

DOCTORAL (PhD) THESIS

UNIVERSITY OF WEST HUNGARY
FACULTY OF AGRICULTURAL AND FOOD SCIENCES
MOSONMAGYARÓVÁR
INSTITUTE OF ECONOMIC SCIENCES

Ujhelyi Imre Doctoral School of Animal Sciences

Head:

Dr. Benedek, Pál DSc.

Director of institute, university professor

Programme: Economic Questions of Producing, Processing and Trading
Animal Products

Programme leader:

Dr. Tenk, Antal CSc.

Professor emeritus

Marketing Aspects of Purchasing and Trading Animal Products of Ecological Origin

Scientific leader:

Dr. Sántha Tamás PhD.

egyetemi docens

prepared by:

Bódi Csaba

Mosonmagyaróvár

2010

1. INTRODUCTION, OBJECTIVES

Introduction

There is a dynamically growing share of ecologically farmed land and the volume of sales of ecologic food stuffs in the whole world. This is partly due to the better environment consciousness induced by the negative influence of environmental changes, sustainable farming and the rising demand on healthy eating on behalf of the consumer society.

The rate of animal husbandry in ecological production is less important, and does not meet the desired size in Hungary. But animal origin raw materials have a considerable rate in baby food providing the intake of protein and other nutrients for balanced growing.

Despite the fact that the number of children is reducing parents want to satisfy their needs at utmost level. The segment of ecological origin baby food is rising on the market of baby food, therefore it is important to get informed about the demands, expectations and preferences of consumers so that producers can enlarge their established market share with the help of innovative marketing measures.

1.2. Objectives

The basic aim of the thesis was to give an account of the development of ecological growing and processing, their legal background and consumer tendencies with special regard to animal origin products, carrying out target group investigations at the field of baby food, analysing consumers' preference and making suggestions that can be turned into practice in the following fields:

- preferences towards home made and fabricated baby food.
- factors influencing the frequency of purchasing and consuming baby food.
- motivations to increase consume.

- ingredients of good quality baby food
- awareness of nutritional advantages of bio raw materials
- the possibilities of sale, packing and packaging
- product development policies
- discussing the choice of baby food

2. MATERIAL AND METHOD

Research work was carried out in the Institute of Economic Sciences at the Faculty of Agricultural and Food Sciences of the University of West Hungary.

2.1. Focus group interview

We used the so called *focus group interview* as a qualitative method of primary research among several qualitative marketing research methods. As a first step we randomly choose 52 women who were asked to fill in a screening questionnaire. Further the participants of the focus group were selected among them based on the preferred aspects of investigation. As a result 15 women met the criteria: mothers between 18-40 (50/50% each) with babies or small children and at least secondary education. The research was based on three big circles of topics with several questions:

I. The topic of consumer behaviour and shopping habits:

1. preferences for home made and fabricated baby food,
2. factors influencing the frequency of purchasing and consuming baby food,
3. motivations to increase the consume.

II. The topic of factors, motivations and preferences related to the quality of baby food:

1. ingredients of good quality baby food,
2. awareness of nutritional advantages of raw materials coming

from ecological produce.

III. Topic of product structure and range analysis:

1. the possibilities of sale, packing and packaging,
2. determining product development policies,
3. discussing the choice of baby food.

2.2. Personal interviews

Among the primary research methods the quantitative method was based on personal (questionnaire) interviews. In the preliminary sample test we planned to ask *200 persons in the county of Győr-Moson-Sopron*. This large number of persons to be interviewed was necessary in order to have sub-groups with adequate number of participants that were chosen on the bases of different background variables with the aim to achieve statistically reliable results. With the „random walking” method we approached 200 persons. There were only 138 willing to cooperate and informative among them. 105 of the filled in questionnaires were fully completed, so they could be evaluated.

The prepared questionnaires were based on *close questions*, which considerably eased the evaluation later on. For some of the questions semantically differentiated scale was preferably used. The methods offered by Likert scale were also applied.

The aim of the questionnaire was to investigate the consumers' preferences and involved the following topics:

- Analysing the consumers' behaviour towards:
 - brand awareness,
 - function of reference groups,
 - differentiation according to Point of Customer.
- Exploration of product choice preferences.
- Evaluation of the product's chemical parameters by the consumer.

- Evaluation of the product's physical properties by consumers.
- Exploration and classification of informative media.
- Consumers' awareness of product lines linked to the very product and the effectiveness of brand association.
- Analysing the supported recall level of logo – brand – firm coherence.
- Measuring the effectiveness of one of the special PR means applied by the producer.
- Analysing the free recall level of advertising slogans applied by the producers of the product groups involved into investigations.

3. RESULTS AND EVALUATION

3.1. Results of focus group interviews

Statements and particular suggestions made in the investigated field of topics can be turned into practice by the producer. Several of them can be regarded as new and novel scientific results.

Consumers' faith in bio-products especially in bio-meats is very low, therefore it is advisable to communicate the quality and domestic origin of meats used in baby food much more effectively.

Indications regarding the nutritive value and ingredients correspond to legal regulations but do not satisfy the consumers' needs.

The size of packing, re-sealable packaging, assembly packing should be optimised according to the consumer needs in the process of product development.

Hungarian consumers rejected hard wall plastic packaging due to security and environmental awareness.

The enlargement of applied distribution channels and the rationalisation of the applied advertising activities seem to be suitable.

The applied colour codes do not transfer any information to customers, so its optimisation would be advisable.

The customers are satisfied with the products' taste-range and their combinations, but greater attention should be laid on the composition and consistence, and the taste and odour character of meat products should be developed as well.

3.2. Results of personal interviews

The distribution of baby food according to trade marks reflected the market share of the producers concerning the purchased products involved into the investigations.

Analysing the preferred brands we can see that about one third of the Hipp customers (32%) regard Kecskeméti baby food as an alternative choice, although those products are not produced from bio-raw materials, therefore they represent a lower price category.

Mainly preferred USP (Unique Selling Proposition) by Hipp consumers is the use of bio-raw materials.

About half of the interviewed persons (46%) also buy Kecskeméti products. The opinion of the customers shows that Hipp and Kecskeméti brands complete each other well. Though high quality Hipp products are made from bio-raw materials and are in a high price category still they can be well combined with baby food of Kecskeméti brand with favourable price and produced from "only" strictly controlled raw materials. Producing both trade marks Hipp Ltd. covers different segments of customers and has this way a leading market position.

Among the customer influencing factors the role of the district nurse is the strongest, which was proved by the test results of the focus group interviews. The rate of impulsive buy is extremely low, so it is advisable to apply instruments in marketing communication that force

rational thinking. The questioned persons found advertisements and press articles informative despite the results of the focus group interviews, where the mothers said, that they were only slightly influenced in making their decision by the newspaper advertisements addressed to the target group.

The **price** was the definite factor for one quarter of responds. Although Hungarian customers are very price-sensitive, in the case of baby food this factor is pushed back and the suggestion of the reference group will be considered.

The order of factors influencing the decision on buying baby food(%)

	friend, nurse		advertisement		randomly		price		other	
	rank	%	rank	%	rank	%	rank	%	rank	%
Based on the chosen product										
Total	1.	47	3.	15	4.	7	2.	25	5.	6
Hipp	1.	47	3.	17	4.	7	2.	22	5.	6
Kecske méti	1.	41	3.	11	4.	6	2.	36	4.	6
Nestlé	1.	42	3.	18	5.	6	2.	24	4.	9
Holle bio	1.	60	-	-	-	-	2.	20	2.	20
Based not on the chosen product										
Hipp	1.	45	3.	10	4.	8	2.	33	5.	5
Kecske méti	1.	39	3.	17	4.	14	2.	28	5.	3
Hipp és Kecske méti	1.	62	2.	15	3.	8	2.	15	-	-

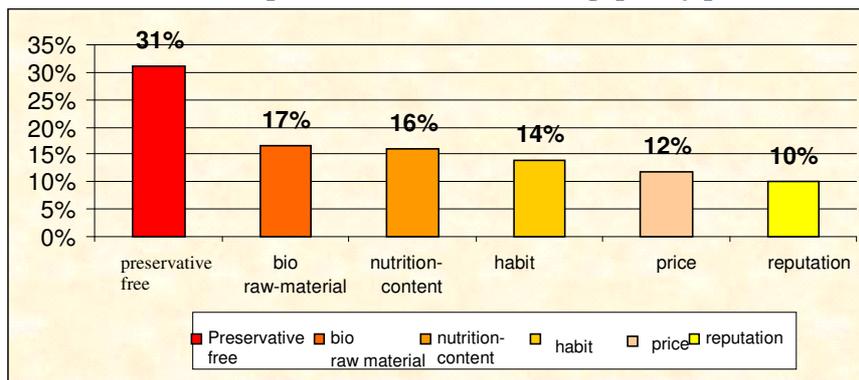
Based on the chosen place of customer hyper- and supermarkets occupied the first place, the second place was occupied with a negligible difference (1%-os) by drug shops, the third place by bio-shops (8%) followed by chemists' shops with a share of 5%.

Places of purchase: baby food(%)

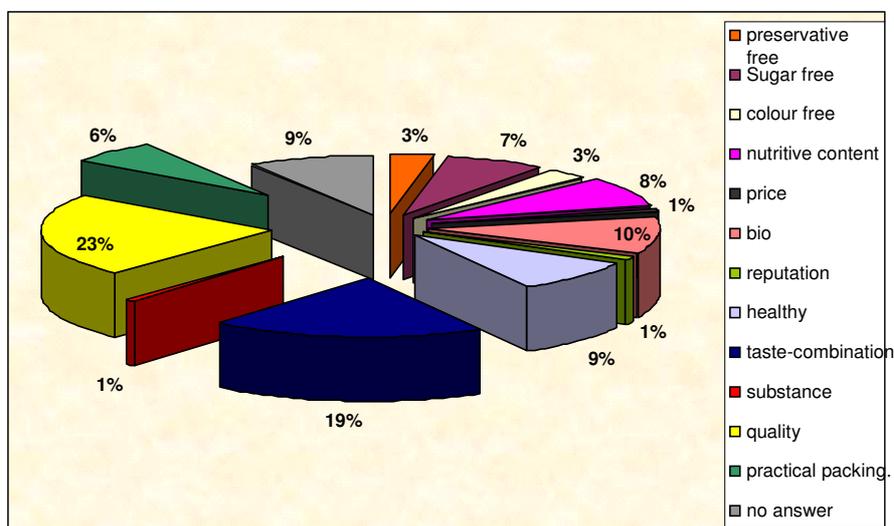
	Hyper-market	Super-market	Drug-shop	Chemists-shop	Bio-shop	Other
Based on the chosen product						
Total	29	29	28	5	8	2
Hipp	28	26	32	5	7	3
Kecske méti	34	27	30	-	8	-
Nestlé	30	28	30	5	5	3
Holle bio	33	17	17	-	33	-
Based not on the chosen product						
Hipp	31	36	18	4	11	-
Kecske méti	30	23	30	5	8	5
Hipp és Kecske méti	19	38	13	13	19	-

Responders could choose from 6 parameters referring to product quality in the form of 6 close questions and then in the form of open questions. So we could create 13 groups of measures on the basis of the parameters during the evaluation. Compared to the close questions we could observe that the priorities considerably altered.

Close order of the product choice influencing quality parameters

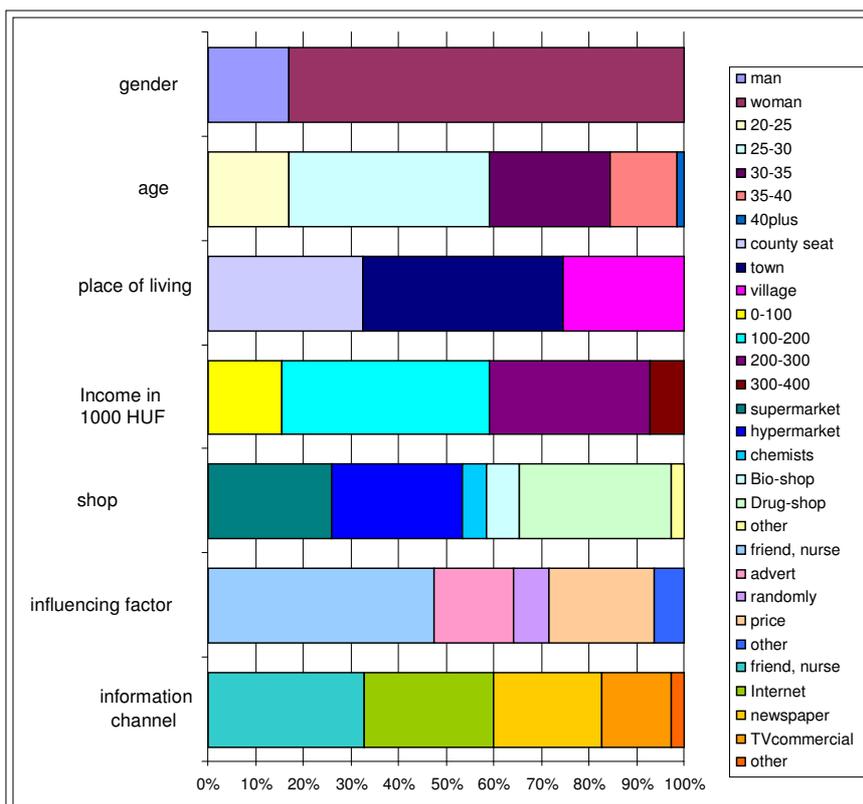


Distribution of the most favourable product features given by the responds of the total sample (%).



As a summary of the own research work we elaborated the complex customer models of those choosing the products of Hipp, Kecskeméti and Nestlé companies with reference to the different demographic and marketing specific and non-demographic characteristics.

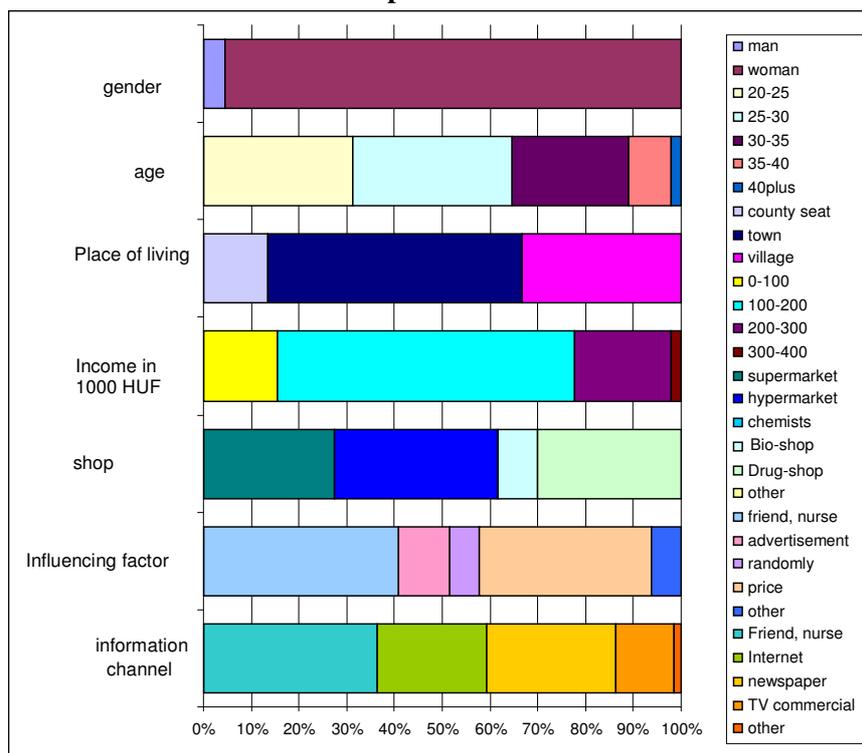
Complex customer model of Hipp products



Based on research results typical Hipp customers can be defined as follows:

They are mainly women between 25-30, they dominantly live in towns, their total family income is between net 100 and 300 thousand HUF, they prefer doing shopping in drug-shops, but they regularly visit hyper- and supermarkets as well, friends and nurses can obviously influence their decision making, their information channel covers a lot: they regularly collect information from district nurses, Internet, printed press but TV commercials can also influence their decision making in buying baby food. None of the information channels can be regarded as significant. Therefore the application of a complex marketing communication system is the most efficient way to reach this market segment.

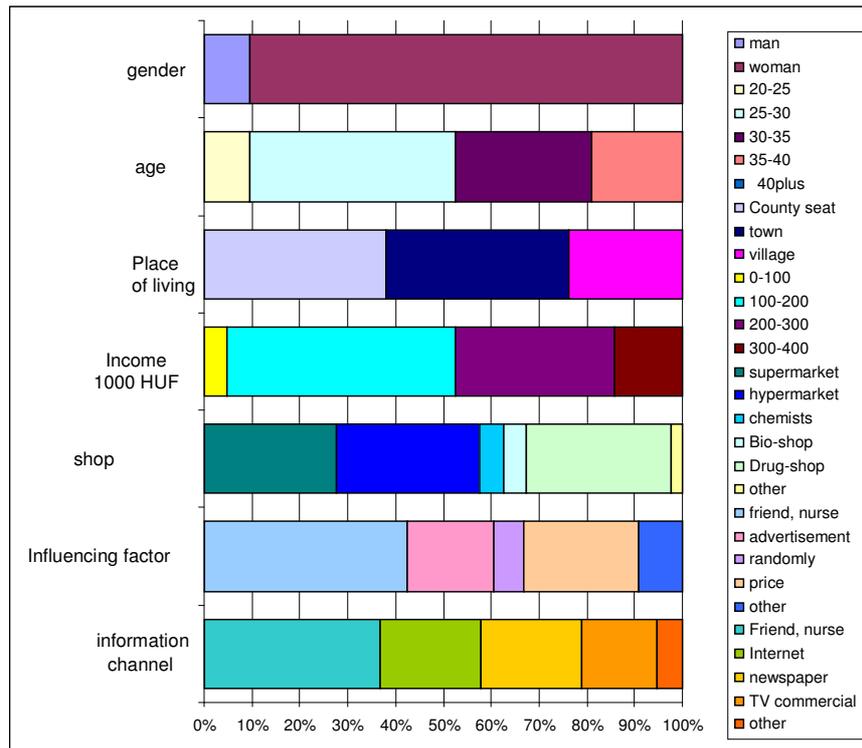
Complex customer model of Kecskeméti products



Based on research results typical Kecskeméti baby food customers can be defined as follows:

They are women in the age group of 20-30, who live in small towns, their total family income is between net 100 and 200 Thousand HUF, they prefer hypermarkets to bio-shops, but they shop as frequently in supermarkets as in drug-shops. Beside friends and districts nurses price is the greatest influencing factor in making their decision. They regularly collect information from the district nurse, from Internet and printed press, their influence is the largest.

Complex customer model of Nestlé products



Based on research results we can define typical Nestlé baby food customers as follows:

They are mainly women of 25-35 years, live rather in small towns and county seats, than in small villages, their families' total net income ranges between 100 and 200 thousand HUF, they do not prefer any special place of shopping, they equally prefer doing shopping in hypermarkets and drug-shops, and visit supermarkets regularly, but do not prefer chemist's shops and bio-shops. Besides the opinion of friends and district nurses, the price is the most influencing factor, but the role of advertisements in their decision making cannot be neglected as well. They regularly collect information from the district nurse, surf in the internet and read the printed press, but TV commercials are less informative for them.

We applied the method of comparative analysis to investigate the three complex customer models and as a result we can conclude the followings:

1. The proportion of men is the largest among Hipp customers.
2. The proportion of the youngest generation (age group 20 and 25years) is the highest among Kecskeméti customers. The reason could be that because of their age they do not have as a safe existence as the older generations.
3. The proportion of the age group 30 – 35 is the highest among Nestlé customers.
4. Those living in villages and small towns mainly buy Kecskeméti baby food.
5. Families with the lowest financial resources also prefer Kecskeméti products.
6. The reference groups of friends and district nurse is the highest influencing factor among Hipp customers.
7. The price as an influencing factor is the most outranging among those who buy Kecskeméti products.
8. Regarding the use of information channels Hipp customers show the most balanced picture.

4. NEW AND NOVEL SCIENTIFIC RESULTS

1. Give an overall picture and making suggestions on marketing aspects of products coming from ecological production focused on baby food and animal origin raw materials especially.
2. Mistrust towards the origin of the ingredients of fabricated baby food, and the mother's self-accusation "I'm a bad mother, because I have no time to cook for my child" has to be counterbalanced by a proper marketing communication.
3. Among the factors influencing the consume and purchasing of baby food are experienced friends with small children and the district nurse can be regarded as the main reference group, when choosing a brand, but the role of the children's doctor is negligible.
4. Based on the research results we established complex customer models of Hipp, Kecskeméti and Nestlé baby food buyers.
5. Producers should optimize the bottle size, which meets best the needs of both international and domestic customers.

The new innovative hard wall cup-packaging, which got good qualification in international test, is fully rejected by Hungarian customers. We found among the reasons: the incompatibility between ecological aspects and plastic packaging, the question of heat-treatment together with preservative relief, possible packaging material migration induced by fruit acids and decrease in prestige of the product.
6. Analysing the composition of good quality baby food we have to mention the need of a simple record of nutritive value and ingredients. Although producers meet the legal requirements, but they do not fulfil this type of their customers' needs.

Customers question the meat quality of baby food, and their ecological origin, so their product choice rather reflected their trust in the producers and brands.

Analysing the knowledge of buyers about the nutritive advantages of raw materials coming from ecological production we could state that their information on the conditions of ecological production are either deficient or not exact and they doubt that the regulations during the meat processing were fully kept. This should be counterbalanced by proper communication.

Based on the opinion of the customers we made an account of the orientation preferences and quality parameters of the products.

5. SCIENTIFIC PUBLICATIONS IN THE FIELD OF THE THESIS TOPIC

PRE-REVIEWED PAPERS

In German

Bódi Cs., Németh-T. A., Vincze-Tóth J, Falusi B (2010):

Fokusgruppenuntersuchung für Konsumentenpräferenzen bei

Babynahrung, insbesondere aus ökologischem Anbau, Acta Periodica

MÜTF (in press)

Magyarul

Bódi, Cs.: Ecological Farming II. (edited by Dr. Radics László) 5.

Qualification and Quality of Ecological Raw Materials and Processed

Food Stuffs, 5.4. Chapter: Baby food, Szaktudás Kiadó Ház, Budapest

(2002) p.526-531

Földes F. - Goda M. - **Bódi Cs.** - Tóásó Sz: Állattartó ökogazdaságok által igénybe vehető támogatások a nemzeti vidékfejlesztési tervben; Gazdálkodás 2005. 14. Special edition p.26-27

Földes F. – Goda M. – **Bódi Cs:** Kiskereskedelmi árstratégia az állati eredetű ökotermékek piacán, Élelmiszer, táplálkozás és marketing Vol.V. 1/2008. p.39-45, Kaposvár

PAPERS PUBLISHED IN PROCEEDINGS**In English**

Bódi Cs – Németh A. – Tóásó Sz: Marketing-channels of Ecological Originated Animal Products in Hungary (Poster); Sustain life secure survival II. Prague 2004. September 22-25.

In German

Bódi Cs: Konsumentenverhalten und Absatzkanäle bei Nahrungsmitteln aus ökologischem Anbau; Prague 2006. (Poster)

Bódi Cs: Vergleich von Konsumentenverhalten und Absatzkanäle bei ökologischen Nahrungsmitteln in Deutschland und Ungarn (A conference paper in German); Within the European Union III. International Conference, Mosonmagyaróvár, 2006. April 6-7.

In Hungarian

Bódi Cs – Földes F: Öko-élelmiszerekkel kapcsolatos fogyasztói szokások, termékpályák (Consumer Behaviour, Product Lines in Connection with Ecological Food Stuffs); a conference paper published in the journal *Gazdálkodás* after a scientific conference of PhD students, NyME Mosonmagyaróvár, 2005. October 14.