THE POSITION OF THE EU ORGANIC LABEL AMONG HUNGARIAN CONSUMERS - FACTORS OF AWARENESS AND REGULAR SHOPPING

ZALÁN MÁRK MARÓ – LILI JANTYIK – ÁRON TÖRÖK

Corvinus University of Budapest
Department of Agricultural Economics and Rural Development
1093 Budapest Fővám tér 8.
zalan.mar@uni-corvinus.hu

ABSTRACT
The European Union's Common Agricultural Policy (CAP) has undergone many reforms and - over the past decades - has reached a level where food security issues are basic criteria for the European food production. From the beginning of the 1990s, the EU has been trying to reinforce this positive overall impression with quality systems which are regulated at the Community level. Basically, European decision-makers regard two areas as being of paramount importance: geographical indication and organic food. Each system has separate certifications and labels to help consumers make their decisions. Despite the fact that these products are also important factors of EU trade policy and in the case of geographical indications in Hungary, there has been a separate Origin Protection Program, the relationship between Central and Eastern Europe consumers with this system is a rather undiscovered area. That’s why the aim of this study is to investigate the awareness of the Hungarian consumers about the EU organic label and the factors that determine the awareness of the EU organic logo and the regular purchases. Not surprisingly, the awareness of the EU organic label and is still low despite the growing tendency in the recent years. The survey conducted in Hungary is based on a sample with 1,019 consumers. The online consumer survey was implemented during the second half of 2017. Results show that among the European food quality labels the organic label is one of the most recognized ones in Hungary, but its average awareness is still very low: less than every fourth Hungarian consumer knows what this label is for. The awareness of the EU organic logo is mainly determined by the sex (male), diet (fish consumption, (ovo)-vegetarian) and the place of purchase (alternative routes and internet). Regarding regular purchases, trust in the label and the system is crucial next to the age (younger ones), and purchase (supermarket). Therefore, in order to increase the sales of products with EU organic label, it is essential to sell bio food more widely, which will enable consumers to know more about organic products and the EU organic logo; as well as the application of a proper marketing strategy by companies to reach their potential target group, mainly the younger consumers. In any case, the future goal is to raise the awareness of bio and other quality systems (e.g. GI) products because the higher level of consumers’ awareness and trust can lead to a higher level of consumer willingness to pay. And this results in mutual benefit for both producers and consumers.

Keywords: organic, label, consumers

INTRODUCTION

In response to the health and environmental impacts of pesticides, genetically modified organisms and various food safety scandals, the demand for bio-based foods has grown spectacularly in recent decades. The supply side also adapts to the new needs of consumers, but the increasingly long supply chains and information asymmetries make it difficult for consumers to make decisions. The labels on the food packaging have become inevitable in the food sector, which can reduce information asymmetry and allow consumers to make more informed food purchasing decisions.

Community regulation of bio products was born in 1991 in the European Union, and the current legislation has been in force since 2018. The essence of the regulation is that the EU organic label should be marked for all pre-packaged organic food that is intended to be a bio product.
In Hungary, two state-accredited certification bodies are involved in the verification of the EU bio-label authorization (Biokontroll Hungária Nonprofit Kft. and Hungária Öko Garancia Kft.). Both organizations have their own logo, so in practice - in the case of bio-based products of Hungarian origin - the EU and one of the Hungarian certification labels are simultaneously on the packaging of the bio food (Figure 1).

![Organic labels in Hungary](image1.jpg)

**Figure 1: Organic labels in Hungary**  Note: The EU bio logo and the logos of Biokontroll Hungária Nonprofit Kft. and Hungária Öko Garancia Kft. Source: Commission Regulation No 271/2010 and websites of Hungarian certification bodies

In Hungary, the proportion of bio-areas is very low compared to the EU average and occupies only the 20th place among the 28 Member States of the European Union. Furthermore, the consumption of organic products is also very low (Figure 2), totalling EUR 3.04/person/year, whereas the European average is EUR 50.12/person/year.

![The consumption of organic food per country in the EU](image2.jpg)

**Figure 2: The consumption of organic food per country in the EU (EUR/person/year), 2016 based on FiBL (2019) data**

In Hungarian-language literature, there are not many articles on this topic. Most of the articles are related to health-conscious nutrition (e.g. GÁL ET AL., 2017; MALOTA ET AL., 2019), and to the marketing opportunities of organic labels as food quality markers (among others: KISS ET AL., 2016).

JANSSEN AND HAMM (2012) investigated the awareness of the EU bio label besides some national certifications. The research shows that the awareness of the EU organic label is the highest in Italy (nearly 80%) and the lowest in the UK (around 10%). In six countries (Estonia, France, Germany, Italy, Poland and the UK), ZANDER (2014) also investigated the awareness of the EU bio logo. The results show that the logo's awareness is low and
that only 15% of the respondents knew the meaning of the logo. Binary logistic regression showed that the label knowledge is higher for consumers who regularly buy organic food.

One of the most often examined criteria is the role of gender, and the vast majority of research results confirm that basically women prefer food from organic farming (Koivisto et al., 2003; Stobbelaar et al., 2007; etc.). There were contradictory results in the literature regarding age. Some research has found older age groups more susceptible to buying organic products (Roddy et al., 1996; Schifferstein and Oude op Huus, 1998); however, recent results have shown that younger generations are more likely to buy organic products (Magnusson et al., 2001).

Overall, it can be stated that there are great differences between the socio-demographic and economic characteristics of bio-products, both in space and in time. After a targeted review of previous literature, it can be generally stated that organic products are basically preferred by women, families, people living in the city and those who have higher incomes.

**MATERIAL AND METHOD**

The data used in the study was acquired in the second half of 2017, within the framework of an international research (in addition to Hungary in six other European countries) by the Strength2Food H2020.

Table 1 summarizes the most important characteristics of respondents. Regarding representativeness, it can be said that the sample is almost representative in terms of gender and age, while in the case of the place of residence the respondents from the village are under-represented, while in the case of the higher education, the highly-educated are overrepresented.

**Table 1: The most important socio-demographic and economic characteristics of the respondents participating in the survey based on survey and KSH (2013)**

|                        | Survey | National census |
|------------------------|--------|-----------------|
| All respondents/Population | 1 019  | 9 937 628       |
| Involved respondents    | 875    | -               |
| Gender                  |        |                 |
| Female (%)              | 50,03  | 52,52           |
| Male (%)                | 49,97  | 47,48           |
| Average age (year)      | 41,93  | 41,39           |
| Location                |        |                 |
| Rural area (%)          | 20,35  | 30,53           |
| Urban medium town (%)   | 37,94  | 34,35           |
| City (%)                | 41,71  | 35,13           |
| Education               |        |                 |
| Lower secondary/primary education or below (%) | 2,63   | 31,73           |
| Upper secondary education, university or college entrance qualification (e.g. A-levels, vocational certificate, technical diploma,) (%) | 55,89  | 51,31           |
| Bachelor’s degree or equivalent level (%) | 29,14  | 10,10           |
| Master, Postgraduate or doctoral degree (%) | 12,34  | 6,68            |
| Average household income (HUF) | 255 694 | 196 076        |
| Number of children      | 0,66   | 1,07            |
RESULTS

According to preliminary expectations, nearly one quarter of respondents know the EU bio label. The respondents have a positive opinion on organics. On the 5-level Likert scale, the highest average was 4.02, indicating that respondents find the label reliable. This should be emphasized depending on whether (bio) foods are basically trusted products.

The majority of respondents (44%) ignored organic products when shopping because they did not have the opportunity to buy EU bio-certified food or they were available in a small selection in the store where they were purchasing food (Table 7). All this proves that in Hungary bio-products are currently in a small number of shops and are available in a relatively small range - compared to conventional foods. Respondents do not pay enough attention and time to study food labels.

Taking socio-demographic criteria into account, only the gender of the respondent was statistically significant in our survey, and we can conclude that men are more familiar with the label than women. The awareness of the label is determined by the purchase channel through which the consumer purchases the EU labelled organic product. The awareness of the label is higher of those consumers who buy food mainly in producer markets, department stores, biostores, online, directly from the producer, or through other alternative channels. The most important of these is the purchase through other alternative channels, as there is a five-fold increase in the chances of anyone aware the EU organic label. Interestingly, shopping at a bio store determines the awareness of the label to a lesser extent than buying online. Regular fish consumers are aware of the logo almost twice as much as those who do not eat fish, and (ovo)vegetarians are aware of the label better than non-ovo vegetarians (Table 2).

Table 2: Factors determining the awareness of the bio label odds ratios, z values in parentheses. The table contains only significant results.

| EU organic label recognition | Gender  | 0.660  |
|-----------------------------|---------|--------|
|                             | (2.33)**|
| Farmers’ market             | 1.716   |
|                             | (2.49)**|
| Department store            | 1.661   |
|                             | (2.14)**|
| Organic store               | 2.678   |
|                             | (2.76)***|
| Online                      | 3.021   |
|                             | (2.68)***|
| Directly from the producer   | 2.059   |
|                             | (2.66)***|
| Other alternative            | 5.316   |
|                             | (2.50)**|
| Eating fish                 | 1.772   |
|                             | (2.81)***|
| Eating meat products        | 0.408   |
|                             | (2.34)**|
| Eating eggs                 | 0.496   |
|                             | (1.73)* |

Significance levels: * p<0,1; ** p<0,05; *** p<0,01
The viability of the EU organic label is mainly determined by how often consumers are willing to buy such labelled products (Table 3). Among the socio-demographic factors, only the respondent's age was statistically significant in the model. The older you are, the less likely you are to become a regular bio buyer. It can be concluded from the results that companies - that sell bio-products - have to target mainly younger generations. Shopping from supermarkets, discount stores, producer markets, hypermarkets, and directly from the producers are the most important factors. If a consumer trusts in EU bio-certification, there is a 6.7-fold greater chance of buying such a product on a regular basis than if he had reservations about the label. In this case, the diet has no statistically significant role.

Table 3: Factors determining regular purchases. Odds ratios, z values in parentheses. 
The table contains only significant results.

| Factor                        | Odds ratio | z value | Significance |
|-------------------------------|------------|---------|--------------|
| Regular buyer                 | 0.964      | (2.02)**| p<0.05       |
| Age                           |            |         |              |
| Supermarket                   | 5.899      | (2.82)**| p<0.01       |
| Discount                      | 4.589      | (2.14)**| p<0.01       |
| Producer market               | 5.086      | (2.85)**| p<0.01       |
| Department store              | 4.692      | (2.39)**| p<0.01       |
| Hypermarket                   | 4.084      | (2.26)**| p<0.01       |
| Directly from the producer    | 4.272      | (2.09)**| p<0.01       |
| Trust                         | 6.692      | (3.32)**| p<0.01       |

Significance levels: * p<0.1; ** p<0.05; *** p<0.01

CONCLUSIONS

The awareness of the EU organic label in Hungary is relatively low, but there is an increasing trend and has been approaching the EU average in recent years. Overall nowadays, the awareness of the EU labeled organic food is the highest of those consumers who buy food in alternative ways - not in supermarkets and hypermarkets. Regular customers of such products are mostly younger men who trust better in the quality systems.

In Hungary the consumption of organic food is likely to increase if consumers have access to these products in a wider range and through more sales channels. All this is confirmed by the fact that respondents do not buy bio labeled products because they do not have access to these products during their food purchases. In any case, the future goal is to raise the awareness of bio products and the knowledge of the European quality system, because we could achieve a higher consumption by building consumer trust.

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