

PhD THESIS

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MARKETING STRATEGY AND CONSUMER BEHAVIOUR IN CASE OF GOAT MILK PRODUCTS

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Kaposvár
2005

1. PRELIMINARIES AND OBJECTIVES OF THE RESEARCH

Healthy nutrition and health protection of the Hungarian population starts with the production of healthy food. Out of these, one of the most important is milk; its consumption has significantly dropped since a peak in year 1987 (SZAKÁLY S., 2001). In the recent years, different critical opinions were formed and published on milk despite of the fact that it used to be the basic food of billions of people for thousands of years and became healthy adults (KUKOVICS, 2002a). The current dissertation deals with goat milk and goat milk products that was forgotten long before, and have been recently revealed.

To the east from Hungary, in the Balkan states, goat is a basic source of food, while in Western Europe, the goat milk products are *luxury consumer good*. Today, goat milk products are available for only a narrow social layer (MARTICSEK et al, 1999).

With the change of the consumption tendencies (TÖRŐCSIK, 2003) new demands appeared on the world market; the *demand for special food is increasing*. A layer of the consumers has appeared that is willing to pay for quality, speciality; and goat milk products meet these requirements (LUKÁCS, 1999). In Hungary, goat farming stayed in foreground until the end of the 90ies. In that time however, a demand for so called alternative products appeared which satisfy the requirements of healthy nutrition. In the beginning, imported product supply met the domestic demands, as neither the Hungarian goat herd nor the produced goat milk products were competitive with imported goods. The domestic products did not meet the market requirements either in quantity or in quality parameters (MARTICSEK et al, 1999); however, due to the results of the efforts done in the last decades, the goat milk and milk products produced by Hungarian farms fully satisfy the domestic demands.

The European Union does not limit the development of the sector; as goat milk products are not quoted, and there is not a quantity limit defined only quality minimums. Thus, it is free to increase production and also the demand for the products is reliant. The consumer side of the domestic market is unsaturated, as the consumption is extremely low: 300 to 500 grams of sheep products per year per capita; and it is much lower in case of goat milk products (LUKÁCS, 2002).

In year 1999, the Hungarian strategy of agricultural and rural development stated that animal production has to be improved in order to meet a double aim: to supply the domestic consumers, and to increase the export. Basically, not the mass production but the quality production should be prioritised (MUCSI, TÓTH and BÉKÉSI, 1999). Goat sector is fully insertable into this strategy.

In Hungary, more attention is paid to the opportunities of the goat sector. The small ruminants could play great role in the issues of *environmental protection, sustainable development and in maintaining the population and in improving the export-import balance*; because it provides products that are 100 percent exportable, a layer of the consumers is willing to pay for and are sold to a real demand market (DÓZSA and MOLNÁR, 2004). It is also reasonable to develop the goat sector, because its role is significant *in the employment and in maintaining the rural population*, as labour demanding technologies can be applied here. These features are similar to the principles of environment management and are supported by the EU as well.

The increasing interest in goat and its products has made the research team pay attention to this issue and resulted in the start of the survey.

Three main objectives were defined:

➤ **To map the goat milk product chain, to analyse it from marketing side**

In the end of the 90ies, the goat sector was seen in its starting point. Thus the primary aims were to get information on the actors of the sector and their opinions and to reveal their challenges and answer the most important questions by primary and secondary researches.

➤ **To reveal the consumers' behaviour on the market of the goat milk products**

The aim was to get information on the consumers' preferences for goat milk products. The task was to test the market reception of the MTKI's products, and the novel products to be developed were in our interest.

➤ **To draw up the basis of the marketing strategy of the sector**

Based on the results of the first two aims, the opportunity was given to draw up the basis of the marketing strategy of the sector, which helps to implement the results of the survey in practice; the information obtained on the consumers' opinion is useful for the actors of the sector in the near and the far future.

The answers given during the research can be useful information for the marketing specialist of the food, especially goat milk sector to define the consumers' demands and differentiate the consumer segments and work out detailed marketing strategy. We believe that the results obtained are also useful for the common marketing organisations in developing effective marketing campaigns in order to improve the nutritional knowledge of the Hungarian consumers successfully.

2. MATERIAL AND METHOD

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 (HAJDÚ and LAKNER, 1999). Primary research provides data on the behaviour and opinion of the actors of the market directly by primary surveys.

2.1. Applied methods of secondary research

The ecoscopic surveys dealt with organising and processing the data and figures of the international and Hungarian goat sector. Especially the main *consumption tendencies* and *nutritional role of the goat milk and goat milk products* were in focus. Besides the figures, a significant part of the international and Hungarian literature was collected and organised as well.

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

Out of the quantitative marketing research methods, *professional deep interviews* and *focus group interviews* were applied. Deep interviews were made with the leaders bearing decision making roles of the goat milk sector, the managers of the milk processing plants, and the chief buyer of retailers and wholesalers responsible for milk products.

Focus group interviews were suitable to reveal the consumers deeper attitude. Our aim was to get information on the *consumers' behaviour* towards goat milk products, primarily with regard to the consumption and purchasing preferences, the quality and the price and the most important questions on the product structure, product range and the distribution and communication. The consumer questionnaire as the basis of the quantitative method applied was based on the interviews having been carried out. Surveys were done in the capital, two towns and a rural village with consumers *who already had consumed goat milk products*.

2.2.2. Quantitative methods

To get information on consumer preferences, two interviews were carried out. Firstly, following a tasting of goat milk products, an interview was made; then another survey was done on the basis of the country's population.

Tasting interview was carried out in Budapest, in an exclusive supermarket. The duration and location of the tasting and the number of the interviewees made possible to ask 100 consumers. Due to the voluntary sampling, the survey is not representative, neither the randomness was ensured. However, important information was found on the *influencing affect of the personal try of goat milk products*.

The countrywide interview covered 500 people. The reason of using this large sample was that the subgroups organised 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*. According to the results of the focus group interviews, goat milk products are not consumed, or basically the products are consumed by the producers in smaller settlements, therefore these were excluded. The objective of the dissertation was to survey the products that are retailed, controlled and officially qualified; therefore the population of settlements with less than 10000 inhabitants was not the object of the study. In the towns involved, inhabitants above 17 years of age had equal chance to fall in the sample. Due to the low 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 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 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 target people.

The research was based on so called "*face to face interviews*". The fieldwork was done by people who had been previously prepared and their work was under control.

Basically, the questionnaire contained *closed questions*. In case of certain questions, the five-step interval scale was used, which is easy to understand by the interviewed people and gives picturesque figures on the

consumers' opinion. In case of other questions, there was also an opportunity for the people asked to give their own opinions.

The processing of the data had been collected during the survey was done with suitable mathematical-statistical software; which needed a previous coding of the answers. Distribution of the frequency of the data was calculated by the *software SPSS for Windows 9; and with crosstables* the relations of each variable were analysed with all the background variables. Beside of basic statistics, significance analysis was done with Chi-square test and one way T test; also the ANOVA and cluster and factor analysis as multivariable statistical tools were used.

To show the frequency of goat milk products, the indicator of annual frequency (SZAKÁLY Z., 1994) was used, which figure shows how many times per year is a product consumed by a Hungarian consumer.

3. RESULTS

The survey of the dissertation can be divided into two parts. Firstly, the actors of the goat milk product chain are introduced, the consumers' preferences regarding the goat milk products follow.

3.1. Actors of the goat milk product chain

3.1.1. Goat milk producers

The survey of the producers was based on secondary research. As neither the *number of the goats is unknown* in Hungary, nor is the number of the goat farmers available. In 2004, there were 300 farms registered, according to the number of the members of the Hungarian Alliance of Goat Farmers. However, together with the unregistered herd, the *total number of families who make a living on goat farming is about 7 000*. The size of their farms can only be estimated, as different statistics publish highly varying figures. Between 1999 and 2002, the size of the producing goat herd changed significantly (Figure 1).

Figure 1 shows the distribution of the goat farms owned by the members of the Hungarian Alliance of Goat Farmers. More than 86 percent of the farmers keep less than 30 breeding goats; and within it, most of these (58.6%) keeps less than 10 female goats. Only 8.5% of the farmers owned goat farms with suitable farm size (31-50 female), to make living for a four member family. The share (4.6%) of even larger farms is almost infinitesimal (KUKOVICS, 1999b).

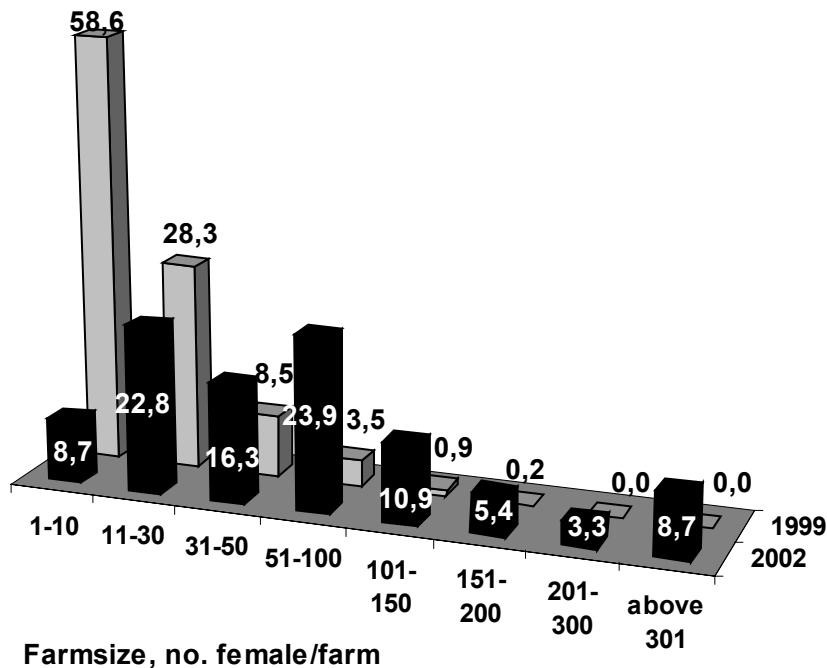


Figure 1: Distribution of goat farms by size, %
 Source: KUKOVICS, 1999b; KUKOVICS et al, 2003

According to the results of a survey done three years later, *the share of larger farms increased*. At this time, only 31.5 percent of the farmers kept less than 30 female goats, and the other farm size categories also developed. While in 1999, only one farmer had more than 150 females, and there were not seen any larger farms, the later survey shows that the share of the largest farms (above 150) was 17.4 percent. The results are somewhat incomparable, because the earlier survey involved 435 farms (7100 female goats), in 2002 it was only the data of 92 members (8300 females).

In Hungary, similarly to the Western European countries, *goat is primarily used for its milk*. The ratio of the receipts from milk and meat can be as high as 80 to 20 percent.

Goat farmers supply different products on the market (Figure 2). However, *43 percent of the product is milk and 36 percent is cheese*. Different kinds of cheese can be found, in 1999, primarily gomolya and soft cheeses were on the markets. Since then, the supply has increased significantly. Goat milk is suitable for the widest product range produced industrially from.

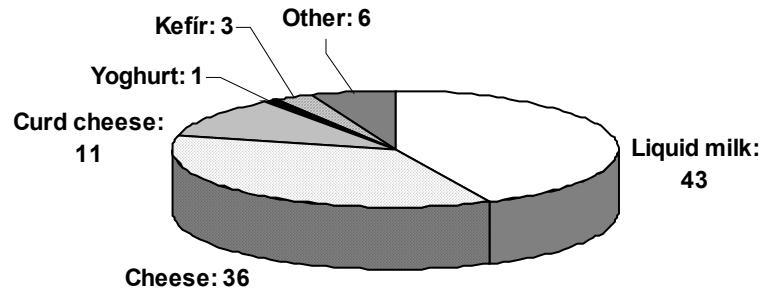


Figure 2: Share of the goat milk and milk products marketed, %, 1999
Source: KUKOVICS, 1999b

Goat milk receipts can be significantly increased if the farmer sells processed milk products instead of raw milk. In 1999, 45 to 60 percent of the farms processed their milk, of which reason was that there was not any system of milk collection. Large milk factories did not process goat milk and the smaller ones just started or worked for a few years at that time. Only besides two bigger processing plants, some smaller processors bought in goat milk, however a *great share of the milk products marketed was not allowed to produce* (KUKOVICS, 1999b).

Despite of the widening range of goat milk products, even by these days there have not been set up a necessary (and in case of other milk products – natural) chain of producer-processing-marketing that is an essential precondition of an effective marketing.

3.1.2. Goat milk processing plants

The opinion of the managers of the processing plants and the product development of goat milk products were very important in the survey. In the relating sector, there are two kinds of processing plants. A part of these plants is recorded and controlled, while the other part is not. In the first case, the consumers are safer, as the milk to process is controlled quality. In the second case, quality control is poor; therefore even the quality of the raw material is questionable. Among both kinds of plants, there are ones with quota and ones without (KUKOVICS, 2002b). During the recent survey, the aim was to interview all the managers of the quality controlled and quota based processing plants in order to get a full picture on their activities, their products and marketing strategy. The relatively low number of the processing plants would have made a fully comprehensive sampling possible; in fact however, not all these managers were contacted. The

managers of 15 plants were deep interviewed, when the aim was to reveal the processors' activities from marketing side.

During the period analysed, the *number of the goat milk processors increased to seven times*, which is relatively a high number compared to the low consumption level. The entrepreneurs do not have elaborated marketing strategies, thus they *could not give reliable answers on the questions regarding even their main consumers*. Seeing the supply, it can be stated that all the processing plants target the market with different cheeses. There is a *huge cheese selection* offered to the consumers, however, only *a few of them produce and supply liquid milk, curd cheese, kefir, yoghurt*. There are of course facilities that are not suitable to produce such products, but neither even those produce where the condition is given. Production of butter or butter cream can not be seen. In case of cheese, the processing plants try to develop unique products which are not produced by the competitors. It is an evident intention to differentiate themselves from the other plants and products. Therefore, the supply is wide, portsalute, camembert, pálpusztá type, feta, parmesan type cheese and those fermented in vegetable oil and different taste of cheese creams can be seen as well. Besides the specialities, the mostly spread products are the natural and flavoured fresh gomolyák and cheeses. Besides these, many times the plants produce longer lasting semi-hard cheeses.

All the managers of the processing plants said that *their products are of excellent quality* and *market leaders* of the available products. Every product had brand name, packaging is generally not attractive, and in some cases it is even objectionable. The pricing strategy basically considers the total cost per product and the profit margin, and/or the price is adjusted to the competitor products by the producers.

The greatest problem of the processing plants is *to organise the distribution*; they hardly find suitable marketing distributions. Similarly to the other agricultural products, *their bargain position is poor against the retailers and wholesalers*. All of them complained about that the real great chance to reach high sales is to get into a big retail chain, but the rates of these chains are not tailored to the small producers. Retail networks do not deal with small series products, thus some of the producers get their products to the consumers through other suppliers. Often they *attend exhibitions and programs* or go to *local markets* or markets in Budapest. Producers of organic products should be mentioned separately, they find their consumers in organic shops or markets. It is interesting that marketing is less hard for these producers, because the target consumers can be well defined and are special and also their consumption and purchase habits are known; therefore it is easy to find the effective marketing channels.

The *main deficiency* was seen in case of *communication*. The managers mentioned their leaflets and tasting as purchase stimulating tool. Only one of them run commercial in the media and tries to get reputation.

3.1.3. Retailers of goat milk products

Commercial chains appeared in the end of the 90ies in Hungary, and since these have undergone a huge development. Their role is determining in the Hungarian food commerce. In order to get a full picture on the goat milk product chain, it was necessary to contact the traders influencing the market decisively. Deep interviews were made with the supply managers of milk products in order to get information on the sales of goat milk products.

On the shelves of the commercial chains, since their appear in Hungary, goat milk products have been available in order *to widen the supply*, however only small volume is sold accordingly the consumers' demand. *The opportunity to get in a commercial chain is less open for a goat milk processing plant, than it is for others*. In case of goat milk products, especially the *volume of the product to sale* is the object of the problem, as the processors often can not supply such a volume of the product that is reasonable to put on the shelves. Rejections are frequent mainly because of this reason; therefore these products can get into the chain through other milk processing plants. It is partly the reason of that only the products of 6 processing facilities out of 24 show up in commercial chains, mainly cheeses. Besides Hungarian products, commercial chains offer French, Greek, Holland and even Bulgarian goat cheeses.

According to the opinion of the supply managers, a perceptible but *stagnating demand* for goat milk products can be seen. During the last years, quick development was not seen; the consumption of goat milk products is almost constant. The orders are made on the basis of the sales; however the gourmet consumers likely would look for these products if the shop did not offer them.

The managers of the milk departments of the shops are responsible for stocking, ordering and placing goat milk products. Greater attention to pay is possible only by the so called "merchandiser" (responsible for the products of the supplier) employed, which not really typical in case of goat milk products. The commercial chain use high profit margin, because the *consumers of goat milk products are less price sensitive*.

In case of goat milk products, generally the communication tools are not used; because these are not mass but special products staying in the centre of the attention, according to the managers. Therefore, tasting and promotions do not contribute the increase of the turnover significantly.

The commercial chain can not take the responsibility for the promotion of these products; this is the task of the supplier, as well as the

tasting, which is rare in the shops of the chains. On the market, the *goat milk processors are defenceless against the requirements of the commercial chains.*

3.2. Consumer preferences in case of goat milk products

These results were obtained by focus group analyses, tasting interviews and country-wide survey. In the following, the results considered as the most important ones will be shown without the analysis by background variables with an intention to summarise. As the consumption surveys built upon each other and dealt with similar questions, the results are shown by themes.

3.2.1. Features of goat milk consumption

According to the results of the *focus group analyses*, all of the interviewed people consumed cheese, but only a few mentioned curd cheese and milk.

Eighty percent of the participants of the *tasting* have consumed goat milk products, contrary, according to the country-wide survey, this ratio is only 53 percent. This high figure can be explained that the people considered tasting as consumption; however consumption is if it is regular.

Based on the results of the tasting, the share of the products consumed is shown by Figure 3.

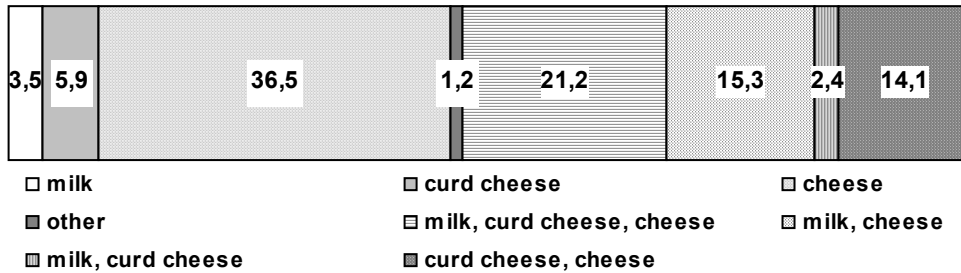


Figure 3: Share of consumed goat milk products in case of tasting, % (n=85)

The majority of the consumers of goat milk products mentioned cheeses, much less did liquid milk and curd cheese.

Most of the consumers involved in the country-wide survey (78.5%) have consumed goat cheese, 44.6% goat milk, and 36.9% curd cheese. Consumption of other milk products (kefir, yoghurt) was infinitesimal.

The shown share of the goat milk products is not surprising, as the processing plants mainly produce cheeses, and cheeses are mainly available in the shops.

In case of the people who do not consume goat milk products, the aim was to get information on the reasons of the rejection. Figure 4 shows the tendencies of the figures obtained in the *country-wide survey*.

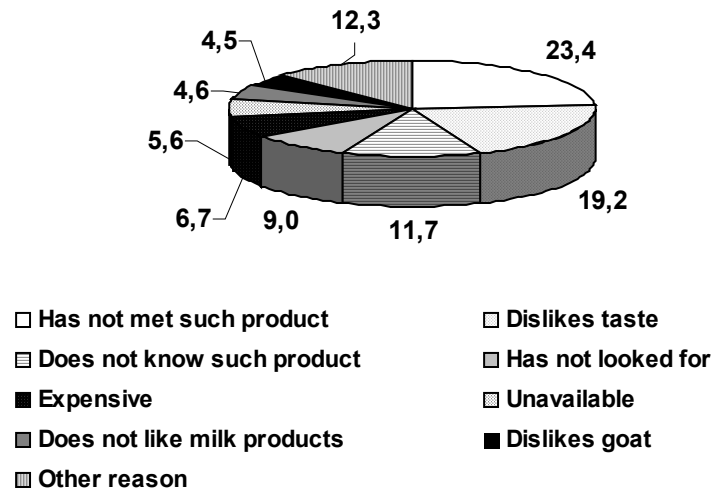


Figure 4: Reasons to reject the consumption of goat milk products in case of the country-wide survey, % (n=219)

23.4 percent of the interviewed people do not consume goat milk products because *they have never met such products*. There are people in high share (19.2%) that can not accept the *special flavour and taste* of these products therefore they reject goat milk product consumption in its basis. 11.7% of them *do not know the products*, therefore they could not even try these. Only 5.6 percent of the non-consumers mentioned that the *high price* is the reason of the rejection. However, this answer together with the answer “Not available” relates to the rejection of purchase rather than of consumption. During the *tasting*, similar answers were found. Here, the taste had somewhat higher record (33.3%); and after the answer “I have not met such product”, the third place was taken by the high price of the products with 22.2 percent. The difference was not clear for the consumers between consumption and purchase here as well.

According to the data of the *country-wide survey*, *one fifth of the non-consumers are inconvincible of the consumption of goat milk products*, as they are basically averse from the products. This is the segment that can not be considered as potential consumers, it is not reasonable to target them on the market of the analysed products. The other people however, if they

could try the taste of the products and met more advertisements, would be convictable of consumption. During the *tasting*, *each of the interviewed people found a product that they liked* and 97 percent of them said that they would be willing to buy it.

3.2.2. Consumption frequency of goat milk products

The country wide survey also asked questions on the annual consumption frequency of goat milk products. This was analysed on a five-step scale. Based on the results obtained, the consumption frequency of goat milk products in case of Hungarian consumers is not even low but basically infinitesimal. The highest figure belonged to the *cheeses, with 17 times per year*. This means that about every three weeks, the Hungarian consumers have goat cheese. *Milk* had a lower figure, which is *consumed about 10 times per year* by the people interviewed. This in practice means that rarely than every month the average consumer wants it. *In case of curd cheese, the frequency of consumption is 6 times per year*; this is every two months it is consumed; the consumption of other goat milk products is almost zero, only a few gourmet consumers have goat yoghurt or kefir. According to the summarised results, the consumption frequency of *goat milk products is around 33 times per year*. Based on these data, the Hungarian consumers have any goat milk products in every 11 days. Consumption would increase if the price of the products went down and the products were available at more places.

3.2.3. Survey on purchasing behaviour

On the *tasting trial*, 67.6 percent of those consumers that had already have goat milk products, also bought some of the products, but 32.4 percent did not. According to the results, *most of the people (66.2%) bought cheeses*, but a relatively high number of consumers bought more than one products as well. Milk and cheese were bought by 13.8% and 7.7% of the people interviewed, respectively. Some of them (10.8%) had the opportunity to buy from all the most frequent goat milk products.

Having seen the results of the analysis of the country wide survey it was stated that almost two third of the consumers (64.5%) never bought any goat milk products and as few as only 35.5% of them bought any products. In this case, the ration of the consumers and non-consumers is almost the opposite of that obtained in the answers of the tasting. Based on the data obtained, it can conclude that the people that tried any products on the tasting are likely who are not antipathic with goat milk that much. In the country wide survey, similar tendencies of product share were seen to those in case of the tasting and of the consumption.

In Hungary, consumers buy goat milk products mainly in *hyper- and supermarkets, many of them go to local markets, and often buy from directly the producers*. People that do not buy it said that the reasons are that they have never met such products or these are not available in shops, or many of them dislike its taste or the high price was the reason. Based on the answers given, the people were also confused about the difference between consumption and purchase, as the taste rejection relates to the consumption not the purchasing.

3.2.4. Influencing factors of purchasing decisions

In case of the country wide survey, the aim was to get information on the factors influencing the consumers' purchasing decisions on goat milk products and other food. The people were asked to mark the importance of following factors as with the Hungarian school grades. Giving 1 means "Does not influence me at all" and 5 means "Influences me highly".

Table 1

Influencing factors of consumers in case of goat milk products and other food

Influencing factors	Goat milk products n=266	Variation	Other food n=504	Variation
1. Taste of the product	4.43	1.17	4.74	0.72
2. Quality of the product	4.37	1.27	4.63	0.82
3. Healthiness of the product	4.22	1.31	4.19	1.11
4. Appearance, aesthetics	3.96	1.44	n.a.	-
5. Price of the product	3.84	1.52	4.35	0.96
6. Nutritional value of the product	3.75	1.61	n.a.	-
7. Availability	3.50	1.58	4.14	1.10
8. Size	3.46	1.61	3.76	1.40
9. Habits	2.33	1.54	3.45	1.31
10. Trendy to consume	1.72	1.28	n.a.	-

According to the results of Table 1, the most important factors were *the taste and quality of the product* in case of purchasing goat milk products and other foods. In case of goat milk products, *the healthiness of the product* was more important than its *price*, while in case of other foods, the third place was taken by price the fourth was by the healthiness. The *only* influencing factor among the listed ones was healthiness that had higher figure in case of goat milk products than other foods. In our opinion, the positive consumer attitude on healthiness is reasonable to use in the

marketing of the goat milk products. *Price* as factor is behind the *appearance and aesthetics of the product* in case of goat milk product. *Availability* was more important factor in case of other foods than in case of goat milk products, according to the answers; in case of the later *nutritional value and content* is more important. *Suitable size of package* is moderately important factor, and *habits* are less typical in case of goat milk products than other foods, where this is a mid-important factor. Consumers said less that the *trend* would be the reason to buy goat milk products. It has to be mentioned that in case of other foods, the taste, quality and price of the product were the three factors, where the average difference from the average was lower than 1; and in case of all the other factors, variation was higher.

3.2.5. Survey on the quality, price and brand awareness of goat milk products

The results of the tasting trial definitely show that the Hungarian consumers are highly satisfied with the quality of goat milk and its products (Figure 5).

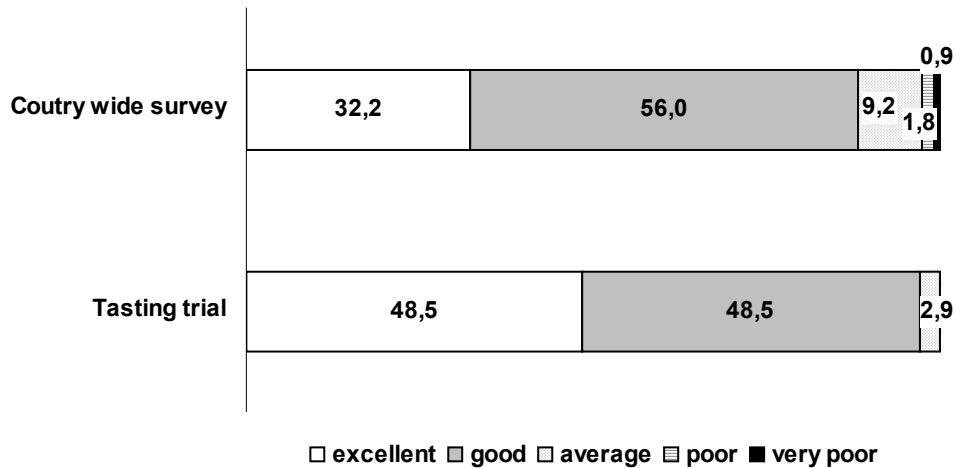


Figure 5: Consumers' opinion on the quality of goat milk products, %

None of the consumers asked on the *tasting* judged the quality of the products as “poor” or “very poor”, even the grade “average” was mentioned by only 2.9 percent of them. Both “good” and “excellent” had 48.5 percent, therefore it had 4.45 points on the five-step scale.

The *country wide survey* has proven that the Hungarian consumers are *satisfied with the quality* of goat milk and goat milk products. There were only a few consumers thinking that the product quality is poor (0.9%), or very poor (1.8%); average quality was given by 9.2 percent of the

consumers. Good quality was given by 56.0 percent, excellent by 32.2 percent of the people asked; therefore, therefore it had 4.17 points on the five-step scale. This is a lower figure than the results obtained in case of the tasting.

The opinion on the product price given by the people interviewed by questionnaires is shown in Figure 6.

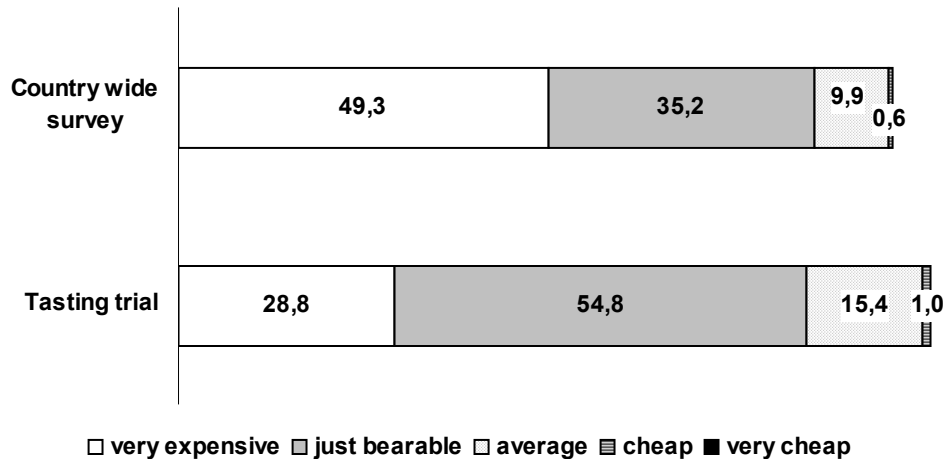


Figure 6: Consumers' views on the price of goat milk products, %

During the *tasting*, none of the people thought that goat milk products have too low prices, and only 1 percent of them said these are cheap. Average grade was given by 15.4 percent and most of them (54.8%) thought that the products have just bearable prices. In a high share (28.8%), there were people that find the prices very expensive.

In case of the *country wide survey*, none of the people thought that goat milk products have too low prices, and only 0.6 percent of them said these are cheap. Average grade was given by 9.9 percent. Many of them (35.2%) thought that the products have just bearable prices and most of them (49.3%) said the prices very expensive.

The *price* of products were told to be *high* by the people involved in the *focus group* interviews, however they are willing to pay a certain extra price. The reasons are that cheese from goat milk was e.g. flavoured in a unique way, which was thought to be very attractive and the healthiness of the product also counts. The members of the groups agreed that those people who do not like the taste of these products would not pay such high prices despite of the healthiness of the products. The very high price and poor availability of the goat milk products were mentioned as the main reasons of low consumption frequency. Each of the members of the groups had a

positive experience on the consumption of any goat milk products; thus all of them would be pleased to eat it more often, about once a week, if the product was cheaper and it was sure that the product available is fresh.

Having compared the results of the questionnaire based surveys, *quality* was found to be *more important* and the price less high *in case of the tasting trial*. Personal touch, tasting of the goat milk products, thus, has a favourable impact on the consumers' preferences. At the same time, the figures obtained have proved that products with excellent quality appeared on the market, which was realised and reflected by the people involved in the tasting. In case of high quality, the price does not seem to be so high and the consumer is willing to accept a higher price for a better product. This method of sales promotion, thus, should be considered when the target is to get a better opinion on the goat milk products and to market a higher volume.

It was also found that the people interviewed *do not know the brand names of goat milk products exist*.

3.2.6. Consumers' opinion on the nutritional value of goat milk products

The members of the *focus groups* mentioned hardly anything on the nutritional advantages of goat milk. All of them knew that it is healthier than cow milk, but the reason was not mentioned. One of them said that goat milk has different content that is why it is more valuable. And other of them knew that goat milk is advisable for people with asthma. As a disadvantage it was mentioned that because of its special taste, not everyone likes goat milk. They knew all these from books, newspapers or from friends, or even they did not remember of the source of the information.

Regarding the views on the nutritional value of goat milk products, on the *tasting trial*, 52.4 percent of the people thought that they have knowledge on goat milk, while only 34.4 percent of them did so in case of the *country wide survey*. In their answers, the people *defined general advantages, such as healthiness*. In case of the *tasting trial*, there were more people that mentioned the high mineral and calcium content, fat content of goat milk and that it is consumable by milk sensitive people as well. Neither the answers given in the wider interviews showed deeper knowledge. They think that goat milk has a better digestibility, is rich in vitamins and as a higher nutritional value than cow milk. The people involved in either the *tasting* or in the *country wide survey* could not decide if the fat content is higher or lower. The consumers do not have a clear view in this point either, and summarising, their *knowledge on goat milk are poor* and appropriate information would be a necessary task.

3.2.7. *Segmentation of consumers of goat milk products with factor and cluster analyses*

The segmentation of the people interviewed was thought to be important in planning an effective marketing strategy and the advertisement targeting the consumers of goat milk products. The country wide questionnaire contained *statements on life style* 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. The first cluster (A) involves 18.7 percent of the people asked, 6.4 percent belongs to the second cluster (B) and 74.9 percent to the third (C) cluster. Significant difference was tested between the clusters by the method ANOVA – relating the basic demographic criteria and the product features influencing the purchase. The difference between the segments was tested with T test at 90 percent confidence level based on the figures given on the living conditions (Table 2).

Both in the cluster analysis and in the analysis of the background variables of lifestyle, *definite differences was not found between the clusters, only small differences were seen*. Regarding age, however, male are dominating in Cluster A, while in the other two clusters the ratio is almost fifty-fifty. In case of the *age groups*, more definite difference was found; while by the highest academic degree, Cluster C contained in majority basic level education and only together the people with medium and high level degree had a higher ration. Segmentation by neither *the type of settlement or regions* nor the *income* resulted in great differences; the following table contains the more typical differences.

In case of both goat milk products and other foods, the results of the survey on the *purchase influencing factors* shows almost the same definitions in different clusters, only the order or one definition is different. The same can be seen in case of the *factors of life style*; even the minimum figures of the consumption of goat milk products vary very little.

In case of the *clusters based on the life style*, it was also difficult to find differences. People in all the three clusters are interested in healthy life way, only its extent differs. The first two places are taken by the tolerance towards the environment and the maintenance of the children's lives. On third and fourth places in the order of the values, wellness and sport stand, which are relating to healthy life way. None of the groups considered that purchase in trendy shops is important.

Table 2.*Parameters of the clusters (n=504)*

Parameters	A	B	C
Gender	Mainly male (70.5%)	Mainly female (55.0%)	Mainly female (58.6%)
Age	Young 18-25 (18.4%) 26-35 (35.6%)	Older (42.6%) and mid-aged 36-45 (30.7%)	Even distribution
Education	Basic (60.1%)	Basic (65.8%)	Intermediate and higher (53.2%)
Type of settlement	County capitals (42.4%)	Even distribution	Even distribution
Region	E-Hungarian (45.5%)	W-Hungarian (42.1%)	Even distribution
Income	Average and lower (89.4%)	Average and lower (60.3%)	Average (66.4%)
Most important point when purchase of goat milk	Taste, healthiness, quality	Taste, quality, appearance	Quality, taste healthiness
Lest important points	Trend, habits, availability	Trend, habits, healthiness	Trend, habits, size
Most important point when purchase of food	Taste, quality, price, healthiness	Taste, price, quality, availability	Taste, quality, price, healthiness
Lest important points	Size, promotion, trust in the seller	Promotion, trust in the seller, brand name	Promotion, brand name, trust in the seller
Goat milk product consumption	Relatively often	Relatively rarely	Most frequently
Important lifestyle factors	Environment, children, sport, nutrition	Children, environment, market	Environment, children, nutrition, sport

As with factor and cluster analyses, definite separation of the clusters was not seen in the research; it can be concluded that the *consumers of goat milk products can not be defined with the criteria applied in the known segmentation methods*. In other words, despite of all the efforts done, *the potential consumers of the analysed product group can not be defined in Hungary*. This reflects on that *this niche-market is in the beginning of its development, with mostly varying demands*. Many similar parameters found in the clusters *make it possible to develop a common marketing strategy and advertisement* for the consumers. Thus, it is not necessary to develop

different marketing programs for each segment, but to create only one strategy, which can help the marketing experts of the goat milk products.

4. CONCLUSIONS AND RECOMMENDATIONS

According to the results of the secondary and primary surveys, the following statements and recommendations should be considered in order to achieve a more effective marketing:

After the increase of the goat herd and farm size experienced in the last years, the *producing herd* is suitable to produce more milk; in case of a leap increase of the demand it is *able to satisfy the demands*. The farmers could realise higher yields by better keeping, feeding and milking and by observing the animal hygiene rules, which would be able to meet a higher demand. At the same time, stable market and reliable milk price could induce establishing more goat farms.

The *number* of the goat milk *processing plants* is *relatively high* compared to the market demand of the consumers; therefore it does not make any or very little profit. The small market makes impossible to differentiate the processing facilities (such as in product scale, brand name, image), which was perceived by the consumers. From the point of the processing plants, *marketing of the product is a problem*; which is partly caused by the unsuitable communication, primary the lack of purchase stimulation. In or opinion, the lack of marketing strategy results in difficult marketing, which is seen in case of all the entrepreneurs and typical for the small enterprises in Hungary (JÓZSA, 2004).

The *commercial units* trading goat milk products are in absolute *advantage* on the suppliers and processing plants. Their monopoly can be eliminated on the market of the analysed products only *if the processing plants apply* totally different, *special marketing channels* targeting directly the target market, such as wine tours, restaurants, cheese shops.

A fundamental task of the actors of the sector is to *improve the domestic consumption* of goat milk products, as the consumption frequency is almost infinitesimal. The current level of consumption is influenced from one side by the economic factors (prices, incomes), from the other side by the consumer and purchase behaviour. The increase of the consumption is expectable in case of long term development of the real income; secondly, the change of the consumers' attitude can result in development. In case of the latter, the market influencing tools should be applied. Effective marketing is difficult because neither the sector nor its actors have marketing strategy for longer term. The results of the research can

contribute the development of the strategy that is briefly shown covering the STP marketing and the marketing-mix.

Market segmentation: in case of goat milk products, the results of the research definitely show that the *consumers' demand, power of purchase, geographic situation, purchasing attitudes and habits are different*. It is not reasonable to try to satisfy all the consumers individually by the supply and the communication. Based on the results of the factor and cluster analysis, definite segments can not be separated; likely because of the *varying preferences*. By using the segmentation criteria, it is reasonable to create homogeneous groups by *age, income, education and life style, maybe living place*.

Selection of target market: the consumers of goat milk products can be characterised with demographic and psychographic features. Thus the *younger, higher educated consumers living in larger towns with higher income* are more interested in the products, who are interested in *healthy life style and nutrition*, as well. Those belong here that use health and nutritional novelties as trend, and those that apply the previous in their nutritional culture. Commitment in the products can be expected in case of this group. Neither in the future goat milk products should be considered as mass product but rather its niche market nature should be strengthened. Nevertheless, a higher consumption and sales can be achieved. It has to be considered however, that in the sector, profitability can be achieved only with higher sales that is possible with a strong marketing. It is important to mentioned, after analysing the consumers, that *a number of the people will never meet the product by themselves*. People that dislike the taste of the goat milk products will not accept, try and consume it, therefore they can be surely excluded off the potential market.

Positioning: The aim of the positioning strategy is to differentiate the competitive position of goat milk products from other competitive products (milk products, healthy food) in the consumers mind. According to the idea of the USP (unique selling proposition) strategy, if only special selling promise is defined, it has to contain the information of "*healthy food*". If we want to emphasise two advantages, *high quality* should be focused on beside healthiness.

Product strategy: the majority of *product development* was carried out in the end of the 90ies in the Pécs Division of the Hungarian Milk Industry Research Institute: the production technology of different products is ready, however the products has not been marketed yet. We believe that beside goat cheese other non-launched products should be focused on, such as kefir, yoghurt, butter and butter cream or milk desserts. There is a wide range of cheeses; the processing plants offer fresh and matured products in several flavours. Production of butter and butter cream are worth paying

attention in goat milk processing, as these are significantly economical to produce than cheeses. Kefir, yoghurts with different taste and milk desserts should be developed in such way that pleases the consumers.

Within the product strategy of goat milk products, *branding* has to get an outstanding attention. According to the results of the questionnaires, the consumers' brand awareness is poor. Therefore, in the near future, the processing plants have to start planning their own brand values, of which advantages can be exploited if the volume of the consumption goes up. A lack of packaging is that it is less attractive. Packaging and labelling that emphasise the excellent quality and healthiness of the product is advisable. In fact, goat cheese in wood box is available on the market, in commercial chains the consumer rarely finds it.

Pricing strategy: According to the opinion of the consumer on price, goat milk products are *expensive*, therefore, consumers come from those with higher income. "High price" strategy is viable on the market of goat milk products, because the consumers often relate *high price to high quality*. Thus, price can express healthiness and quality. In planning the strategy however, it has to be considered that a large part of the consumers said that *they would buy more products and more often if it was cheaper*. Further researches are needed on the price elasticity of the goat milk products, what decrease in price would lead to increase in demand, and whether decrease in price would result in higher income of the actors of the product chain.

Distribution strategy: on the market of goat milk products, the *main problem* is to develop the distribution strategy. Only together, *in cooperation* the several processing plants can achieve effective position against big commercial chains. The consumer group with higher income, however, can be targeted in *exclusive shops*, where price factor is less dominant. It would be important to make the products available not only in Budapest and its surrounding but the consumers should be able to find a wider product scale in larger towns as well. Beside the traditional retail shops, establishment of a *multi-distribution marketing system* can result in more consumers of the product. *Such new, so far not applied ways of marketing are needed*, as marketing relating wine tours and wine consumption, special shops (shop of cheese, special products), or the goat cheese specialities in the food offer of exclusive restaurants. Of course, initial examples can already be found today, but wide spread can not be seen.

Communication strategy: According to the results of the research, in planning the marketing strategy, emphasised attention should be paid on the promotional and communication strategy. In our opinion, in case of goat milk products, the solution of this problem is the most urgent. The consumers have a *little knowledge on the product scale*; and a huge *lack of*

information was seen on the analysed products. A consequent communication strategy advised here have three steps: firstly, a *country wide PR*, education and information can be emphasised. In the mind of the consumers of goat milk products, a picture of “healthy product” lives, however they are even unclear about the features of such a product. This positive “prejudice” is useful to exploit in the marketing strategy of the sector and the companies. In popular magazines primarily targeting the well-off young people and in life style and fitness papers, the favourable effect of the goat milk and its role in *healthy nutrition* and its *uniqueness* are reasonable to publish. It is important that the articles come out continuously in order to keep the consumers attention alive.

In the second step, an advertising *campaign* can lead to success. Advertisements adjusted to the media use of the targeted group. Ads placed in the magazines mentioned previously and commercials in the TV and radio can attract the attention of the consumers or the role of posters and place-of-sale promotions are suitable. In the advertisements, beyond the PR information, the *prestige of the product* can be emphasised, which also attracts the attention of a part of the average people.

As third step, along with the advertising, the tools of *sales promotion* have to be applied. Tasting is the most important, but also product samples and maybe tie-in sale with another healthy food are feasible ways. Collection of points with high value offer and in the initial phase coupons can be applied; however in case of a less price sensitive segment of the consumers, it will not be surely successful.

The whole work needed to be done in the strategy development can not be carried out by only the actors of the sector due to the lack of professional knowledge and capital. However, their role is outstanding. In the information supply, the *agricultural government, the research and educational organisations of the speciality, the Hungarian Ministry of Agriculture and the Agriculture Marketing Centre and interest representative organisations play essential role*. A common informational campaign however will only be successful in market development if the annual financial budget is appropriate.

5. NEW SCIENTIFIC RESULTS AND FINDINGS

- 1.** Mapping up the actors of the goat milk product chain, marketing based analysis of the activities of the processing plants, overall analysis of the consumer and purchase behaviour of domestic goat milk products, and the marketing strategy developed for the sector.
- 2.** Creating three clusters with multi-variable mathematical-statistics, behind of which similar features varying market demands are hidden; thus it is proven that market of the goat milk products is in the early stage of its development that includes the potential of the development.

6. PUBLICATIONS IN THE FIELD OF THE DISSERTATION

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