



**Doctoral School of
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THESIS SUMMARY

Lili Jantyk

for the Ph.D. dissertation titled

**The food quality schemes of the European Union and
their implications on the Hungarian market**

Supervisor:

Áron Török, PhD

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Department of Agricultural Economics

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I. Research history and explanation of the subject

As early as in 1970, Akerlof defined the concept and problems of information asymmetry, which are still very typical of today's food market. Labelling food products to give information to consumers developed long time ago, especially to show the quality and quantity of the goods.

Globalisation has increased the length of supply chains in the food trade and products may travel great distances before they get to the consumer. In many cases, even the basic foodstuffs come from outside the European Union, where producers work with a completely different regulatory framework. On the positive side, the choice of food available in each country has increased and producers can deliver their products to a much larger market but the negative result is that the traceability of product quality and origin has decreased and competition between producers has increased. Long-distance transport of certain raw materials can also be considered harmful from environmental point of view. Simultaneously with liberalisation of markets, food-related scandals and problems also escalated (Juhász et. al., 2010). For example, the case commonly referred to as the "horsemeat scandal". In 2012, the European food market was hit by a food

fraud: horsemeat was found in pre-prepared foods, without any declaration on the package (Agnoli et al. 2016). Due to faster flow of information and similar food scandals, more and more conscious customers appeared. Conscious consumers are increasingly aware of their rights and opportunities, so they explicitly resent incorrect information, misleading and scandals (Törőcsik, 2003). If we look at consumers' attitudes and motivations, two main lines of conscious consumption can be distinguished: in some cases, consumers focus on their own interests (quality awareness, price awareness, brand awareness, value awareness, consumer rights awareness, health awareness, nutrition awareness), while in others they focus on the interests of others (environmental awareness, social awareness, ethical consumption, responsible consumption, sustainable consumption) (Dudás, 2011). However, no matter how much consumers become more aware, they can only assert their needs in case they have enough information about the product they want to buy.

Most characteristics of foods can only be known after purchase and some of them can only be learned during laboratory testing. Literature classifies information on product characteristics into three groups: "search characteristics" (e.g., colour), "experiential characteristics" (e.g., taste), "trust characteristics" (e.g., nutritional

value, food safety) (Darby & Karni, 1973). The difference among the categories is determined by how difficult it is for the consumer to obtain information. Characteristics classified as trusted can often only be determined under laboratory conditions. This can be mitigated by, among other things, various trademarks and certificates that provide important information to the consumer.

All in all, the topic of food quality schemes and labels also has economic, social and environmental relevance. From economic point of view, food quality labels can be a solution in which producers can use the marketing tool to increase the value of their goods and conscious consumers get extra information about the products. Their social impact is to protect the producers of a unique product from fraud and to help maintain traditional production methods. Different organic labels can be very important from environmental point of view, but in some cases, traditional production may be more environmentally friendly than large industrial production. Geographical indications (GI) also guarantee the place where products are produced, so that, for example, European consumers could choose to buy rice produced in Europe over rice produced in Asia, thus reducing the route of the product (Bellassen et al., 2022).

In my research, I focus on the effect of the European Union's food

quality schemes in Hungary, specifically with the demand and supply side characteristics of GI. These indications are optional¹, so they can serve as a voluntary distinction and added value when appearing on products. Although several studies have examined quality systems in food market, research in this area is still very incomplete, especially regarding Hungarian market. The labels examined in the research are regulated by the European Union, so in the EU, they have a uniform regulatory and usage framework. Thanks to this, the Hungarian results will be easily comparable with similar research studies in other EU countries.

The European Union has been regulating the protection and constant quality of quality foods with unique characteristics for more than 25 years. The quality logos certify special traditions and geographical origin of food and other agricultural products produced in the European Union or in other countries. GI provides intellectual property rights for products whose quality is specifically connected to the production area within the EU and in non-EU countries where a specific protection agreement has been signed. The EU's GI system protects the names of products that come from certain regions and have specific characteristics or good

¹ Of course if the producer/seller wants to use the protected name, the label becomes obligatory.

reputation in relation to the production area. With regards to the GI food category, we distinguish two groups with two different logos:

- **Protected designation of origin (PDO)**
- **Protected geographical indication (PGI)**

II. Methods

My doctoral dissertation is article-based. Thus, the structure of the thesis is aligned with this. After a comprehensive theoretical summary and processing of the previous literature (which is mostly covered in my first article), I analysed the demand and the supply side of the GI food market in Hungary (second and third article) . On the demand side I concentrated the topics of the awareness of GI labels, the usage of labels during purchase and the trust in the labels. The focus on the supply side was on the market size and the price premium of the GI products.

In my final research (forth article), I look internationally at whether GI-labelled foods can provide a comparative advantage to individual countries. So, for example, is it worthwhile for Hungary to invest resources in these marks in order to be more competitive in the international market. In this study, we examined other factors

in addition to the GI label for comparability. Table 1. shows how I divided the topic into parts. It is important to mention that in these research studies we often examined issues outside the main topic of this dissertation. This table summarizes the elements that form the main part of the dissertation.

Table 1. Research frame

Topic	Literature review	Demand side	Supply side	International market
Subject of investigation	Collect empirical studies focusing on the economic impact of GI Market size, Price premium Impacts on rural development.	Awareness of labels Usage of labels when making a purchase Trust in labels	Presence of labelled products in discount stores Price premium for labelled products in discount stores	Is it worthwhile for the countries to devote their resources to the GI label? Number of beers with geographical indications impact on comparative advantages
Methodology	Systematic literature review	Questionnaire Descriptive statistical analysis Binary logistic regression	Descriptive statistical analysis Mystery shopping	Descriptive analysis and panel regression
Research questions	What are the most important results in the topic of market size, price premium and impacts on rural development in terms of GI products?	How well-known are the labels of EU GI products among Hungarian consumers, and how well do they know their meaning? What is the level of trust in the labelling of EU GI products, and what influences this trust? How often do consumers buy EU GI certified products, and what affects them?	In the Hungarian market, what is the market size of products with geographical indication, examining the example of discount stores? In Hungarian discount stores, what is the price premium of products with a Hungarian geographical indication compared to their direct substitutes, estimated from below?	Are geographical indications positively related to comparative advantages in the beer market?

III. The results of the thesis

In my thesis, I was looking for answers to the following questions:

1. How well-known are the labels of EU GI products among Hungarian consumers, and how well do they know their meaning?

The awareness of the GI labels in Hungary is definitely low (in the best case, it was 31%), even if this number is not much lower than the average in the EU. This number is probably too low for these labels to be effective marketing tools for producers. It also includes the fact that only 50% of those who said they know the label know at least approximately the meaning of the label. Can you build a marketing campaign currently on these markings? Probably not an effective one but what gives hope is that awareness of all three labels compared to previous surveys is constantly increasing. The EU focuses on GI products, so this growth is expected to be continued. So far, the EU has completed more than 30 international agreements, which allow the recognition of many EU GI outside the boundaries of the EU and the recognition of non-EU GI inside the territories of the EU. GI represent an increasingly important aspect of trade negotiations between the EU and other countries. The Commission separates around €50 million year after year to

support quality products in the EU and all over the world. Taking this into account, these labels can play an important role in the food markets in the near future.

2. What is the level of trust in the labelling of EU GI products, and what influences this trust?

About half of the respondents said that they trust the mark. When we analysed the possible variables, which can influence trust, we came to the conclusion that knowledge of logos is important because if someone knows the label, they have more than three times the chance to trust them, while in terms of meaning, the chance is almost double. Based on the research, we can say that gender, education and age does not affect trust in EU GI labels. In the case of place of residence, it can be said that someone who lives in a more urban environment trusts less in GI labels. All in all, consumer education is most needed to build confidence in GI, as those who recognize the labels on food packaging or are aware of what those labels mean will treat these products with much greater confidence.

3. How often do consumers buy EU GI certified products, and what affects it?

More than 35% of those surveyed are regular customers of GI-labelled products. The frequency of purchases is mostly determined by consumer confidence (the result is not significant for the PDO). Women become much fewer regular customers (not significant for the PGI). In terms of age, the older a consumer is the less likely it is to become a regular buyer (not significant for PDO), while residents of rural, smaller settlements are more loyal buyers of PGI products. The highest level of education has no detectable effect here either. So, in this topic also, we have to repeat that the most important thing is to inform consumers as widely as possible.

4. In the Hungarian market, what is the market size of products with geographical indication, examining the example of discount stores?

The number of GI products available in Hungarian discounts is limited, there are an average of 11 products per store. The supply is fairly constant; however, even though there are only a limited number of GI products on the shelves, they are at least always available to consumers and are part of the chains' core product portfolio. However, the number of GI products usually increases during the thematic days (e.g., Greek days). We can see that the supply is very limited for GI products, so buyers rarely meet face

to face with the label, they are even less likely to find out about the meaning of the markings on their own. Targeted information on GI labels is needed for consumers, for that they start to appreciate them.

5. In Hungarian discount stores, what is the price premium of products with a geographical indication compared to their direct substitutes, estimated from below?

The average price premium for GI products is 29% in the Aldi, 46% in the Penny Market and the highest was in Lidl with 54%. Overall, the average premium was around 43%. It is also important to mention that in addition to supply, prices did not really change during the observations. Although the price of some products may also change during promotional periods, consumers can plan to purchase GI products in advance. On the other hand, discount stores provide a continuous market for producers as well.

6. Are geographical indications positively related to comparative advantages in the beer market?

Our results show that the number of GI-registered beers is positively related to comparative advantages. Countries with traditional beer products closely linked to their place of origin are usually with a higher level of comparative advantages as the

number of GI beers positively determines SRCA indices. From this, it can be concluded that it is not pointless to promote the increase in the number of GI products and devote resources to GI labels.

All in all, the use of EU food quality labels can be effective and bring mutual benefits to all market participants. The key to this is to make consumers know, understand and trust these labels. This is the only way to get people to consciously start looking for foods with these labels when they purchase foods. Improving consumer information on the labelling of foodstuffs with a geographical indication has a key role to play in this, whereas these systems have been introduced in the European Union for 30 years, but still only a small percentage of buyers recognize these logos and even fewer understand the exact meaning of these labels. Not only should these products be promoted at the EU level but it is also in the interest of all Member States, as the study in the dissertation has shown that increasing the number of GI products also increases the comparative advantage. There are also government programs in Hungary, which are mainly concerned with increasing the number of Hungarian GI products but in addition to this, resources must be devoted to expanding the knowledge of consumers, which can also strengthen the trust and knowledge of the GI system in Hungary.

Attitudes of customers towards food quality programs need to continue to be monitored, as the various governmental and EU initiatives can only achieve their goal if consumers prefer products with GI when purchasing, because they understand and trust these indications.

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V. List of own (or co-authored) publications related to the topic

Articles of the dissertation

- Török, Á., Jantyik, L., Maró, Z. M., Moir, H. V. J., (2020). Understanding the Real-World Impact of Geographical Indications: A Critical Review of the Empirical Economic Literature, SUSTAINABILITY 12 : 22 Paper: 9434 , 24 p.

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Török, Á., Szerletics, Á., Jantyk, L., (2020). Factors Influencing Competitiveness in the Global Beer Trade SUSTAINABILITY 12 : 15 Paper: 5957 , 15 p.

Other Articles related to the topic

Jantyk, Lili. (2021). “Case Study on the Registration of Nagykun Rice PGI”. Review on Agriculture and Rural Development 10 (1-2):30-35. <https://doi.org/10.14232/rard.2021.1-2.30-35>.

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