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## Article

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## **THE SYSTEM OF THE GEOGRAPHICAL INDICATION – IMPORTANT COMPONENT OF THE POLITICS OF THE CONSUMERS' PROTECTION IN EUROPEAN UNION**

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### **Abstract**

The paper deals with the use and diffusion of the geographical indication in the European Union countries, having as objective the protection of the products' names, which are registered as Protected Geographical Indication (PGI) and Protected Designation of Origin (PDO) labels. The reason for treating this theme started from the fact that the level of knowledge of the system and its symbols by the consumers is very low. In the introductory part, specification of surveyed topic is given and importance of consumer education and information is highlighted. Empirical research is based on two approaches. First, 1114 product names from DOOR database (Database for agricultural products and foodstuffs in EU countries) were analysed in order to investigate the frequency of labels utilization by country and product classes, cluster analysis was applied to show the labels distribution by countries. Dominant countries in number of labels are Italy, France and Spain having registered over 50 % of all products. The most frequent product class is Fruits, vegetables and cereals for PGI and Cheeses for PDO. The second approach reflects consumer view on the issue; survey of 250 consumers in the Czech Republic was carried out with the purpose to identify awareness and perceived credibility of labels. Findings reveal a low awareness of labels, credibility of labels is influenced by their low familiarity. The main problem is lack of information. Respondents show interest in getting information regarding this topic. Quality labels have potential to communicate with consumers and facilitate their food purchases, but it is necessary to improve their promotion.

**Keywords:** European Union quality scheme, Protected Geographical Indication, Protected Designation of Origin, quality labels, food products, agricultural products, consumer education, consumer information, Czech Republic.

**JEL Classification:** C38, D18, L15, M31, Q18

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### **Introduction**

The paper is focused on Protected Geographical Indication and Protected Designation of Origin labels included in European Union quality schemes. It aims at analysing the labels

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utilization and familiarity in European Union (EU) countries. High quality of European food is a key advantage for European agriculture (Grunert, 2005). Vital part of EU agricultural policy is an effort to improve food quality and safety. At country level, the European Union prohibits counterfeit products at all levels: import, manufacture, distribution and marketing. The purpose is to protect the original products, well-known registered marks, thus guaranteeing a fundamental right of the consumer: quality. (Burghelea, 2010) In order to allow producers to use the added value of their products and to facilitate consumers' choice of food products, since 1992, the EU has established quality labels system known as Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Speciality Guaranteed (TSG) to protect the names of these products. The reason for that was to give a legal protection of a famous agricultural and food products made in EU against unfair practices, e.g. imitations of those products, and to eliminate the misleading of consumers (EUFIC, 2013; European Commission, 2013b; O'Connor and Company, 2005).

PGI covers agricultural products and foodstuffs closely linked to the geographical area. At least one of the stages of production, processing or preparation takes place in the area. PDO indicates agricultural products and foodstuffs which are produced, processed and prepared in a given geographical area using recognised know-how. The basic EU legislation on quality labels scheme is Regulation (EU) No 1151/2012 of the European Parliament and of the Council of 21 November 2012 on quality schemes for agricultural products and foodstuffs. PDO and PGI cover also wine and spirits, however there are different rules for those products - Regulation (EC) No 1234/2007 for wines, Regulation (EEC) No 1601/91 for aromatized wine products, and Regulation (EC) No 110/2008 for spirits. Agricultural products and foodstuffs registered as PGI or PDO are included in Database of Origin and Registration (DOOR database). Geographical indications protected in the European Community for wines are listed in E-BACCHUS database, geographical indications for spirits are included in E-SPIRIT-DRINKS database. The third type of label included in EU quality schemes is Traditional Speciality Guaranteed (TSG), which highlights a product's traditional character, either in the composition or means of production, usage on the market have to be during at least 30 years (European Commission, 2013a; European Commission, 2013b; EUFIC, 2013). In the paper, the attention is given only to PGI and PDO labels; we do not analyse product names registered as TSG because of their low share (as compared with PDO and PGI) in total amount of registered products.

Consumers in EU show growing interest in the quality as well as traditional products, they are also interested in information about origin and quality of purchased goods. The EU quality schemes aim to provide consumers with clear information on the product origin or speciality character, enabling them to make more informed purchases and the best possible choices (Verbeke, et al., 2012). Offering food and agricultural products with identifiable specific characteristics as well as providing complete and accurate information can lead to reduce consumer uncertainty about food quality and to purchasing products that meet customer needs, resulting in customer satisfaction. Use of the approved PGI and PDO logos enables producers to inform their consumers of the quality and authenticity of their products, allowing informed choice. More about consumer protection in terms of management system's describes Sitnikov and Bocean (2010).

The aim of the paper is to show the degree of PGI and PDO labels utilization in EU countries and on the example of selected EU country (the Czech Republic) demonstrate

consumer awareness and perceived credibility of the labels. In accordance with these purposes, the paper is structured as follows: In the first part of the paper, the importance of consumer education and information in this topic is explained, followed by empirical research results. Analysis is based on two approaches. First, PGI and PDO labels registered in DOOR database are analysed in order to investigate the degree of labels utilization in EU countries. The second approach reflects consumer view on the issue; survey of consumers in the Czech Republic was carried out with the purpose to identify awareness and perceived credibility of labels.

### **1. Consumer education and information**

There are many food producers in the market, quality of their products is diverse. Customers feel asymmetric information regarding food products and their quality. Due to the existence of massive amount of products and variations in products quality, consumers are not always capable of efficiently satisfying their personal needs. Not every consumer is able to filter the influences coming from the industry and the advertising sector. Consumers require information, counselling and education in order to acknowledge the differences between products and their quality, in order to become more selective and truly satisfy their needs (Dinu, et al., 2010). It is evident that it is necessary to reduce consumer uncertainty about food quality and provide them relevant information in an understandable form (van Rijswijk and Frewer, 2008). One possibility how minimize the information asymmetry is to use the official quality labels. Through the official quality labels, producers can offer clearer information about quality of their products to the customers. The role of consumer education in this area is especially important because consumers are not very knowledgeable about the quality labels.

The right to education and information is one of the most important consumer's rights. It plays a key role in achieving all other consumer's rights, only through education and information consumers will be able to exercise the full freedom of informed choice. It means, consumers must acquire the necessary competences and instruments in order to fulfil their role in modern economy. They must be informed, educated, trained and instructed on how they can assess and evaluate products. Modern consumers do need guarantees of purchased products. According to Centre for Disease Control and Prevention (2006), consumers should have the knowledge, as well as the means, to make informed food choices. Information should be accurate in order to be useful and accessible for consumers. Information exists in different forms and from various sources, including those offered by the producer, consumer organizations and independent certification bodies. Consumers receive information through award systems, certification and labelling, or business ethics certificates issued by third parties. Labelling must be applied in an objective, transparent, credible and non-discriminatory way, in compliance with international obligations and applicable EU competition rules (Dinu, 2010; 2012; Dragomir and Anghel, 2011).

According to Jarva (2011), consumer education is defined in several documents as practical, normative education. This education, however, cannot consist of preaching and learning certain commandments on how to be a good consumer. The changing situation of the consumer preconditions a need for a deep understanding of how and why consumers consume, what happens in their minds and why they act. The process of decision-making and action is taken as a core concept of the new approach to consumer education.

Food and Agricultural Organization of the United Nations (2001) states, that broad goals of Consumer Education Programmes (CEPs) and actions needed to increase effectiveness include: 1) To bring about appropriate and meaningful changes in knowledge, attitudes and dietary practices which will result in improved nutritional status; 2) To empower consumers to have full knowledge about the nutritional qualities of the foods they consume; and 3) To protect the consumer from incorrect commercial information with respect to the nutritional qualities of foods. To increase effectiveness of such a campaign, they need to be well planned, implemented, monitored and evaluated; consider social and cultural relevance of the messages and the way in which it is delivered; the programme design should reflect understanding of the social, economic and cultural determinants of current food, health and nutritional behaviour. As a strong new trend, the use of social marketing methods would be recommended.

Consumers should have the knowledge, as well as the means, to make informed food choices. However, it is recognised that consumers are motivated by different drivers when purchasing food. Food purchasing behaviour goes hand in hand with availability and affordability, often irrespective of the knowledge of healthy and quality food choices. The credibility of information sources thus strongly comes into focus (Schönfeldt and Hall, 2012).

## **2. Methodology**

The study was carried out in order to investigate the utilization of PGI and PDO labels registered in DOOR database for agricultural products and foodstuffs in EU countries. An additional research purpose was to identify awareness and perceived credibility of these labels by consumers in selected EU country, in the Czech Republic. In accordance with the above mentioned research purposes, the research study was divided into two parts. In the first part, secondary data from DOOR database were analysed, the second part of the research is based on primary data obtained by survey method.

The DOOR database includes a list of product names (agricultural products and foodstuffs) registered as PGI, PDO or TSG as well as names for which registration has been applied. In our analysis, the attention was given only to PGI and PDO labels; we do not work with TSG labels because of their low share in total amount of registered product names. We have to notice, in the database are not only European countries, but also China represented with 10 own products certified with PDO and PGI labels, and Vietnam, Colombia, Thailand and India with one registered product name (European Commission, 2013c). We were focusing on European Union members only.

To 15<sup>th</sup> September 2013, DOOR database included total number of 1371 product names registered, submitted or published as PGI and PDO in EU countries (European Commission, 2013c). There is not sure, if product names on waiting list (submitted or published applications) will be accepted for registration, therefore, in the analysis we have calculated with sample of registered items only, i.e. 1114 items of PGI and PDO labels. As criteria of analysis we set country of origin, type of label and product classes. Specific research purposes were as follows:

- To identify the frequency of PGI and PDO labels utilization,
- to compare the PGI and PDO labels utilization according to EU countries,
- and to compare the PGI and PDO labels utilization according to product classes.

In data analysis, we proceeded descriptive statistics and contingency tables, where we tested relations with Chi-square test. Results are also illustrated by dendrograms as an output of cluster analysis. Cluster analysis is a multidimensional statistical method used to classify the objects. The cluster analysis helps to assign observed units into several groups in such matter that most similar units are included in the some group (cluster) and conversely so that the units of individual clusters differ as much as possible. Individual steps of the cluster analysis differ depending on how the „closeness“ or „distance“ of the units is perceived within the groups, also depending whether the set of units is gradually divided, separated or conversely composed, connected according to a selected criteria (Everitt, 2011).

In the second part of the study, survey was carried out with questioning method based on a structured questionnaire. In March and April 2013, a quota sample of 250 respondents (quotas by gender and age) from the Czech Republic was reached. Specific research purposes were as follows:

- To identify the spontaneous and aided consumers' awareness of PGI and PDO labels,
- to analyse perceived credibility of PGI and PDO labels,
- to investigate the perceived usefulness of quality labels and an interest in getting information regarding food quality labels,
- to compare the attitudes of different socio-demographic groups of respondents, and to verify whether statistically significant differences do exist in the awareness and perceived credibility of labels based on consumers' socio-demographic characteristics and consumers' responsibility for food purchases.

Credibility of labels was analysed by using a 5-point Likert scale (1 = untrustworthy; 5 = trustworthy). Data were analysed using SPSS program, using a series of descriptive statistics (Pearson Chi-square test). Chi-square test, contained in the field part, in a contingency table analysis is used to answer the following question: Is the observed association between the variables in the cross-tabulation statistically significant? Chi-square statistic determines the significance of observed association in cross-tabulations involving two or more variables. This is typically called a test of independence (Grover and Vriens, 2006).

### **3. Analysis of data from DOOR database – results**

Research outcomes correspond with the date of 15<sup>th</sup> September 2013, when 1114 product items certified with PGI or PDO label were registered in the DOOR database for EU countries. Table no. 1 presents the general profile of the sample.

As we can see in Table no. 1, both labels are covered nearly the same (almost 50 %), with the slight predominance of PDO. Most frequent product classes are fruits, vegetables and cereals, cheeses and fresh meat, dominant countries in number of PGIs and PDOs are Italy, France and Spain.

The following part of analysis is based on the list of EU countries and product names in DOOR database. The ranking of countries according to total number of product names registered as PGI and PDO was created, results are presented in Table no. 2. Cells with the highest number of registered product names are highlighted in grey colour.

Table no. 1: Sample structure (n = 1114; in per cent)

Type of Label	PGI	49.46	Country <sup>1)</sup>	Italy	22.62
	PDO	50.54		France	17.86
Product Class <sup>1)</sup>	1.6 Fruits, vegetables, cereals	27.74		Spain	14.45
	1.3 Cheeses	18.40		Portugal	10.68
	1.1 Fresh meat	12.21		Greece	8.89
	1.2 Meat products	11.85		Germany	8.26
	1.5 Oils and fats	10.59		United Kingdom	4.22
	2.4 Bread, pastry, cakes, other baker's wares	4.67		Czech Republic	2.51
	1.8 Other products of Annex I*	3.59		Poland	2.33
	Other	10.95		Other	8.17

1) first 90 % of cases

\* species, condiments, ciders, teas, etc.; \*\* eggs, honey, various milk products excluding butter etc.

Source: own calculation using data from European Commission, 2013c

In Table no. 2 we can see, 24 from 28 EU member countries have registered their product names as PGI and/or PDO in DOOR database. Countries such Estonia, Latvia, Croatia, and Malta have neither PGI nor PDO products. Slovakia, Denmark, Cyprus, Bulgaria, and Romania have only PGI products, Lithuania is represented with no PGI products and only one PDO product. Dominant countries in ranking are Italy, France and Spain having registered over 50% of all products. Italy is leader with PDO products, France with PGI. The first six countries of ranking (i.e. 21 % of all EU countries) have obtained PGI and PDO for more than 80 % product names registered in DOOR database (the Pareto rule is showing here). In order to discover reciprocal dependences of tracked characters, we proceeded chi-square test at significance level  $\alpha = 0.05$ , when  $\text{sig } F = 0$ , and we can confirm variables depend reciprocally. Thereby, we accept hypothesis about the highest distribution of labels in three Mediterranean countries, Italy, France and Spain. Reasons for this could be well-known gastronomic specialities as well as national cuisine in these countries, which have built on a long history and are popular around the world. These countries have higher impact on global food marketplace.

Table no. 2: Frequency of product names registered as PGI and PDO according to EU countries (n = 1114, in per cent)

EU country	PGI	PDO	Total
1. Italy	17.60	27.53	22.62
2. France	20.51	15.28	17.86
3. Spain	13.25	15.63	14.45
4. Portugal	10.89	10.48	10.68
5. Greece	4.90	12.79	8.89
6. Germany	11.25	5.33	8.26
7. United Kingdom	4.72	3.73	4.22
8. Czech Republic	3.99	1.07	2.51
9. Poland	3.27	1.42	2.33
10. Slovenia	1.45	1.07	1.26
11. Austria	1.09	1.42	1.26

EU country	PGI	PDO	Total
12. Hungary	1.09	1.07	1.08
13. Belgium	0.91	0.53	0.72
14. Netherlands	0.54	0.89	0.72
15. Slovakia	1.27	0.00	0.63
16. Finland	0.18	0.89	0.54
17. Denmark	0.91	0.00	0.45
18. Sweden	0.54	0.18	0.36
19. Luxembourg	0.36	0.36	0.36
20. Ireland	0.54	0.18	0.36
21. Cyprus	0.36	0.00	0.18
22. Lithuania	0.00	0.18	0.09
23. Bulgaria	0.18	0.00	0.09
24. Romania	0.18	0.00	0.09
25. Estonia	0.00	0.00	0.00
26. Latvia	0.00	0.00	0.00
27. Croatia	0.00	0.00	0.00
28. Malta	0.00	0.00	0.00
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

Source: own calculation using data from European Commission, 2013c

Differences between numbers of registered PDO and PGI labels in EU countries are shown in Figure no. 1. In countries such Italy, Spain or Greece predominate PDO labels over PGIs. On the other hand, in France, Germany, Czech Republic and Poland is higher share of PGIs.

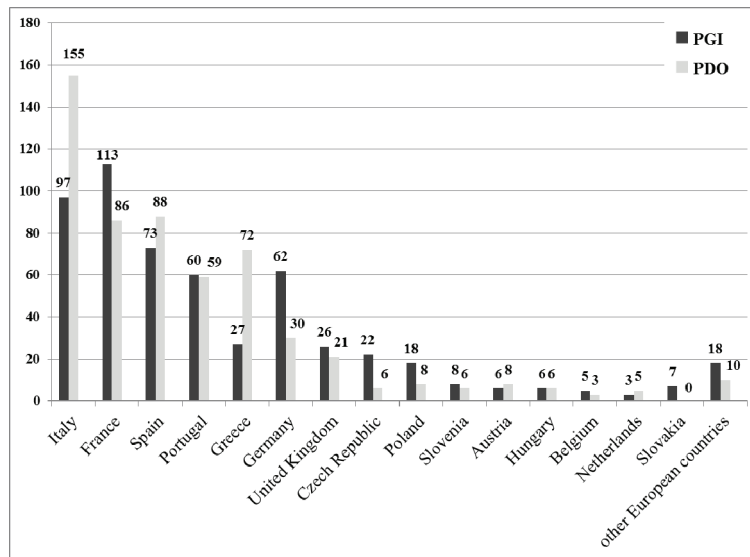
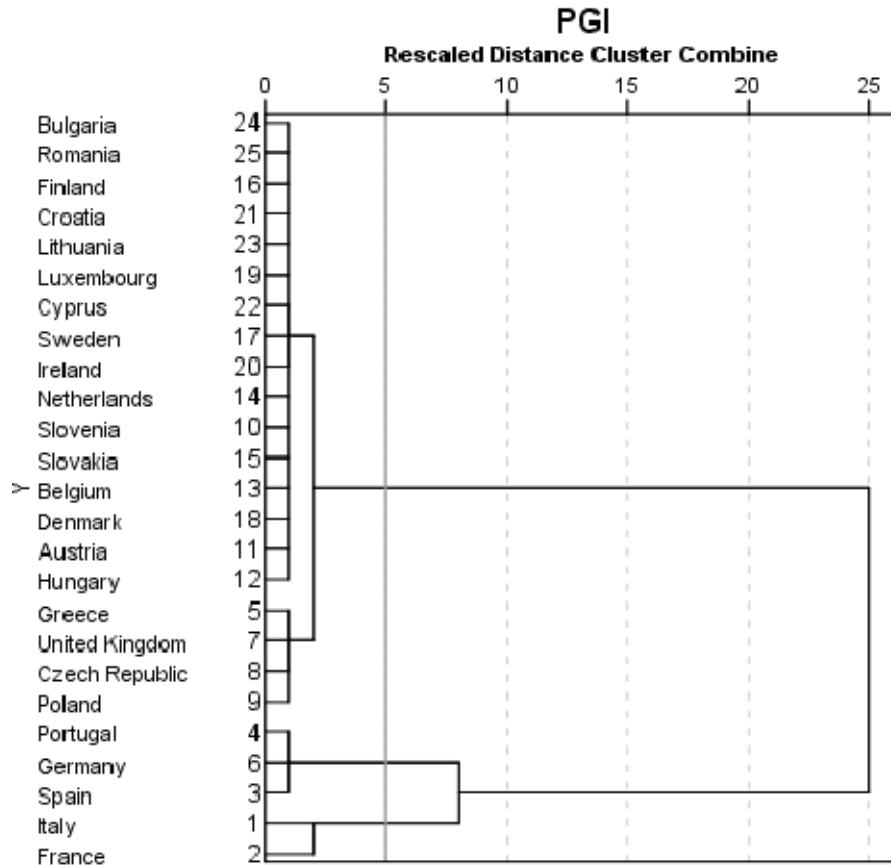


Figure no. 1: Comparison of registered PGI and PDO labels in EU countries

Source: own calculation using data from European Commission, 2013c



Relations between registered PGI labels and country are also presented in dendrogram as an output of cluster analysis (Figure no. 2), where at distance connection value of 5 we can see three significant clusters of countries. The first one includes Italy and France with 38 % of total number of all registered PGI products. Second cluster consists of Portugal, Spain and Germany having registered 35 % of all labels. Third cluster covers the rest of countries and their share on total number of PGIs is 27 %.



**Figure no. 2: Grouping EU countries by PGI labels**  
*Source: own processing*

Also the relations between registered PDO labels and country were analysed. Dendrogram (Figure no. 3) illustrates structure of registered PDO labels in European Union countries. We proceeded three clusters at distance connection value of 5. First cluster is individual country – Italy with almost 28 % of all registered PDO products. Second cluster includes Mediterranean countries as France, Spain, Portugal and Greece, these countries cover 54 % of all registered PDO labels. The rest of countries are combined into the third group, including 18 % of PDO labels.

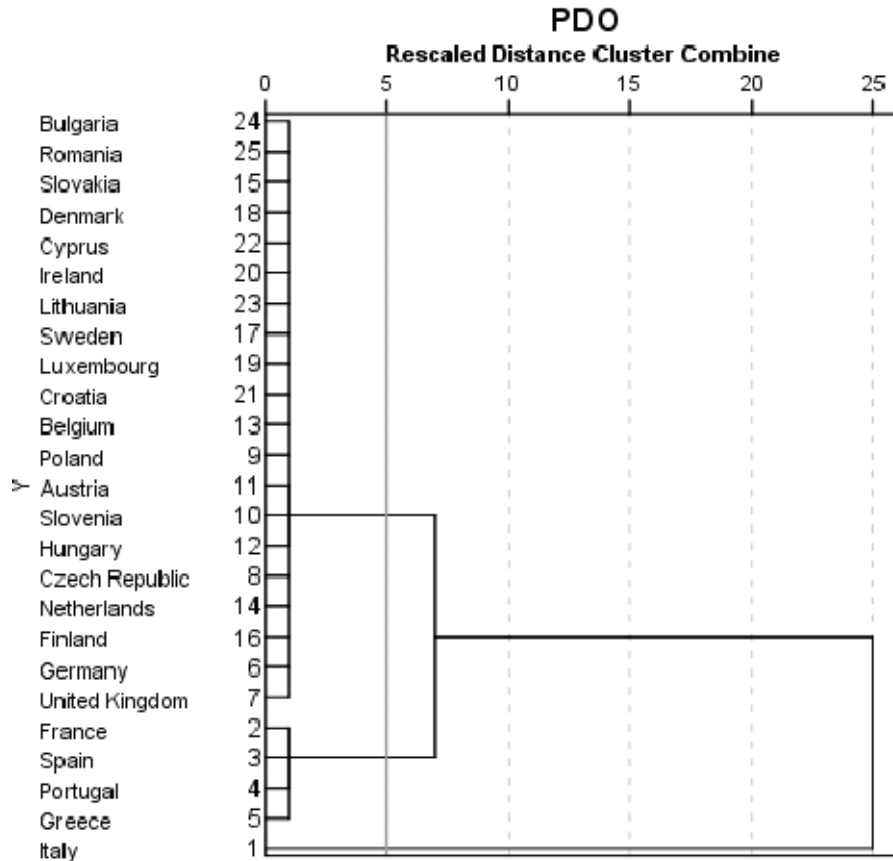


Figure no. 3: Grouping EU countries by PDO labels  
 Source: own processing

In the next step of the analysis, we focused on using PGI and PDO labels according to product classes. The products classification specified in Council Regulation (EC) No. 510/2006 for PGI and PDO was applied; the same classification is also used in DOOR database. Frequency of product names registered as PGI and PDO in the individual product classes is shown in Table no. 3. Product classes with the largest number of registered product names under PGI and PDO are highlighted in grey colour.

As it is evident from Table no. 3, the most of PGI and PDO products come from Class 1. The most frequent product classes are Fruits, vegetables and cereals followed by Fresh meat and Meat products for PGI, and Cheeses followed by Fruits, vegetables and cereals for PDO. If we summarize number of product names registered as PGI and PDO, the most common product class is Fruits, vegetables and cereals; there is almost 28 % of all registered product names. We have also proceeded chi-square test to discover dependence of characters at significance level  $\alpha = 0.05$ , sig F = 0 and we can confirm the dependence between type of label and product classes where the labels are used.

**Table no. 3: Frequency of product names registered as PGI and PDO according to product classes (n = 1114, in per cent)**

Product Class	PGI	PDO	Total
1.1 Fresh meat	18.51	6.04	<b>12.21</b>
1.2 Meat products	18.33	5.51	<b>11.85</b>
1.3 Cheeses	5.26	31.26	<b>18.40</b>
1.4 Other products of animal origin (eggs, honey, etc.)	1.45	4.44	<b>2.96</b>
1.5 Oils and fats	2.72	18.29	<b>10.59</b>
1.6 Fruits, vegetables and cereals	33.21	22.38	<b>27.74</b>
1.7 Fresh fish, crustaceans and molluscs	3.81	1.60	<b>2.69</b>
1.8 Other products of Annex I (species, condiments, ciders, etc.)	2.36	4.80	<b>3.59</b>
<b>Total – Product Class 1</b>	<b>85.66</b>	<b>94.32</b>	<b>90.04</b>
2.1 Beers	3.81	0.00	<b>1.89</b>
2.2 Mineral and spring waters	0.00	4.09	<b>2.06</b>
2.3 Beverages made from plant extracts	0.00	0.00	<b>0.00</b>
2.4 Bread, pastry, cakes and other baker's wares	9.07	0.36	<b>4.67</b>
2.5 Natural gums and resins	0.00	0.36	<b>0.18</b>
2.6 Mustard paste	0.36	0.00	<b>0.18</b>
2.7 Pasta	0.73	0.00	<b>0.36</b>
<b>Total – Product Class 2</b>	<b>13.97</b>	<b>4.80</b>	<b>9.34</b>
3.1 Hay	0.00	0.18	<b>0.09</b>
3.2 Essential oils	0.00	0.53	<b>0.27</b>
3.3 Cork	0.00	0.00	<b>0.00</b>
3.4 Cochineal (raw product of animal origin)	0.00	0.00	<b>0.00</b>
3.5 Flowers and ornamental plants	0.36	0.00	<b>0.18</b>
3.6 Wool	0.00	0.18	<b>0.09</b>
3.7 Wicker	0.00	0.00	<b>0.00</b>
3.8 Scutched flax	0.00	0.00	<b>0.00</b>
<b>Total – Product Class 3</b>	<b>0.36</b>	<b>0.89</b>	<b>0.63</b>
<b>Total</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

*Source: own calculation using data from European Commission, 2013c*

#### 4. Results of consumer survey in the Czech Republic

The marketing research results were analysed in accordance with research purposes. To indicate whether there are significant differences among answers of socio-demographic categories of respondents (based on gender, age, education, and their responsibility for food purchases), Pearson's chi-square test of independence was applied. The results are related only to consumers in the Czech Republic to demonstrate familiarity and perception of PGI and PDO labels on example of one selected EU country.

The first part of survey was focused on PGI and PDO labels awareness. Findings reveal a low awareness of the labels. Spontaneous awareness is 0 %. For testing aided awareness of

the labels, their logos were shown to the respondents. Respondents were asked to mention not only whether they recognize the logo, but also to explain the meaning of the label. Table no. 4 shows that only about 2 % of consumers were able fully explain the meaning of PGI and PDO labels. Almost 10 % have partially knowledge, i.e. they recognized logo, but they were able to specify the meaning of PGI and/or PDO labels on partial level.

**Table no. 4: Aided awareness of PGI and PDO labels in the Czech Republic (in per cent)**

	<b>yes</b>	<b>partially</b>	<b>no</b>
<b>PGI</b>	1.6	9.2	89.2
<b>PDO</b>	2.4	9.2	88.4

*Source: own calculation using data from Tymelová, 2013*

Further, there has been proceeded chi-square test to discover dependence of characters at significance level  $\alpha = 0.05$ . We can confirm, there are dependence between aided awareness of PGI label and responsibility for food purchases (sig F = 0.018) as well as between aided awareness of PDO label and responsibility for purchases (sig F = 0.03). Respondents with full responsibility for food purchases are better familiar with the labels than respondents with partial or no responsibility for purchases. Significant differences do not exist in the awareness of labels based on consumers’ socio-demographic characteristics (gender, age, education).

Perceived credibility of PGI and PDO labels was analysed by using a 5-point Likert scale (1 = untrustworthy; 2 = rather untrustworthy, 3 = neither trustworthy, nor untrustworthy, 4 = rather trustworthy, 5 = trustworthy, 0 = not able to answer), results are presented in Table no. 5. Most respondents were not able to answer, or they answer “neither trustworthy, nor untrustworthy”. The reason is that they are not aware of the labels.

**Table no. 5: Perceived credibility of PGI and PDO labels in the Czech Republic (in per cent)**

	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>0</b>	<b>Total</b>
<b>PGI</b>	1.6	2.8	9.6	6.8	1.2	78	100
<b>PDO</b>	1.2	3.6	11.2	6	1.2	76.8	100

*Source: own calculation using data from Tymelová, 2013*

Based on the results of consumer research conducted in the Czech Republic, we can state a low awareness of PGI and PDO labels. Aided awareness of labels depends on respondents’ responsibility for food purchases, the labels are recognised only minority part of consumers fully responsible for food purchases, respondents with partial or no responsibility are not at all familiar with labels. The reasons, why consumers are not familiar with products certified with PGI and PDO labels, are lack of information and minimum promotion of labels in the Czech Republic. This has the effect, that consumers are not able to fully use the labels for their purchase decisions. Perceived credibility of labels is influenced by their low familiarity, respondents were not able to evaluate credibility of labels, and findings relating to the credibility are not relevant. When we asked respondents about usefulness of labels, 79 % of them perceive quality labels as useful and they show interest in getting information

regarding this topic. Thus, quality labels have potential to communicate with consumers and facilitate their food purchases, but it is necessary to improve their promotion.

### **Conclusions**

The European Union quality schemes including PGI and PDO labels can bring benefits to producers as well as to consumers. Producers' benefits lies in fair competition, protection, and promotion of their products as well as in increasing demand for products with certified quality. Furthermore, labels can help producers obtain a premium price for their authentic products. Consumers are provided with the relevant information in an understandable form and they are assured they are buying a genuine product with specific value-adding characteristics. Products with these value-adding attributes enable consumers to make more informed purchases and the best possible choices in line with their preferences. It brings the reduction of consumer uncertainty about food safety and quality and increasing the consumer welfare through providing better consumer protection. Quality labels may also generate positive associations to a product and facilitate repeat purchases when satisfaction has occurred. The precondition for these benefits is an effective system of using the labels by producers and communication of the labels and their benefits to consumers.

As results from our research, based on data from DOOR database, the frequency of using the labels in EU member countries is different. While in some countries the labels are widely used, in other countries their use lags behind. Cluster analysis show the labels distribution by countries. Dominant countries in number of PGIs and PDOs are Italy and France, followed by Spain, Portugal, Greece, and Germany. Countries such Estonia, Latvia, Croatia, and Malta have neither PGI nor PDO products, many countries have registered just one or a few products and they do not use the benefits of European Union quality schemes.

Also the situation on the consumer side is not positive. Findings from consumer survey in the Czech Republic reveal that Czech consumers are not familiar with the PGI and PDO labels. The main problem is lack of information and minimum promotion of the labels. However, Czech consumers show interest in getting information regarding this topic, considering it as useful.

Consumers in other European countries show a higher level of PDO and PGI labels awareness. In the research study analysing European consumers' awareness and determinants of use of these labels in six European countries (Italy, Spain, France, Belgium, Norway and Poland), 68.1% respondents are aware of PDO and 36.4% respondents are aware of PGI label. French, Italian and Spanish consumers were significantly more aware of PDO, whereas relatively few Belgian, Norwegian and Polish consumers claimed to be aware of PDO. Additionally, relatively more Italian and relatively few Belgian and Polish consumers claimed to be aware of PGI (Verbeke, et al., 2012). If we compare these results with our secondary data analysis (Figure no. 1), there is a link between the level of labels awareness and the frequency of labels utilization in the country.

The important factor is that consumers consider quality labels as useful and they show interest in getting information regarding the labels and their benefits (Velcovska, Janackova and Larsen, 2012). The role of quality assurance labels as drivers of customer loyalty in the case of traditional food products was analysed also by Chrysochou, Krystallis and Giraud (2012). The findings of their research show that brands carrying a designation of origin labels in comparison to brands that do not carry any designation of origin labels label

exhibit higher levels of loyalty. Espejal, Fandos and Flavian (2008) highlighted that consumer satisfaction is a key factor of consumer loyalty and buying intention of a PDO food products. Generally, consumers have favourable opinions regarding quality labels considered to be helpful in making food choices, when they must choose from a wide variety of products and take the purchasing decision in a short time. The labels have a potential to attract consumers' attention and to be useful to consumers at the point of sale.

Quality labels such as PGI and PDO should be a central component of modern consumer policy. They should be an important tool for companies willing to communicate a significant higher quality or specific characteristics of their food products, in order to gain a competitive advantage in their market and to satisfy their consumers. To take full advantage of these benefits, it is necessary to provide consumers relevant, complete and accurate information in an understandable form. It enables them to make more informed purchases and the best possible choices of food products. The aim of the communication campaign should be to build awareness and credibility of the labels and to stimulate consumers' interest in such products.

In this context, the issues of consumer rights and consumer welfare are increasingly important, especially in the current economic climate in which the ability to make informed choices represents a real advantage in consumers' daily life. In order to make their purchases with confidence, both in their country and abroad, consumers need easy access to precise information and to professional advice (Dinu, et al., 2010). Official quality labels should be one of effective tools facilitating the choice of food products. If consumers decide to prefer quality and original products certified with official quality labels over the quantity and low prices, then manufacturers will push to offer such products (Burghelea, 2010). By guaranteeing the safe, quality and original products and a fair-play behaviour towards consumers can ensure producers the status of social responsible company and image of quality leader.

Limitations and future research are these: Aside from the theoretical and managerial contribution of the study, there are some limitations. Firstly, the sample size of product names from DOOR database is related to the date of 15<sup>th</sup> September 2013, but number of PGI and PDO labels registered in the DOOR database is not constant, it continuously increases and few months later the number could be higher. However, we can assume the similar distribution of labels between countries, mainly in the countries with the highest number of PGIs and PDOs. Secondly, we used only cluster analysis in the study. There are many other statistical methods for analysing and comparison of the labels utilization. Finally, the attention was given only to PGI and PDO labels and only to EU countries. Regarding the consumer survey, the results are related only to the Czech Republic and of course, could not generalize them for all EU countries, there should have to be more extensive research detecting different changes in consumers' attitudes around Europe.

In future research path, it could be useful to carry out a study focused also on TSG label or including other countries listed in DOOR database. Further, the study could be repeated at regular periods in order to compare the expansion of PGI and PDO labels and their distribution in the countries and/or product categories. Finally, it would be interesting to move forward with this study by giving attention not only on food and agricultural products registered in DOOR database, but also on other categories of products covered by PGI and PDO, namely wines, aromatized wine products, and spirit that are included in other databases (E-BACCHUS database, E-SPIRIT-DRINKS database). Since the results of

consumer research are related only to the Czech Republic, it would be interesting to carry out the same research study also in other EU countries and compare consumer attitudes.

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