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UNIVERSITY OF KAPOSVÁR
FACULTY OF ECONOMIC SCIENCES

Institute of Economics and Management
Department of Marketing and Quality Management

Head of Doctoral School:
DR. GYULA SZÉLES, Doctor of the Hungarian Academy of Sciences

Head of Research:
DR. habil. ZOLTÁN SZAKÁLY, Candidate in agricultural science

ECONOMIC AND MARKET CONNECTIONS OF PRODUCTION AND TRADE OF ORGANIC FOODS

Author:
VIKTÓRIA SZENTE

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1. PRELIMINARIES AND OBJECTIVES OF THE RESEARCH

In recent decades, the importance of *ecological farming as an environment friendly form of agriculture* increased. Its publicity and acceptance among population improved, market value of such products goes far higher than that of conventional ones and ever more people agree with promoting and subsidizing this form of production. It is an obvious and well traceable process both in the EU and in Hungary that agricultural mass production turns toward a more environment friendly way of production (KISSNÉ, 2000).

In the 20th century, the environment changed significantly. In the period after the WWII, the increasing population required more and more foods which were to be produced on a decreasing agricultural area (MADAS, 1985). There was a need for increasing yields which was achieved by using large amounts of artificial fertilizers and pesticides, particularly in the developed countries. Using chemicals resulted in environmental pollution, a change in climatic conditions and developing greenhouse effect.

In developed countries, famine is no problem any more. Contrary, on these continents (Europe, North America, East Asia) *overproduction rise problems*, and foods are not appreciated any more. Recent days, most consumers concentrate on quality foods. The several *food scandals* led to a trust crisis and there is a need for the production of pure, natural and healthy foods. This trend is the basis of organic farming which may be an alternative to mass production.

Due to its special characteristics, organic farming may play a role *in the development of rural life, improvement of its population keeping ability and attractiveness*. These factors are of great importance in the rural delevopment and environmental policy of the EU and Hungary (SARUDI, 2000).

The purpose of the thesis in no persuasion but a rational analysis which may facilitate the decisions for the actors of the product chain. Thus, farmers prefer environment friendly production, highly resistant and traditional varieties, processors manufacture foods using minimal processing technologies without food additives, retailers strive to fulfil the customers' individual requirements, while consumers choose high value, reliable and chemical-free products.

Our earlier researches revealed the backwardness and the development opportunities of the Hungarian organic food market. For this reason, we decided to continue the research, in order to analyze the complex product chain. During the surveys, participants were primarily approad from the point of view of their market functions, their effect on the consumption of organic foods (pull-strategy). As a direction, five main objectives were defined:

- Analysis of market opportunities of the producer sector and its correlations to the processing and retail.
- Special characteristics of organic food processing and its connections to the retail.
- Revealing the situation of the organic product retail in Hungary, analysis of the communication with consumers.
- Determination of the characteristics and groups of consumers of organic foods.
- Survey on the consumer preferences and their implementation in the marketing-strategy.

Results may be utilizable from theoretical and practical views as well through promoting organic food market in Hungary, by giving advises to producers and retailer at the first place. Thereby, recent research may contribute to the stability and development of the sector, thus facilitating the integration of the Hungarian agriculture into the environment conscious agriculture represented by most European countries. Results may help consumers, too by making them familiar with the conception of healthy nutrition and healthy life-style.

2. MATERIALS AND METHODS

The research was based on the two internationally acknowledged method of marketing survey, the so-called ecoscopic or secondary and the demoscopic or primary methods. Secondary research means collecting, organising, processing and analysing the data available from other published sources in a way that meets the objectives and approach of the research. Primary research provides data on the behaviour and opinion of the actors of the market directly by primary surveys (HAJDÚNÉ and LAKNER, 1999; KOTLER, 1999).

2.1. Applied methods of secondary research

Our secondary surveys dealt with tendencies of organic farming in the world and in Hungary. Organic production, processing, trade and consumption were studied and the influencing factors analyzed.

2.2. Applied methods of primary research

According to the modern interpretation of marketing, primary research can be divided into quantitative and qualitative researches. Due to the revealing function of qualitative research, it tries to get answer to the "why"-s, and to find the hidden intentions behind the behaviour of the actors of the market. These kinds of surveys provide directing results. The quantitative research results in quantitative answers for the research questions. Using these two methods together is an excellent way of getting complementing results.

2.2.1. Qualitative methods

To analyse the product line we judged necessary to study the behaviour every participants and to know their mind, their picture about the domestic organic market. For these reasons we applied professional depth interviews with organic producers, processors and traders.

Focus group interviews were suitable to reveal the consumers deeper attitude. Our aim was to get information on the *consumers' behaviour* towards organic foods and the problems. In the first group were the consumers of organic foods, in the other group can be found kind of consumers, who conscious do not ask for and do not consume organic foods.

2.2.2. Quantitative methods

To get information on consumer preferences, two interviews were carried out. Firstly we interviewed consumers country-wide about consumption and buying habits. The results reflect the opinion of domestic consumers about organic foods and give a progress report. Consumers of organic and reform shops mean a qualified segment whose preferences were, are and will be of the greatest importance on the market of organic foods. That is why we wanted to study their opinions.

The country-wide interview covered 500 people. The reason of using this large sample was that the subgroups organized by different background variables were suitable sized to get statistically reliable results.

The primary target was to draw a representative sample of the population. Out of the Hungarian *towns with more than 10000 inhabitants*, *31 towns were selected*. Due to the number of the sample, the gender and age structure of the population was uneven; therefore a *weighing factor was used to correct the differences*. Thus, the research *is representative regarding gender, region and age in the towns with more than 10000 inhabitants* and the structure of the sample is same as of the basic population regarding gender, region and age. In order to obtain reliable results, the chance for random selection was important to ensure, besides ensuring representative sampling. Therefore, so called *random walking* method was used; thus every family had the same chance to fall in the sample. Within the family, the so called "*birthday key*" was used to select the interviewed people.

We carried out interviews on the organic and reform shops and the organic market, where 105 consumer were asked. In the sample got people, who bought these days on the market places and declined to fill the questionnaire. The sampling presented discretionarily, so the sample is not representative and we can not ensure suddenness.

The research was based on so called "face to face interviews". Basically, the questionnaire contained closed questions. Data were processed with suitable mathematical-statistical software *SPSS for Windows 9*; which needed a previous coding of the answers. The distribution of the frequency of the data was calculated, and the relations of each variable to all the background variables were analysed *with crosstables*. Beside of basic statistics, significance analysis was done with Chi-square test; cluster and factor analysis as multivariable statistical tools were also used. To show the consumption frequency of organic foods, the indicator of annual frequency (SZAKÁLY Z., 1994) was used, which figure shows how many times is a product consumed per year.

3. RESULTS AND DISCUSSION

The main purpose of our research was the analysis of the complex product chain – producers, processors, retailers and consumers – of organic foods. For this reason, the research started with surveys on the producers' attitudes, then the opinions of processors and retailers were studied, and in the end consuming and buying habits were analysed.

3.1. Organic production in Hungary

Recent chapter was prepared using literature sources and two primary surveys among randomly chosen producers.

3.1.1 Production resources

Among the input factor elements of organic production, in this chapter the motives of production, the grown plants, and the situation regarding the degree of supply of land, labour force and devices are presented.

According to our surveys, the *producers' transition motives* are one of the most contradictory and most varying factors. A smaller part of the interviewed organic farmers started organic production for the commitment toward the environment and chemical free production while at the greater part of them the main motive was *gaining in profit.*

In Hungary, organic farming principally means *organic crop production*. Field plants for human nutrition has the highest share but feed growing seems to close up, too. In connection with the latter, *organic animal husbandry,* that was previously pushed into the background, started to develop, too. On the farms participating the survey, cereals, oil plants, papilionaceae, fruits were grown, and Hungarian Grey cattle, Racka sheep, Mangalica pig and goats were kept. Their production structure is usually designed on the base of *one main crop* letting other crops in only because of maintaining the obligatory crop rotation.

On the basis of *plant size* and *system of management* two types of the interviewed producers can be defined:

- About 40% of them farm 50 to 370 hectares growing crops at the first place, usually in the form of a partnership.
- On 1.5 to 49 hectares, production of vegetables and fruits, animal husbandry and small-scale farming is carried out, in the form of a family farm or in part-time as a cropper.

Each of the individual farmers had some agricultural education and/or experience. The management of the larger units mostly consists of experienced agricultural professionals so in the case of such enterprises the high quality human resource is extremely important. On all the farms seasonal labour force is commonly used for manual work.

In organic farming, *subsequent delivery of nutritiens* can be done using organic or inorganic materials. The most important problem is the lack of manure providing better efficiency.

3.1.2. Production structure, efficiency

Most farms in the sample chose regional and highly resistant breeds. Similarly, in the animal husbandry such breeds are kept which provide lower yields but are less susceptible to diseases. Lack of production contracts raises problems for many producers not only in keeping strict *crop rotation* but also in forming new culture spots each year, so the yield sometimes has to be sold as conventional product or as animal feed.

Regarding our research and references from the literature, yields have to be evaluated separately per species. Generally it can be stated that in organic farming yields are 10 to 30% lower compared to common agriculture. Expenses and incomes determine *efficiency* which can be represented in organic farming as shown in Fig. 1. In the figure, only those factors are listed which could be evaluated on the basis of depth interviews with the producers.

EXPENSES	**INCOMES**
Sowing-seed, stocker	Sales revenue (extra price)
Plant protection, animal health	Subsidies
Fertilization, feeding	Selling by-products
Labour force	Providing services
Machine works	
Control fees	

INCOMES – EXPENSES ⟹ EFFICIENCY

Figure 1: Elements determining the efficiency of organic production

Regarding the results from the survey of 2002-2003, farmers counted with a profit of 20 to 30%. As seen in the control survey, this profit decreased in the following years, many cases being lower than 20% in financial year 2004.

3.1.3. Characteristics of purchase

According to statistical data, *90-95%* of organic products produced in Hungary are *exported* (VARGA, 1998; A.GY.A., 2003; MOLNÁR and

MOKRY, 1999). It was also confirmed by the producers involved in the survey. Products are sold generally in one turn for Hungarian wholesalers, but at the time of the second survey, more producers sold their products to domestic processors. In most cases, however, these products were not sold on the Hungarian market, either. An exception can be the case of small-scale producers who sell the products directly for *local consumers*.

3.2. Processing of organic products

As a consequence of consumer demand, continuous product development and creativity, the *variety of organic foods is enlarging* in the developed countries. In addition to convenience goods, processed vegetables, baby foods, spices, pre-cooked and ready-to-eat meals, packed and quick-freezed products are available (www.biofach.de). Hungarian consumers can find a quite small variety (S. RÁDULY, 2000; FRÜHWALD, 2001; ORBÁNNÉ, 2003) which can be mainly attributed to the small number and volume of plants being suitable for manufacturing organic foods.

The purposes of our research included the economic and marketing analysis of processors as participants of the product chain. *As research method, expert depth interviews were chosen.* According to the results, manufacturers of organic foods can be divided into two groups:

- *Smaller enterprises engaged in production, processing and retail, which* fulfil domestic demand in the first place. Among the interviewed enterprises, one cereal processor, one vegetable processor and a smaller dairy belong to this group.
- *Enterprises engaged in only processing or retail*, which sell large amounts of products for mainly hyper- and supermarkets. They usually started to handle with organic products in addition to their conventional food industry activity.

Their areas of activity significantly influence their *purchasing strategy*. Of course, respondents processing their own raw materials had no complaints, while processors joining to the product chain in this section had serious problems. The seasonal availability, small amounts, low quality and small variety of raw materials make their activity more difficult. In addition, partners providing processed organic foods to the processors' own production, are often unreliable. *Cost-prices* are unanimously judged to be high, in several cases import products are cheaper. Only some processors have *contracts* with their producers. Similarly, *organizing integrations is not typical, either*.

Although most processors did not conduct market research at the beginning of their activity, they have well defined opinions regarding the *target group*. In their opinion, their costumers are city dwellers, sick persons, vegetarians or families with young children in the first place.

The interviewed processors provide a large variety of goods on the Hungarian market. In their supply there are about 1000 different products. Due to the higher cost-prises of raw materials and the higher processing cost, the selling at conventional prises is not possible. The difference in prices, however, was considered to be smaller than that of the unprocessed products. They usually used *markup pricing*.

Due to the seller's market, processors have *no problems about selling their products*. They was not forced to sell their products as conventional ones even at the beginning of their activities, their position for negotiation *against* retailers is favourable. Regardless the scale, *all processors sell to several distribution channels* at the same time. Among their buyers, wholesalers, organic- and reform shops, multinational chains, drugstores, or directly the consumers can be found.

The *communication strategy* of organic food processors focuses on the enterprise itself. They want to distinguish their products from the competitors by using well-sounding manufacturer names harmonizing with organic production. Among the *means of sales promotion*, most respondent considered participation in exhibition and fairs to be of great importance but printed media, leaflets and internet were also often mentioned. The proportion of *advertising expenditures* was lower than that of the conventional foods.

3.3. Selling characteristics and trade of organic foods

In Hungary, trade operations on organic foods are continued mostly with cereals and industrial crops. Earlier, target markets were mostly foreign countries, and business was settled by wholesalers. Today, an increasing amount of products reaches domestic consumers or processors. In addition, processors and producers-processors joined the trade business.

In our primarily surveys, certified traders selling for export and inland, were approached. Among sellers of organic foods, depth interviews with one or two representatives of the typical distribution channels (hypermarkets, drugstores, organic and reform shops, organic department stores) were conducted. Special stress was laid on selecting the most determinant enterprises of the organic sector.

Export-oriented wholesale trade of organic products

The wholesale trade of organic foods primarily means wholesale purchase, transport, eventually storage and purification of cereals and industrial crops, which are further sold to partners offering favourable prices

– mostly for foreign countries. A significant proportion of the Hungarian organic foods are marketed through this channel which makes its analysis important.

The *purchasing strategy* of these enterprises is determined by the fluctuant market opportunities. They aim to build up long-term partnerships with the producers, production organization, however, is realized in only few cases. They do not take unnecessary risk by building storage places or capital investment, but they procure products directly from the fields instead, which are further sold at once. *Price is determined* in accordance with the market conditions, regarding the point of view of the trader in most cases.

Sales strategy of the interviewed enterprises could also be characterized by export orientation, the target markets are Austrian, German, Dutch wholesalers or wholesale consumers. They do not want to advertise, the only mean of sales promotion is cultivating personal relationships.

Certified retail and wholesale of organic foods

Certified retail and wholesale of organic foods includes the following product chains:

- wholesale,
- mail order, market sale,
- catering.

In this part, the characteristics of these three distribution channels and the marketing-strategy of the interviewed enterprises are presented.

Wholesale: Recent years, a new type of wholesalers appeared aiming to supply the organic and reform shops and hyper- and supermarkets. Their economical and market importance is always increasing.

Their most important problems are the small domestic supply and purchasing possibilities. They are force to import products just because in Hungary, foods liked and demanded by the consumers are available only in a small variety and often low quality. Only one of these enterprises organizes production in order to get raw materials in an appropriate volume and better quality. However, none of them acts as integrator.

Similarly to the processors, wholesalers are well informed about their *target group*. In their opinion, their customers are health-conscious consumers demanding reliable and high-quality products. Most of them live in the capital but some of the dwell in several larger cities of Hungary. The main motive to choose organic products is not the production according to the principles of organic farming but the speciality and tastiness of foods.

In their supply, the *proportion of organic products* is very high. Besides organic trade, these enterprises are engaged in import, processing and distribution, too. Their *product strategy* can be further characterized by the large amount of foods with private labels. There are approx. 250 to 350 different products in their supply. Their *price strategy* cannot be characterized on the same principle; it varies according to the partner. In the *distribution strategy* hyper- and supermarkets have are of great importance. One of the interviewed wholesalers sells 60% of their products to multinational chains. This rate is much lower at the other company. The *communication strategy* is similar to that of the processors. As sales promotion they give special prices, organize tasting. Advertisements are published in newspapers and magazines as PR articles or reports in the first place.

Mail order, market sale: The *availability* of products was judged differently by the interviewed companies. One of them had a similar position to that of the processors and wholesalers, while the leader of the other enterprise stated that all products were available in Hungary although in small variety.

Target market is represented by wealthy, health-conscious consumers who can further be segmented on the base of mail order or market selling. In *product strategy*, they aim to develop as large variety as possible. One of them imports goods not available in Hungary, while the other company, properly, strives to organize processing of organic products. 100% of their supply derives from certified organic production. *Pricing* is done by common agreements with purchasing and selling partners. In direct consumer sales, they use markup pricing. In the centre of their communication strategy stands the way of selling. Advertisement is based on their own image, to which different marketing means are added.

Catering: Eco-restaurants and -hotels are very popular in Western European countries in which the menu consists of certified organic products. In addition, they not only try to make dishes in an environmental friendly way, but services and the furnishment of the hotel are made in accordance with the organic principles. There are some initiatives in some restaurants in Budapest, too, where organic menu is served besides usual foods. Their emphasized problems are the seasonal availability of the products and the small variety.

The subject having been asked to participate in the survey, was not ready to meet personally until the finishing this thesis and provided no written answers, either.

Sellers of organic foods

In addition to the certified retailers, another group can be separated which is engaged in selling organic foods fulfilling the increasing consumer demands. In addition to conventional foods, organic products appear is increasing volumes in their supply.

In our research, organic and reform shops (specialist shops), hyper- and supermarkets, and drugstores, herb shops were called on.

Organic and reform shops: The *motives* for the visited shops were the owner's and/or shop leader's commitment toward *chemical free* and often even vegetarian foods. In their *purchases* they aim to establish long-term partnerships, and maintain solid, trustful relationship with their well-tried contractors. All of the three shops have *established clienteles* including people of all age groups, mainly city-dwellers, local people for whom healthy nutrition is of importance.

It is characteristic for the *supply* of Hungarian organic and reform food shops that they mostly serve vegetarians and people suffering from food-intolerance, while the ecological origin of the product is of minor importance. In their *product strategy* they aim to build up as large variety as possible, in these shops approx. 300 to 500 different products can be found. In the *price strategy*, they try to align their prices with the wholesalers'. They use a defined markup which is influenced by the price accepted by the customers. The planning of the location of shops requires a well thought-out *channel strategy*. The places have to meet not only the food safety regulations but have be well approachable and have to provide parking places, too. *Communication* activity is mainly restricted to local, sometimes county media and leaflet is which consumers are informed about the shops and the most important available products. They consider PR articles and recommendations of alternative therapists but they count with the positive word-of-mouth advertisement, too.

Hyper- and supermarkets: During the research we an expert of a hypermarket was interviewed which probably provides the largest variety of organic foods in Hungary. The *target group* of the department-store is metropolitans in leading positions with high income and education; these consumers are the ones who demand organic foods in the first line.

For super- and hypermarkets the most important problem is the purchase of organic foods. Their contractors are unable to provide them the ordered quantity and to assure constant quality. In the *product strategy* they aim to build as large variety as possible, they sell approx. 200 different products. Similarly to the organic and reform shop, *markup pricing* is characteristics. In the *communication strategy* they concentrate on the means of in-store marketing in the first line. They try to attract the consumers' attention to the products with the location of products, decorated shelves and posters.

Drugstores, herb shops: In the survey a chain was approached in whose variety a lot of organic foods can be found. They sell several private labelled products, and they have an own private label product family, too. We were promised to respond in writing but unfortunately it was not received until finishing this thesis.

3.4. Consumer preferences on the market of organic foods

In this chapter the results obtained from the three surveys are presented. Firstly, the focus group interviews will be shown. Then results of the survey at organic and reform shops, and finally, the results of the country-wide questionnaire survey will be presented and discussed.

3.4.1. Results and discussion of qualitative market research

The participants of the focus groups could not distinguish the definitions organic, bio and eco. More of them noted that they are likely to be related to each other.

Our research included a question about the purchased products. Typically, the consumers of organic products consume primarily cereals on a regular basis. Self-supplying families eat organic vegetables in the first line. They buy some goat cheese, bread, soya fat and sausages from organic farming. Organic food is bought once in a month on the average. Even the members of the focus group consisting of people not consuming organic products eat organic food sometimes, but we can not speak about regularity. The primary reasons for the participants of the focus group to consume organic foods were that these aliments help maintain good health, prevent diseases and improve life and lifetime. The main reasons why focus group members do not buy organic food are the difficult availability, the high price and the unverifiable health affects.

3.4.2. Results and discussion of quantitative market research

<u>3.4.2.1. Knowledge of definition and main characteristics of organic foods</u>

Results of earlier surveys agree on the fact that one of the obstacles of the development of organic market are misconceptions about the definition and production methods.

In the country-wide survey, 57.4% of the respondents mentioned chemical-free nature in the first place; controlled, strictly regulated production, however, was not mentioned in any case. Results are shown in Figure 2.

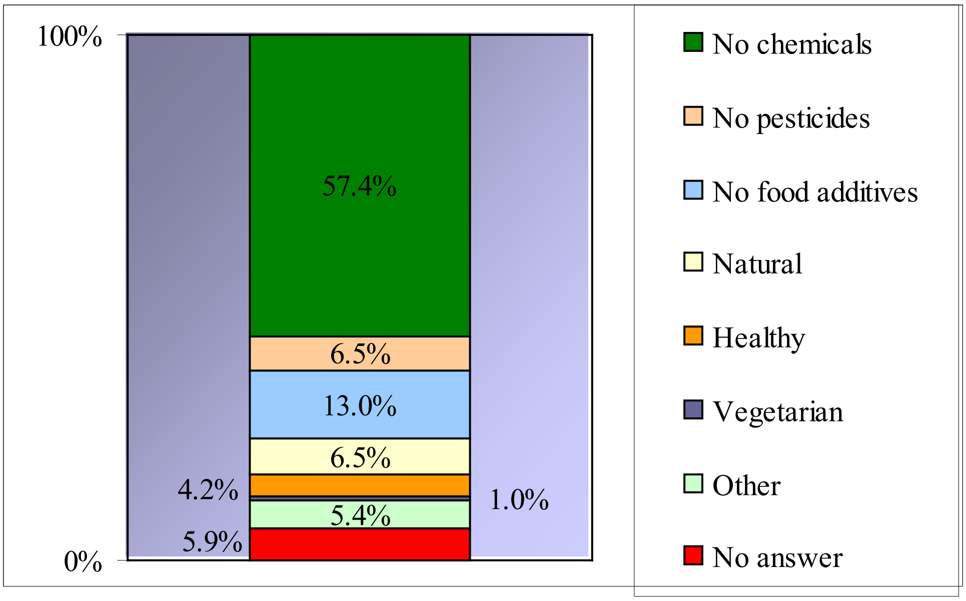

Figure 2: Determination of definition of organic foods (n=504)

Additive-free nature was also often mentioned, while about the same said that organic foods were natural and free of pesticides. Some people said that organic means were only vegetarian foods which statement is false. The results of the surveys show that consumers are familiar with the benefits of organic foods but they do not have a unified, general view. *The need for opinion-forming is not to be questioned.*

3.4.2.2. Purchase of organic foods

According to our survey, the buying of organic foods are high in Hungary. The country-wide questionnaire survey contained a filter question: whether or not the respondents have ever bought any organic foods. In the surveys at organic and reform shops and on the organic market we supposed that the customers had ever purchased organic foods.

The country-wide survey showed a favourable result as 59.8% of the respondents have ever bought some kind of organic products. On the basis of the demographic factors it can be stated that the organic consumers' group consists of young and middle-aged (mainly) women with secondary or tertiary education who may be a solid sales area due to their age and family situation. The higher the incomes are, the higher the number of organic consumers is.

Persons who have never bought any organic foods most often mentioned the following excuses: expensive (29.2%), not familiar (21.8%), not available (20.3%). Lack of interest was an important counter-argument, too, while own production influenced only 2.9% of the respondents.

Following the correlation between buying and not buying, the sort of the purchased products was asked about. Results are shown in Figure 3.

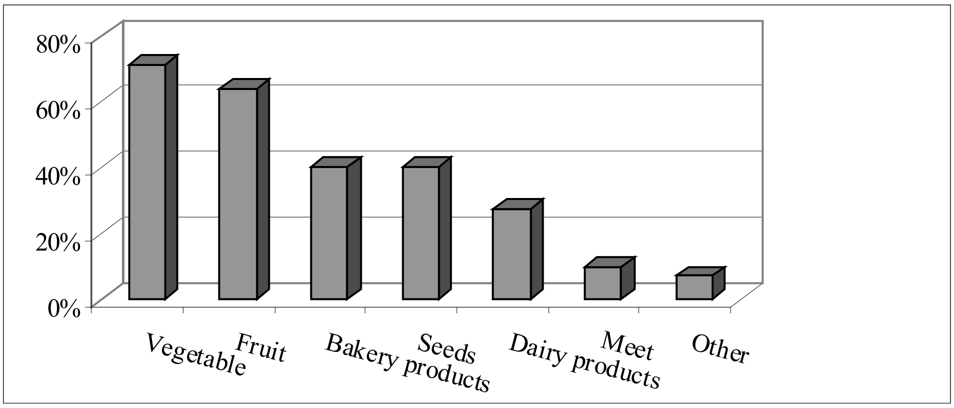

Figure 3: Purchased organic foods in Hungary (n=302)

Similarly to world tendencies and previous Hungarian data, vegetables and fruits were most often purchased. Their proportion of nearly 80% suggests that consumer needs are the most sophisticated at these two products. Only 40.1% of the respondents buy cereals, seeds and bakery products, the backwardness may be explained with the smaller variety and worse availability. Milk and dairy products representing the second-third place in European surveys get only the fifth position in Hungary. However, this group may be predicted to undergo the greatest development since organic milk produced and sold without an extra price in the European Union will be introduced to the new markets. Meat and meat products are bought at a very low frequency, however, these products can only seldom be found in shops. Among other products, organic baby foods, fruit juices, tea, wine, honey, cosmetics and seed-buds. The broad spectrum may be a promising sign of the continuously developing Hungarian organic market.

3.4.2.3. Purchasing channels of organic foods

Organic foods are available in several places. These distribution channels are the same as those of the conventional food markets, their judgment, however, may be put in another light.

Figure 3 shows the distribution of answers regarding places of purchase as obtained from the country-wide questionnaire survey.

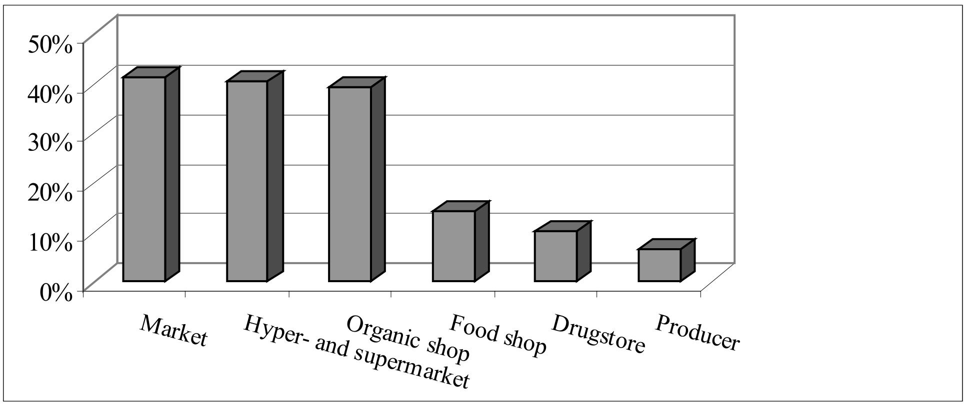

Figure 3: Purchasing channels of organic foods in Hungary (n=302)

Most consumers (41,4%) buy organic foods on *markets*. The high proportion of market sales may be attributed to the deficient knowledge on the definition and production conditions of organic foods. *Hyper- and supermarkets* are of almost the same importance, 40.7% of the respondents purchase organic products in these places. Due to their good availability and favourable prices, these retail chains will probably play a dominant role in the organic retail. *Organic and reform shops* are important, too, 39.4% of the interviewed people mentioned this channel. Among the other answers, *direct purchase from the producer* (6.6%) is to be stressed.

Consumers interviewed at organic and reform shop, however, provided completely different answers. Results are shown in Figure 4.

70.5% of the respondents mentioned organic shops but the proportion of this distribution channel was even higher since 19% of the people marked organic and reform shops *and* hyper-and supermarkets. This category was introduced because many respondents purchase organic foods from both sources. Markets, however, were mentioned by only 3.8% of the people, but it must be mentioned that there is no organic market in the city in which the survey was conducted and no organic prodders appear on the conventional market, either.

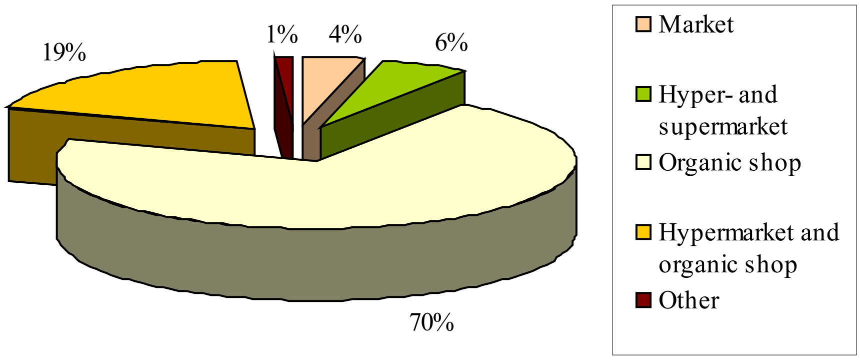

Figure 4: Purchasing channels of organic foods in the opinion of consumers of organic and reform shops (n=105)

Results suggest that the customers and organic and reform shops prefer the channels they are used to, in which the demanded organic foods are available in proper quantity and quality.

3.4.2.4. Consumption of organic foods

The customers of organic and reform shops consume organic foods regularly, there was only 7.6% of them who very seldom or never consume these products. According to the frequency index, organic foods are consumed in every 1.5 days.

In the *country-wide survey*, consumption habits of people who have ever bought organic foods were studied. According to the results, 98.3% of them have even tried organic products. The frequency is one consumption in every 4.1 days.

The questionnaire inquires about the consumption frequencies of certain organic foods, results are shown in Figure 5.

Organic *vegetables* were the most often consumed although *fruits* were eaten at a similar frequency. The high consumption frequency of *bakery products* and *cereal seeds* is promising and reflects the domestic supply since these are the products which are based on a more developed processing industry. At *dairy products* there is still no consumer group regularly consuming these foods. In earlier Hungarian surveys this product group had only a few consumers but now its demand increases dynamically. The backwardness of *meat and meat products* among organic foods can be attributed to the high proportion of vegetarians among organic consumers and to the hard availability of meat products caused by the low incidence of organic livestock farming.

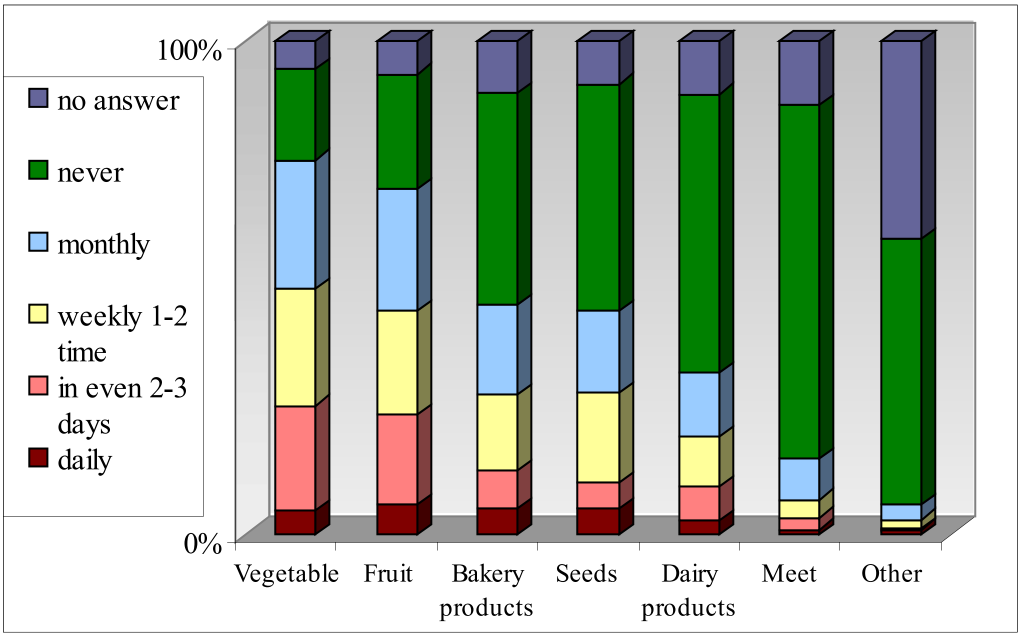

Figure 5: Consumption frequency of organic foods (n =297)

3.4.2.5. Consumer opinions about organic foods

In this chapter the major factors influencing consumer decisions are presented such *as price, tastiness, healthy nature, environmental protection, availability and guarantee*. Major values used in the analysis are shown in Table 1.

Table 1

Consumer opinions about organic foods

Statements	Mean	SD
1. Price of organic foods is higher than that of the conventional foods.	4.36	1.21
2. I would buy more organic foods even it was cheaper.	2.34	1.57
3. Organic foods taste better than conventional foods.	2.99	1.73
4. Organic foods are healthier than conventional foods.	4.27	1.24
5. By consuming organic foods I can do something for the environment.	3.71	1.48
6. Organic products are difficult to purchase.	3.76	1.43
7. At organic foods guarantee is very important.	4.03	1.48

The most uniform opinions being proved by the lowest standard destination (σ=1.21) showed up regarding the judgment of price of organic foods which was. On the second place healthy nature of organic foods can be found. Favourably, 61.25% of the respondents consider these certified foods to be healthier than conventional aliments. The most differentiated opinions (σ=1.73) were observed regarding tastiness. 25.7% of consumers judged organic foods more delicious while 6.5% of respondents disagreed. Therefore it is advisable to highlight the role of taste in the marketing strategy. 40.6% of respondents could be held to be price sensitive; they would probably increase their consumption frequency of organic foods if prices were lower. The availability of products can be named as the major obstacle to the consumption: only 5% of the respondents state that it is no problem to purchase organic foods.

3.4.2.6. Factors influencing the buying of foods

The expansion of organic products requires to determinate the product characteristics demanded by consumers. Therefore in the country-wide questionnaire it was inquired how consumers are influenced by product properties and effects when buying foods. People were asked to mark the importance of following factors in an interval scale where 1 means “No influence” and 5 means “Strong influence”. The means and standard destinations of answers are shown in Table 2.

Table 2

Factors influencing food purchase

Characteristics	**Mean**	**SD**
Taste of products	4.74	0.72
Quality of products	4.63	0.82
Price of products	4.35	0.96
Healthy nature of products	4.19	1.11
Easy availability of products	4.14	1.10
Purity, chemical-free nature of products	4.06	1.18
Brand of products	3.27	1.34
Confidence in salesmen	3.20	1.53
Advertisements about products	2.51	1.33

Among product advantages, respondents classified taste for the first place (4.72) which was followed by the quality while price stands only in the third place. Healthiness of foods which was mentioned by 4.2% of the respondents at the definition of organic products, occupies the fourth position followed by easy availability and chemical-free production. This suggests that despite the fact that 57.4% of respondents are aware of this benefit they take it into consideration only at the sixth place. Surprisingly, brand, confidence in salesmen and advertisements received the lowest marks.

3.4.2.7. Sorting the consumers by lifestyle variables using cluster- and factor analysis

The segmentation of the people interviewed was thought to be important in planning an effective marketing strategy and the advertisement targeting the consumers of organic foods. The country wide questionnaire contained *statements on lifestyle* in order to carry out the factor analysis. Based on the 12 variables applied – following a varimax rotation – four factors were definitely separated. After having done the cluster analysis with these factors, three clusters were defined that contained all the 504 interviewed consumers.

According to the data of Table 3 no significant differences can be observed among the clusters from the view of lifestyle variables. Similar factors were considered to be important in each groups but order and degree varied.

Table 3

The main characteristics of clusters by lifestyle variables

	A	**B**	**C**
Gender	male (70.2%)	mainly female (54.5%)	female (58.6%)
Age	between 26-40 (40.4%)	up to 56 (42.4%)	between 26-55 (60.0%)
Education	even distribution	primary	secondary and tertiary
Region	East-Hungary	West-Hungary	even distribution
Most important lifestyle factors	environment, children, sport	children, environment, market	environment, children, health
Most important factors when buying foods	taste, quality and price	taste, price and quality	taste, quality and price
Buying organic food	rather not (43.2%)	rather yes (57.6%)	yes (64.5%)
Major place for buying organic food	hyper- and supermarket	hyper- and supermarket	organic and reform shops
Their proportion	18.7%	6.3%	75.0%

All participants of the segments recognise the importance of environmental protection. They consider healthy nutrition of children to be vital. Even the less important factors are the same in many places.

From the point of view of the research, cluster „C" proved to be the most significant because primarily this cluster means the potential consumers of organic foods. Highly educated young and middle-aged women can be found in this group in the first line. In this cluster the importance of environment (4,89) and healthy nutrition of children (4,86) were judged with the highest marks. Healthy lifestyle was of the greatest importance for them as well. Among of the three groups in the cluster "C" has tastiness the greatest role. Choosing of foods is determinated further by quality, if possible, they choose certificated and reliable quality. Price falls behind these factors. Members of this cluster often buy in organic and reform shops.

Results of the research verified our zero hypothesis: consumer segments of organic foods have not been developed in Hungary yet. But some kind of references can be identified which are important for every people and can be implemented in the marketing-strategy.

4. CONCLUSIONS AND SUGGESTIONS

On the basis of the results of the secondary and primary surveys, the following statements and recommendations should be considered for actors of the organic sector:

- A major cause for the backwardness of domestic organic market is the *export-orientation of Hungarian producers*. Position of producers exporting to western markets is quite unfavorable even in this year because of the large quantities of grain products from competitive countries where organic prices are just a bit higher than conventional ones. A *possible opportunity can be the domestic sale of products*, but high prices, often low quality are not demanded by processors and wholesalers. It seems to be necessary to strengthen the integration process of producers, firstly in the fruit and vegetable sector. Ensuring *unified quality* and sufficient lots of products are basic elements of selling for hyper- and supermarket chains. According to our results, in the case of small scale farmers the opportunities cover *local processing* of products (housemade goods) and distributing through respective channels just as organic tourism, farm-gate-selling, mail order services. Confidence of consumers can be won primarily with exclusiveness and specificness of their farm and products.
- Our results show that animal keeping being vital in biological cycles has not built into the system yet. The necessity of animal keeping is not to be questioned because it means alternative for placing products of crop production. In default of animal keeping difficult to solve fertilization as well. Keeping traditional species is favourable (Hungarian Grey Cattle, Mangalicza Pig), their market is increased in Hungary and abroad by their hungaricum character.
- The position of Hungarian processors is commercially favourable but supply of raw materials is hindered because of unsuitable quantity and quality. Their product variety is locally wide but further expansion is needed. Due to the specific nature of the products they could achive a good position for negotiation against the trade. Production volumes and technological background, however, has to be improved in order to lessen the competitive disadvantage against import products. *As a future goal, purchasing reliable raw materials through the improvement of relationships between producers, production oization and integration can be defined*.
- In Hungary, the distribution channels of organic foods are similar to those of several West-European countries although they considerably fall

behind in turnover and variety. According our results, traders of organic foods can be classified into three groups. *Certified wholesale* procures raw materials (primarily the products of crop production) on a large scale and exports them. Their importance in the Hungarian organic farming is decreasing, through their connections, however, these companies may play a significant role in selling processed organic products. Certified retail and wholesale of organic foods is primarily interested in selling marketable goods. Their activity is often linked up with production and processing of organic products, thus it is less exposed to market effects. A considerable part of organic foods get to the consumer through *organic and reform shops, hyper- and supermarkets, drugstores and herb shops*. It is a generally typical that organic products make up only a fraction of their variety but it is reasonable to keep these foods in stock due to their diversifying role. High retail prices in these channels, however, do not favour to market development, the markup used significantly exceeds the risk taken. Therefore it is reasonable to approach consumer prices to those of the conventional foods.

The results of the research can contribute to the establishment of the marketing-strategy of the organic product chain, which is outlined by presenting the STP marketing and the marketing-mix.

Segmentation, target market selection, positioning: according to demographical and geographical criterions, major consumers of organic foods are educated, young or middle-aged women living in cities, as well represented by cluster C. Organic foods will probably never became mass products, their *niche market properties must be emphasized*. The increasing of market volume can be achieved by proper positioning of organic foods. Healthiness and chemical-free nature of organic foods are the major competitive advantages over the conventional products.

Product strategy: *Labelling of products derived from certified organic production creates a favourable market opportunity.* Since labelling is destined to ensure high quality, its importance cannot be questioned. Apart from some product groups, the variety of organic foods is quite low in Hungary. As a consequence of the changing consuming habits, the demand for *pre-cooked and ready-to-eat organic foods* is continuously increasing. The actual professional background of processors makes them suitable to manufacture such foods; the added value improves the *efficiency of the product chain*.

Pricing strategy: Considering the seller's market and the position of top quality, *prestige pricing* is reasonable. Pricing is done in a demand-oriented way, i.e. price has to be based on the value recognized by the consumers. Today, prices of organic foods often are 50 to 200% higher than those of the conventional products. Producers and traders do not adapt to domestic conditions, their pricing is based on the profit achievable in foreign countries instead. According to our results, the price sensitivity of the Hungarian consumers cannot tolerate this. It is desirable to reduce prices which is also urged by the market competition entailing with the EU accession.

Distribution strategy: Besides high prices, the main obstacle of the consumption of organic foods is difficult availability. Actual distribution channels fulfil the needs of different consumer segments; their variety is often specialized on certain product groups. Thus, in organic and reform shops, hypermarkets and drugstores processed products, long-life foods can be found in the first line, while at mail order and on the markets selling of vegetables and fruits is typical. A possible option to increase turnover is *keeping large assortments being suitable to fulfil individual needs, too*. In addition, organic foods have to be available in food shops with high turnover so that consumers can reach these products during their everyday shopping.

Communication strategy: The *low grade of communication and promotion* can be named as one of the weaknesses of organic food market. In our opinion, it is advisable to improve this activity in parallel with the increasing product volumes. Buyer's market makes the actors of the product chain indolent which involves danger in terms of import products even in short term. Our results prove that consumers do not know what organic foods mean and what characteristics these products have. People are not aware of the health benefits and distribution channels of these products, either; they are only informed about their high prices. *As a major task, informing consumers about the definition and thus the benefits of organic foods can be named* which requires the support of community marketing similarly to other countries. Means of education and PR may also facilitate the sale of organic foods.

In order to win the consumers' faith, co-operation among all actors of the product chain and governmental organizations is needed.

5. NEW SCIENTIFIC RESULTS AND FINDINGS

(1) Complex economical and marketing analysis of the actors of organic product chain using home and international literatures and own researches. There are literatures about social and economical aspects of organic farming, about regulation and subvention. The Hungarian institutions, the trade-marking system, structure of the production and the purchase, the processing, the trade are introduced as well. At least the economical aspects of consume was analysed.

(2) Consequent performance of vertical analysing because the competition runs on the market of agrobusiness.

(3) Research of consumer value- and preferences in addition to organic products. Determination of possible target groups of consumers using bi- and multivariate mathematical-statistical methods. Establishing a possible marketing-strategy for the organic food chain drawing up recommendations being practically utilizable for each actor.

6. PUBLICATIONS IN THE FIELD OF THE THESIS

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