

QUALITATIVE STUDY OF PREFERENCES AND ATTITUDES TOWARDS HONEY CONSUMPTION IN HUNGARY

Titanilla Oravecz, Ildikó Kovács

Budapest Business School, Diósy Lajos street 22-24., Budapest, Hungary
e-mail: Oravecz.Titanilla@uni-bge.hu, Kovacs.Ildiko@uni-bge.hu

ABSTRACT

Honey is becoming increasingly popular among consumers for its health and nutritional benefits as well as several other functions. The survey identifies four main dimensions of honey-purchasing motivation: medical benefits of honey consumption, dietary quality, cosmetics and sweetener. There are very limited empirical analysis of the aspects of honey consumption. The present study contributes to fill this knowledge gap through a qualitative study of consumer perceptions, preferences and attitudes towards honey among Hungarian consumers through 86 in-depth interviews. The study identifies different consumer segments, which are also willing to pay premium prices for the Hungarian or local honey. Quality cues are defined by search attributes of the product (colour, taste, aroma, thickness), and ethical attributes (warranties, brand name, country-of-origin).

Keywords: honey consumption, consumer preferences, attitudes, qualitative study

1. INTRODUCTION

According to the Council Directive relating to honey of the European Union [1], „honey is the natural sweet substance produced by honey bees from the nectar of plants or from secretions of living parts of plants, which the bees collect, transform by combining with specific substances of their own, deposit, dehydrate, store and leave in the honey comb to ripen and mature.”

The chemical composition of honey is complex, containing approximately 181 substances including sugars, proteins, moisture, vitamins, minerals, 5-hydroxymethylfurfural (HMF), enzymes, flavonoids, phenolic acids and volatile compounds and must meet the compositional criteria laid down in the EU Council Directive relating to honey. The Directive also gives an exact definition of the types of honey products that can be sold under the given names and rules for labelling, presentation and information on origin [2]. Ref. [3] “Local Marketing of Honey” study described the honey market as a fragmented market, where the import and local producer honey compete.

Fresh, local honey is often (although not always) more highly valued than imported honey, and many beekeepers sell their product directly to consumers. The EU is one of the more viable honey producers in the globe, produce mixed flower honey in the highest volume.

The number of consumers following a healthy lifestyle has increased significantly in recent years, while the role of quality in the selection of products has increased [4], which is also reflected in conscious eating habits [5]. In addition to the growing demand for healthy food, the Hungarian National Beekeeping Association's actions to improve honey quality and the taking measures against honey counterfeiting also played a significant role in the increase in domestic honey consumption [6].

The image of consumers about honey has clearly improved. The interest in apiculture products has grown dynamically in recent years [7]. The consumption of honey is also increasing [8]. Annual honey consumption per capita rose from about 300 grams in 2010 to almost 800 grams by 2018 [9]. In addition, the range of beekeeping products is expanding year by year, with more and more high-quality honey made from special nectar. Experts predict a further increase in domestic honey demand, beside supply expansion. It is explained by the increasing awareness of consumers [10].

As acacia honey became a certified Hungarian speciality, it was associated with a high quality [11]. In Hungary the acacia honey is the variety of honey with the largest production and consumption [12]. There

are huge differences in quality between honey products, and consumers find difficult to differentiate the products [13] [14]. Ethical product characteristics, such as the origin of the product are also the focus of food consumption decisions [15].

In Hungary, the domestically produced honey is a suitable for an effective and successful marketing strategy [16] [17]. Since honey types differ from one country to another and in different regions in the same country due to floral origin, soil composition, season, environmental factors and treatment of beekeepers and other factors consequently, quality criteria differ from one honey type to another [18] [19]. Authentication of honey by its natural physicochemical properties, and other attributes is important to protect genuine unique quality honeys from fraud products and to create consumers trusts [20]. The survey of Ref. [21] identifies four main dimensions of honey-purchasing motivation: medical benefits of honey consumption, dietary quality, ethical character of honey and suitability with food consumption lifestyle.

2. MATERIALS AND METHODS

Our qualitative study was the first stage of a multi-stage research process. In the research approach of this empirical studies, we aimed to reveal information that helps to identify the most important marketing strategy decisions for the domestic beekeeping sector.

The purpose of the research was to explore qualitative information that helps domestic producers of honey in product development and sales issues. The semi-structured in-depth interviews provide a rich understanding of the subject.

The main topics of the in-depth interview guide were the following: honey buying and consumption habits, the attitudes towards domestic honey, attitudes related to honey consumption and the brand awareness of domestic producer honey.

The following filtering condition was applied: persons aged 18, participating in the consumption decision, consuming honey at least once a month. The data collection took place between March and April 2017, with 86 manuscripts in total being evaluated using a traditional content analysis method. The sampling technique was snowball sampling. The composition of the sample: we examined 86 in depth interview script, the number of male respondents 39, female 47. 7 respondent belongs to the 18-24, 17 to the 25-29, 27 were in 30-49 age group, 27 in the 50-64, and 8 was older than 65 years. Level of education: secondary education without graduation 18, secondary education with graduation 45, completed college or university, 23 persons.

3. RESULTS AND DISCUSSION

3.1. Associations with honey

In the first part of the interview, we asked the participants to formulate what they think of the word "honey", as illustrated in the word cloud of Figure 1.

It is clear that honey has a good evaluations of the respondents, as most associations have shown positive consumer attitudes.



Figure 1: Word associations with honey

The answers we received in our research were categorized into 14 categories (Figure 2). The number of references and their location were analysed. In the evaluation, only the first 5 spontaneous associations were considered for each interviewee, so a total of 430 references were analysed. Taking into account the frequency of all mention, the categories described above are the following:

Figure 2. Association categories with honey

Category	Share of mentions in total mentions (%)
Honey foods and drinks	21.6
Delicious, sweet taste	13.5
Associations related to nature	12.3
Healing, antibacterial effect	9.5
Christmas, advent, winter	8.6
Healthy food, favourable nutritional physiological effect	6.7
Other sensory characteristics: colour, scent, texture	6.7
Natural sugar substitute	5.3
Hungarian origin, Hungarian speciality	5.3
Winnie the Pooh	3.5
Associations related to beekeeping	2.8
Family, childhood	2.6
Expensive	0.7
Fattening	0.7

When hearing the word honey, most consumers associated it to a food or drink prepared with honey, usually the most common was the tea. The consumers also mentioned coffee, honey-buttered bread, cakes, salads, roasts, honey pálinka, and cakes prepared with honey. Associations linked with cold winter, advent preparation, Christmas and gingerbread baking were also numerous, typically mentioned in third, fourth, and fifth places. Most of the consumer associations discovered have described typical situations of honey consumption, such as "the family breakfast together", "the gingerbread baking at Advent with mom and grandma", and "the Christmas family lunch and dinner". Almost all respondents mentioned the savoury sweet taste of honey, but less than half of those surveyed mentioned the other sensory characteristics of honey, such as associations of the yellow colour, dense, sticky texture and pleasant floral scent of honey. The taste references are typically the first, second and third mentions, while the other attributes are in the third, fourth and fifth positions.

Associations with nature formed the third most mentioned category, a significant share of respondents mentioned sunlight, sunshine, forest, field, flowers, loud twittering and buzzing bees. Often the healing effect of honey was mentioned, especially in the case of sore throat and cold. There were a significant number of people who referred to bee-keeping associations, such as trotting, whining, hives or spikes, but Pooh bear was also mentioned several times among young people. There were only two rather negative associations; they were typically mentioned at last. One was the relatively high consumer price of honey and the other was the high energy content of honey.

Based on the in-depth interviews, we can conclude that the respondents have generally positive attitude towards honey. This is in line with previous research results of Ref. [22]. The research findings of Ref [12] related to the relationship between honey and health are confirmed by this research. The references to health and to the favourable nutritional and physiological effects of honey took more than 20% of the total number of mentions. These findings are in line with the results of Ref. [12] that consumers are aware of the interrelated concepts of honey and health. On the basis of the remarks, we can conclude that the respondents consider honey to be a healthy natural sugar substitute with a valuable content.

We consider it particularly important that many respondents highlighted honey of Hungarian origin as a particularly good quality honey. There were a significant number of respondents, especially in the older age group, who first mentioned the Hungarian beekeepers when formulating high-quality honey.

3. 2. Consumer habits

In the survey, we examined the occasions, events and situations are most commonly associated with the consumption of honey. The primary cause of the consumption of honey was its healing power, its beneficial nutritional and physiological properties and its sweetening effect. The reason for consumption in all of the above mentioned references is the medicinal effect of 39% sweetening 34%, health preservation 27%. Consumers used this type of segmentation in Pocol's and Marghias's (2008) research when investigating Romanian consumer habits [23].

Consumers, who count themselves health conscious prefer to use honey as a sweetener, as well as the natural origin and valuable content of honey. Those segments, who take care to preserve their health through their food consumption, typically consume honey on a regular basis, "daily", or "several times a week". Those who like honey because of their healing effect, occasionally but continuously throughout the year, do not only belong to those who consume honey in the case of cold, but are also used for other treatments such as anti-inflammatory or prophylaxis. "I use rapeseed for reflux complaints and I feel that it has worked perfectly so far," "rapeseed is good for the stomach,"

Spontaneous mentions also showed seasonal growth in honey consumption, with more than three-quarters of the consumers surveyed consuming more honey in the cold, autumn and winter periods than in the rest of the year. "The linden honey is very good for sore throat and cold! In case of cold, in the winter, you should put two or three tea spoons of honey into the tea which is not too hot, so you can replace the sugar." "Many people use it only for sweetening, although it is also effective against diseases such as sore throat." "We use linden honey in case of cold." A small group of respondents, typically old people, can categorize

the healing properties of several varieties of honey: "... acacia honey can generally be used for of all kinds of cold, sore throat. Chestnut honey helps prevent thrombosis, buckwheat honey is good for circulation, blood pressure lowering, while linden honey can be used for like insomnia, fever, but also cough."

According to Ref. [24], seasonality can be observed in relation to the habits of honey consumers. From September to the end of December, the purchase of honey significantly increases compared to the rest of the year. The honey is usually consumed in the form of hot tea with honey: "Usually I consume honey several times during the winter, when cold is common, because on the one hand it is extremely healthy on the other hand, if I am sick the honey-lemon-ginger tea is the first..." "Normally, I consume one to two spoons of honey a day, adding it to tea or to coffee as a sweetener, but when I'm sick, I consume more." Some of the respondents use honey for injuries, homemade healing, typically externally: "it is excellent for bruises and wounds", "honey has a beneficial effect on my daughter's troublesome skin and my wrinkles". Many respondents have classified honey as a medicine that, through its disinfectant effect, is well suited for the treatment and prevention of certain diseases: "Every morning, I eat a spoonful of honey. With this, I protect my health and preserve myself from diseases." Another distinct group of consumers also consumes significantly more honey seasonally, during the Advent holiday season and at Christmas, usually in the form of festive foods, drinks, various honey cakes and gingerbread. A significant proportion of respondents associated honey with a food consumed by the family together and with a pleasant food that reminds them of their childhood: "The common family Sunday morning without the honey milk and butter-honey cakes is unimaginable!", "I always remember my mother and my childhood about honey, it was so good..."

It was repeatedly stated that honey was typically consumed as a part of the breakfast, which is in line with Ref. [25] research. The majority of respondents regularly consume honey in the form of food, typically as part of the breakfast: "I don't think I could start better a Sunday morning with a family like eating a butter-honey cake!" Regarding the day period of meals, after breakfast, morning and afternoon snacks were described frequently as honey meals while lunch and dinner were mentioned the less. According to the results, very popular honey dishes are cakes, gingerbread, buttered honey bread or cakes. Honey is also used for preparing roasted, pickled meat, salads, sauces and dressings.

Regarding the form of consumption, all respondents regularly consume honey in some form of a beverage. The most preferred beverages are tea, coffee, milk, cocoa, lemonade, cocktails and various alcoholic beverages: honey wine, honey beer and honey pálinka: "honey pálinka is my favourite spirit, tasty, sweet yet strong", "the lemonade with honey is my favourite", "the honey wine is a real specialty".

Especially for younger respondents, it was used as a performance enhancer for greater mental, physical effort, sports, learning: "Nowadays, health conscious nutrition has invaded and some people are trying to consume as little carbohydrates, especially sugar, as possible. To boost performance, honey is the best natural remedy". Honey is not only consumed as food and drink by the respondents. One third also uses honey for beauty treatment in a wide variety of forms: shampoo, balm, shower gel, body lotion, hair dye, face cream, scrub, facial mask, massage cream, lipstick, honey fragrance and furniture care.

Aside from honey, propolis, pollen, beeswax and royal jelly were mentioned as bee products. It has been mentioned in relation to hive products that they are difficult to reach for those who do not go to places where they can meet with beekeepers. Despite the difficult access, these products are very popular among consumers: "we consume propolis on a weekly basis, it is said to be a universal remedy", "the pollen is a real vitamin bomb!" "If there is trouble, I always turn to the healing power of the bees for help."

As a drawback, the price of honey and its fattening effect were mentioned: "You should not overdo your consumption due to the high sugar content." "I try to consume the right amount of everything, not much, or little, so is honey."

Thus, most of the respondents consume honey primarily because they want to protect their health, to contribute to the healthy functioning of their body, and to improve their well-being. The members of the younger generation mainly use honey as sweeteners, while the older generation does not only like it because of its sweetening effect, but is consumed for health preservation and is preferred for its healing properties.

3.3. Honey variety preferences

During the interviews, we examined spontaneous mentions of the varieties of honeys. There were 258 mentions, out of these: 74 for acacia honey, 65 for flower honey, 42 for linden honey.

In addition to the most popular honey varieties, Hungarian honey specialties were also popular, such as various flavoured honey or honey with dried fruits and seeds. The variety of flavoured honey can be found at the producers. The respondents mentioned the following products: elderberry, lemon grass, chilli pepper, garlic, dill, cinnamon and mint honey. Among the honey varieties made with the addition of dried fruits and seeds the following were mentioned: mixed seeds with acacia honey, walnuts, hazelnuts, poppy seed, coffee, candied orange and pumpkin seed honey.

Acacia honey is the most popular flavour: "The acacia honey has a pleasant texture and great taste, I use it almost every day!" "I prefer the acacia honey. I tried the rest, but the acacia honey has the best taste." "The price of acacia honey is being hampered by its price" "Unfortunately, I buy the cheaper variety. I would buy Acacia, but the mixed flower honey is cheaper."

Adhering to the usual flavours is typical: "I noticed that in my family and among my friends, these are the varieties of honey that they use and buy again, so they do not change to another type of honey. To tell you the truth, I rarely buy a different kind of honey, I don't know why this is so, just the habit."

Consumers prefer to consume well-known honey of identifiable origin, typically preferring honey from a producer. Reliability and quality were highlighted as reasons. "I prefer domestic honey, because the honey that the bees collect from the plants in our environment is better for our body and I support the Hungarian economy, I trust the Hungarian products better." "Producers are more reliable, we get quality", "personal guarantee and trust", "honey from a producer is better and more beautiful".

The local beekeepers are considered to be of reliable origin, and the Hungarian honey is clearly described as a high quality.

4. CONCLUSIONS

In our research, our main goal was to get to know consumer associations, the most notable features of consumer preferences, and to analyse the consumer perception of Hungarian honey. We analysed the preferences of 86 consumers towards honey consumption. Based on our results, it can be stated that when the word honey is used, consumer associations are mainly referred to as honey dishes and drinks, pleasant taste and health. For the majority of the respondents, the domestic honey reminds us of good quality and reliability. It is important that the purchased honey is of domestic origin, it is also important to know the producer. The respondents tend to turn to the Hungarian producers' honeys that are considered to be healthier, better-tasted and also certified. This tendency is a huge opportunity for the Hungarian beekeeping sector. Effective labelling is important. Its exact geographical origin gives the consumer confidence in the product. For another important segment of honey consumers, honey is consumed only seasonally or while being ill. The most important factors for them are easy availability and price. The most popular among the honey varieties is acacia honey, which has been mentioned as the favourite variety for all segments.

The present research confirms that consumers' image of honey is clearly positive. Consumers consider honey to be a healthy food and natural sweetener, which, besides its traditional character, carries unique values. In terms of areas of application, health preservation, sweetening and cosmetic use have also emerged.

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