison of ZÖLD-TERMÉK Co-operative and MÓRAKERT Co-operative from the aspect of sale via co-operative

The results of ZÖLD-TERMÉK Co-operative were compared with the results of examination of Bakucs et al. [2008] at MÓRAKERT Co-operative (Table 2). The members of ZÖLD-TERMÉK Co-operative evaluated 92% higher the payment speed than the members of MÓRAKERT Co-operative. ZÖLD-TERMÉK Co-operative usually pays its members immediately contrary to MÓRAKERT Co-operative that uses often long-term payment deadlines. The members of ZÖLD-TERMÉK Co-operative evaluated the co-operative deals with delivery 60% higher, namely the average production size of the members of MÓRAKERT Co-operative is larger that is able to transport their products to further markets. The habituation shows 52% higher value at ZÖLD-TERMÉK Co-operative, in one word its members look for new sale possibilities less. According to the members of ZÖLD-TERMÉK Co-operative there are less other options in sale. The personal contact and the role of price got by 12% and 11% higher value at ZÖLD-TERMÉK Co-operative. There is only a little difference for MÓRAKERT Co-operative in case of the acceptance quantity, trustworthiness and flexibility at delivery. The existence of valid contracts got 18% higher value at MÓRAKERT Co-operative and the counselling was also more important by 10% for them.

The payment speed was the most important factor at ZÖLD-TERMÉK Co-operative, at the same time at MÓRAKERT Co-operative it reached only the ninth place. The second most important factor (personal contacts) at ZÖLD-TERMÉK Co-operative was only the fifth factor at MÓRAKERT Co-operative. The membership of MÓRAKERT Co-operative is motivated by the acceptable quantity and existence of contracts the best. The flexibility at delivery and trustworthiness shows similar values at both co-operatives. At MÓRAKERT Co-operative the members didn't rate the price premium, co-operative deals with delivery and habituation as such important factors.

Table 2. The comparison of reason of sale via co-operative

Reason of sale	Average of ZTC*	Average of MC**	Difference	ZTC*/MC**%	Ranking of ZTC*	Ranking of MC**
Payment speed	6.33	3.30	3.03	191.82	1.	9.
Personal contact	5.37	4.80	0.57	111.88	2.	5.
Acceptable quantity	5.25	5.30	-0.05	99.06	3.	1.
Trustworthiness (trust)	5.09	5.15	-0.06	98.83	4.	4.
Flexibility at delivery	4.89	5.20	-0.31	94.04	5.	3.
Co-operative deals with delivery	4.39	2.75	1.64	159.64	6.	12.
Price	4.33	3.90	0.43	111.03	7.	7.
Existence of contract	4.30	5.28	-0.98	81.44	8.	2.
Services, counselling	4.15	4.60	-0.45	90.22	9.	6.
No other option	4.00	3.25	0.75	123.08	10.	10.
Habituation	3.81	2.50	1.31	152.40	11.	13.
Input finance	3.52	3.35	0.17	105.07	12.	8.
Price premium	3.04	3.15	-0.11	96.51	13.	11.

* ZTC=ZÖLD-TERMÉK Co-operative ** MC=MÓRAKERT Co-operative.

Source: Survey made at ZÖLD-TERMÉK Co-operative, own compilation, Bakucs et al. [2008].

Table 3. The summary of reason of sale via co-operative

Reason of sale	Summarized average	Summarized value of rankings	Ranking of ZTC*	Ranking of MC**
Acceptable quantity	5.28	4	3.	1.
Trustworthiness (trust)	5.12	8	4.	4.
Personal contact	5.09	7	2.	5.
Flexibility at delivery	5.05	8	5.	3.
Payment speed	4.82	10	1.	9.
Existence of contract	4.79	10	8.	2.
Services, counselling	4.38	15	9.	6.
Price	4.12	14	7.	7.
No other option	3.63	20	10.	10.
Co-operative deals with delivery	3.57	18	6.	12.
Input finance	3.44	20	12.	8.
Habituation	3.16	24	11.	13.
Price premium	3.10	24	13.	11.

* ZTC=ZÖLD-TERMÉK Co-operative ** MC=MÓRAKERT Co-operative.

Source: Survey made at ZÖLD-TERMÉK Co-operative, own compilation, Bakucs et al. [2008].

On the basis of the results of the two co-operatives the average values of the different motivation factors were calculated, then I juxtaposed the summarized value of rankings. My goal was to find out the most important motivation factors of sale via PO. According to the results the acceptable quantity, the flexibility at delivery, trustworthiness and personal contacts inspire the co-operative members the best sale via PO. The payment speed and the existence of contract could be additional incentive factors. The price and counselling of PO are less important motivation factors (Table 3).

Conclusions

A PO is only able to fulfill its aims if their members after the admission remain in the PO, in one word the farmers sale their products via the PO. During the examination of motivation factors of sale via PO according to the results of ZÖLD-TERMÉK Co-operative and MÓRAKERT Co-operative I got the following conclusions: the acceptable quantity, the flexibility at delivery, trustworthiness and personal contacts inspire the co-operative members the best sale via PO. The payment speed and the existence of contract could be additional incentive factors. At ZÖLD-TERMÉK Co-operative the payment speed played the most important factor contrary to MÓRAKERT Co-operative, where it reached only the ninth place. In case of MÓRAKERT Co-operative the existence of contract was the second most important factor behind acceptable quantity. At ZÖLD-TERMÉK Co-operative the existence of contract was less important, it was only the eighth factor. The price and counselling of PO are less important motivation factors.

A PO is only able to give solution for those farmers, who are able to grow quality fruit and vegetable products on their own. The largest hardship of these farmers is the lack of security of sale. Therefore the most important task of a PO is to improve the security of sale as well as to build up new market relationships. The acceptable stock of quantity products is needed for the organisation of common sale. According to the results counselling less important factor for the members that means that they have the required experience and knowledge for growing. At the same time the PO can't fulfill the requirements of consumers without efficient counselling system and production coordination namely the market demands the keeping of strict environment protection and plant healthy rules as well as the department chains require the use of different kind of quality insurance systems. Therefore a PO has to co-ordinate the production phase of the farmers in order to harmonise the farmer supply and market demand.

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Streszczenie

W pracy analizowano przyczyny, dla których członkowie węgierskich grup producentów owoców i warzyw zdecydowali się na sprzedaż za pośrednictwem tego rodzaju dystrybucji.

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