



Session 23: Dairy and Meat Products:
from traditional to novel quality traits

Consumers' awareness of PDO and PGI labelled food products in Slovenia

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Introduction

- Slovenia enjoys a great tradition and wealth of regional and traditional food products
- Therefore, the Slovenian government has introduced **National and European Quality Schemes** and launched a campaign to inform consumers and boost demand for local products
- **Consumer awareness and understanding of label information** are crucial for determining, maintaining, and communicating labels of food quality



European and national registration

- In 2002, Slovenia developed an umbrella National Scheme, a collection of food labels of different colours and of EU-label-like characteristics
- Registration procedure is twofold, as the **national authority** and the **EU authority** have the same certification criteria
- Slovenian food products gained national certificates five or more years earlier than the EU certificates. Therefore, Slovenia has **weak tradition in EU quality labels**



European and national labels

- The European ***Protected Designation of Origin*** (PDO) and its national equivalent cover agricultural products and foodstuffs produced, processed, and prepared in a given geographical area, using recognized traditional knowledge.

EU PDO:



National PDO:



- The European ***Protected Geographical Indication*** (PGI) and its national equivalent indicate a link with the geographical area with at least one stage of the production, processing, or preparation.

EU PGI:



National PGI:



Registered PDO/PGI food products in Slovenia

- Currently, **8** Slovenian food products with an EU and National **PDO**

4 cheeses

2 honeys

1 salt

1 extra virgin olive oil



- **13** food products with an EU and National **PGI** are in the EU registration process:

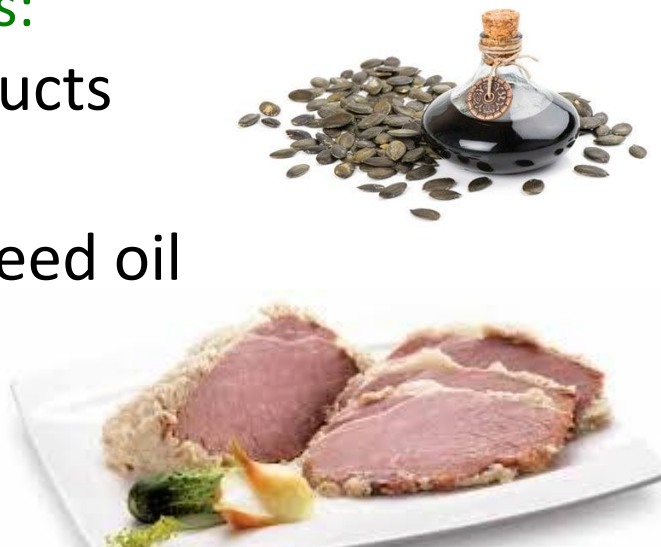
8 meat products

1 honey

1 pumpkin seed oil

1 eggs

1 onion



Aims of study

- Despite the growing professional interest in and literature on consumer awareness of PDO/PGI food products and attitudinal determinants of use of food products, consumer preference studies regarding the PDO/PGI label are scarce in the countries with weak tradition with the quality labels
- The study aimed at identifying the Slovenian consumer **awareness** of food products with a PDO/PGI label, **the role** of a PDO/PGI label in the **consumers' purchase decisions**, and **consumers' attitudinal determinants** of use of food products with a PDO/PGI label.



Method

Two similar questionnaires were included in the study.

- In 2014, a survey questionnaire was distributed by **regular mail** to a representative sample of Slovenian consumers and **333** questionnaires had no missing value.
- In 2016, an **online survey** was distributed to a representative sample of Slovenian of **650** online consumers.



Method: Questionnaire

- **Part 1** analysed the **importance of food product selection criteria** in consumers' daily life using a 7-point interval scale from "1 = Not at all important" to "7 = Extremely important"
- **Part 2** sought answers to the question of **understanding the awareness of food products with a PDO label**, with binary "yes"/"no" answers
- **Part 3** dealt with **consumers' attitudinal determinants** of use of products with a PDO label, using a 7-point interval scale, ranging from "1 = Not at all" to "7 = Very much"
- **Part 4** of the questionnaire focused on **socio-demographic information** of the surveys, including their age, gender, level of education, and level of income

Results: The importance of product selection criteria in consumers' daily life 2014 in 2016
 "1 = Not at all important" to "7 == Extremely important"

| Attributes | 2014 (n = 333) | | 2016 (n = 650) | |
|---------------------------|----------------|-------------|----------------|-------------|
| | \bar{x} | SD | \bar{x} | SD |
| Taste | 6,34 | 0,85 | 6,37 | 0,93 |
| Health benefit | 6,08 | 1,15 | 6,03 | 1,16 |
| Ingredients | 6,00 | 1,23 | 6,00 | 1,23 |
| Feeling benefit | 5,86 | 1,30 | 5,71 | 1,36 |
| Expiry date | 5,76 | 1,30 | 5,63 | 1,48 |
| Product familiarity | 5,70 | 1,26 | 5,80 | 1,23 |
| Country of origin | 5,63 | 1,61 | 5,62 | 1,49 |
| Price | 5,11 | 1,38 | 5,70 | 1,32 |
| Convenience | 4,86 | 1,60 | 5,14 | 1,52 |
| Nutrition information | 4,86 | 1,65 | 5,04 | 1,68 |
| PDO/PGI label | 4,67 | 1,70 | 4,97 | 1,72 |
| Labels of special quality | 4,38 | 1,73 | 4,24 | 1,64 |
| Package attractiveness | 3,95 | 1,63 | 4,37 | 1,60 |

Results: Consumers' awareness of products with PDO label by demographics (n = 333), chi-square test

| Characteristics | Awareness of PDO | | p-value | Characteristics | Awareness of PDO | | p-value |
|-------------------|------------------|------|---------|-----------------------|------------------|------|------------|
| | Yes | No | | | Yes | No | |
| Gender (%) | | | .87 | Education (%) | | | .01 |
| Male | 34.7 | 35.5 | | None | 6.0 | 2.3 | |
| Woman | 65.3 | 64.5 | | Secondary school | 61.6 | 47.3 | |
| Age (%) | | | .242 | High School | 12.8 | 23.6 | |
| Under 30 | 22.2 | 13.9 | | University degree | 16.2 | 23.6 | |
| 31 -50 | 33.3 | 34.3 | | Postgraduate degree | 3.4 | 3.2 | |
| 51-70 | 32.5 | 36.1 | | Income (%) | | | .87 |
| 71 and above | 12.0 | 15.7 | | No income | 10.3 | 9.0 | |
| | | | | < 1000 € | 29.1 | 26.7 | |
| | | | | 1.001 € - 2.000 € | 27.4 | 30.3 | |
| | | | | 2.000 € and above | 11.1 | 12.9 | |
| | | | | Do not want to answer | 22.2 | 21.0 | |

Results: Construct correlation matrix

(n = 181; surveys who are aware of PDO label;
Structural Equations Modelling by means of LISREL)

| Construct | 1 | 2 | 3 | 4 | 5 | 6 |
|---|------|------|------|------|------|------|
| 1. Use of a PDO label | 1.00 | | | | | |
| 2. Interest in getting information on PDO products | 0.60 | 1.00 | | | | |
| 3. Belief that PDO signals better quality of products | 0.69 | 0.59 | 1.00 | | | |
| 4. Belief that PDO signals better taste of products | 0.72 | 0.60 | 0.64 | 1.00 | | |
| 5. Interest in production of local products | 0.38 | 0.40 | 0.30 | 0.31 | 1.00 | |
| 6. Interest in opportunities of purchasing PDO products | 0.43 | 0.47 | 0.33 | 0.35 | 0.63 | 1.00 |

All correlations are statistically significant $p < 0.01$ (two-tailed)

The proposed model fitted as acceptable:

$\chi^2 = 81.89$ and 14 degrees of freedom ($p < 0.05$),

the GFI value is 0.99 and the RMR value is 0.068.

Conclusions

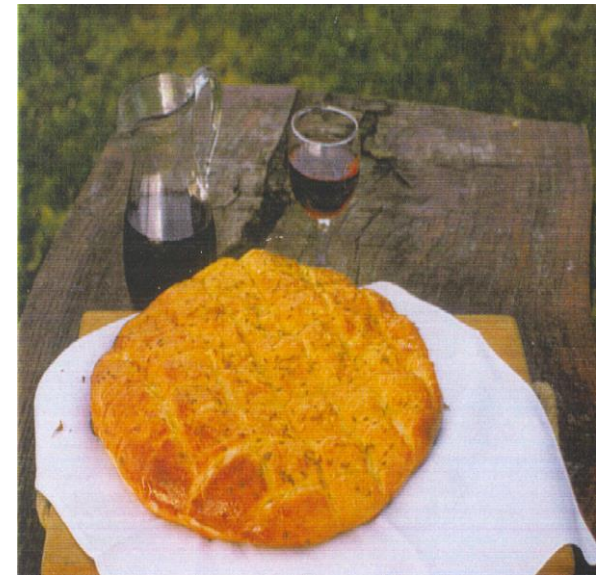
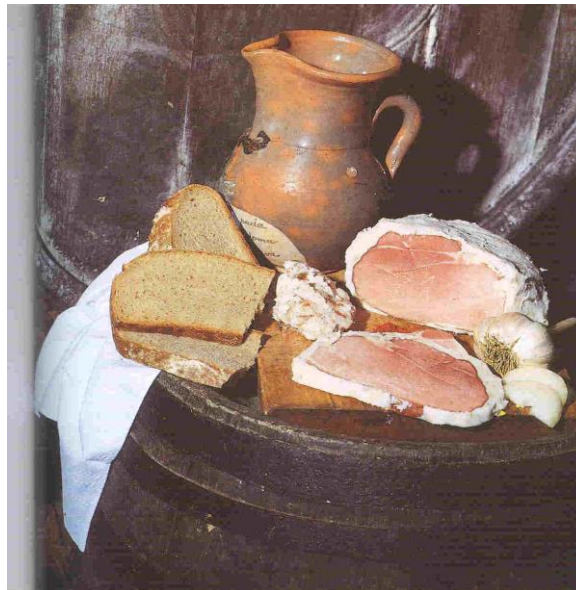
1. **A low awareness of PDO or PGI labelled products**, as majority of the respondents declared they had no knowledge of food products with of food products with a PDO and PGI labels.
2. Consumers tend to pay greater attention to the **taste of a food product**, its positive impact on their health, and ingredients in the product.
3. Consumers with **secondary education** were significantly more aware of food products with a PDO label, than consumers with other levels of education.

Conclusions

4. For consumers, who were aware of products with a PDO label, the **interests and quality perceptions** played a significant role in shaping the use of a PDO label.
5. The study demonstrated a direct **relationship** between the belief that **the PDO signals better quality** of products, and **the use of a PDO label**.
6. The results highlight the need to **extend and intensify promotional and communication activities** to increase interest in origin and getting information about product quality through PDO and PGI labels.



Questions?



Results: Determinants of consumers' purchase of products with a PDO label

(n = 181; Structural Equations Modelling)

| Path from | to | β |
|--|--|---------|
| Interest in opportunities of purchasing PDO products | Interest in getting information on PDO products | 0.41 |
| Interest in production of local products | Interest in getting information on PDO products | 0.23 |
| Interest in opportunities of purchasing PDO products | Use of a PDO label | 0.40 |
| Interest in production of local products | Use of a PDO label | 0.29 |
| Interest in getting information on PDO products | Belief that PDO signals better quality of products | 0.59 |
| Interest in getting information on PDO products | Belief that PDO signals better taste of products | 0.35 |
| Interest in getting information on PDO products | Use of a PDO label | 0.35 |
| Belief that PDO signals better quality of products | Belief that PDO signals better taste of products | 0.67 |
| Belief that PDO signals better quality of products | Use of a PDO label | 0.70 |
| Belief that PDO signals better taste of products | Use of a PDO label | 0.39 |

Goodness-of-fit statistics: $\chi^2(14) = 81.89$; $p < 0.05$; RMSEA = 0.068, GFI = 0.99;

Only significant coefficients $p < 0.05$ are shown; reported coefficients are direct effects only