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WORLDWIDE PERSPECTIVES ON GEOGRAPHICAL INDICATIONS

Investigating the role of front-of-pack labels on consumers' WTP for a PDO product

PDO cheese labels: the relationship between price and the degrees of traditionality, quality, sustainability, naturalness, and sensory attributes

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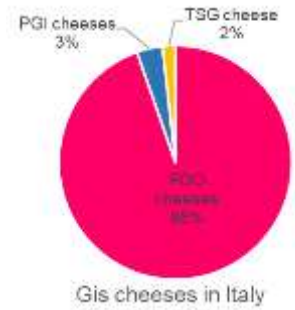


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Introduction (I)

- The cheese industry faces high competition due to a saturated market and food inflation (EC, 2023), consequently, cheese producers and manufacturers are striving to differentiate their products from others.
- Their strategies may involve registering products as GIs (Geographical Indications) e.g., Protected Designation of Origin (PDO) or implementing other food quality schemes e.g., organic and mountain products (Menozzi et al., 2022).
- There are almost 500 types of cheese in Italy, of which 56 have a GIs (53 PDO cheeses, 2 PGI cheeses, and 1 TSG cheese) (Ismea Qualivita, 2023).
- PDO cheeses are cheeses with a strong connection to the origin; from milk production to cheese maturation.
- The PDO assures consumers that every step of the production process occurred within the geographical boundaries designated by the designation of origin.



Introduction (II)

- Suppliers use labeling to communicate these characteristics, which could affect consumers' purchasing decisions.
- However, there are few literature on the elements that suppliers employ on the packaging to set PDO cheese products apart from those of their competitors.
- This study aimed to shed light on the elements they used and to what extent cheese labeling may affect product prices



Products

- Hard cheese
(Parmigiano Reggiano PDO, Grana Padano PDO, and Hard cheese type);
- Fresh soft cheese
(Robiola di Roccaverano PDO and robiola type); and
- String cheese
(Caciocavallo Silano PDO and caciocavallo type).



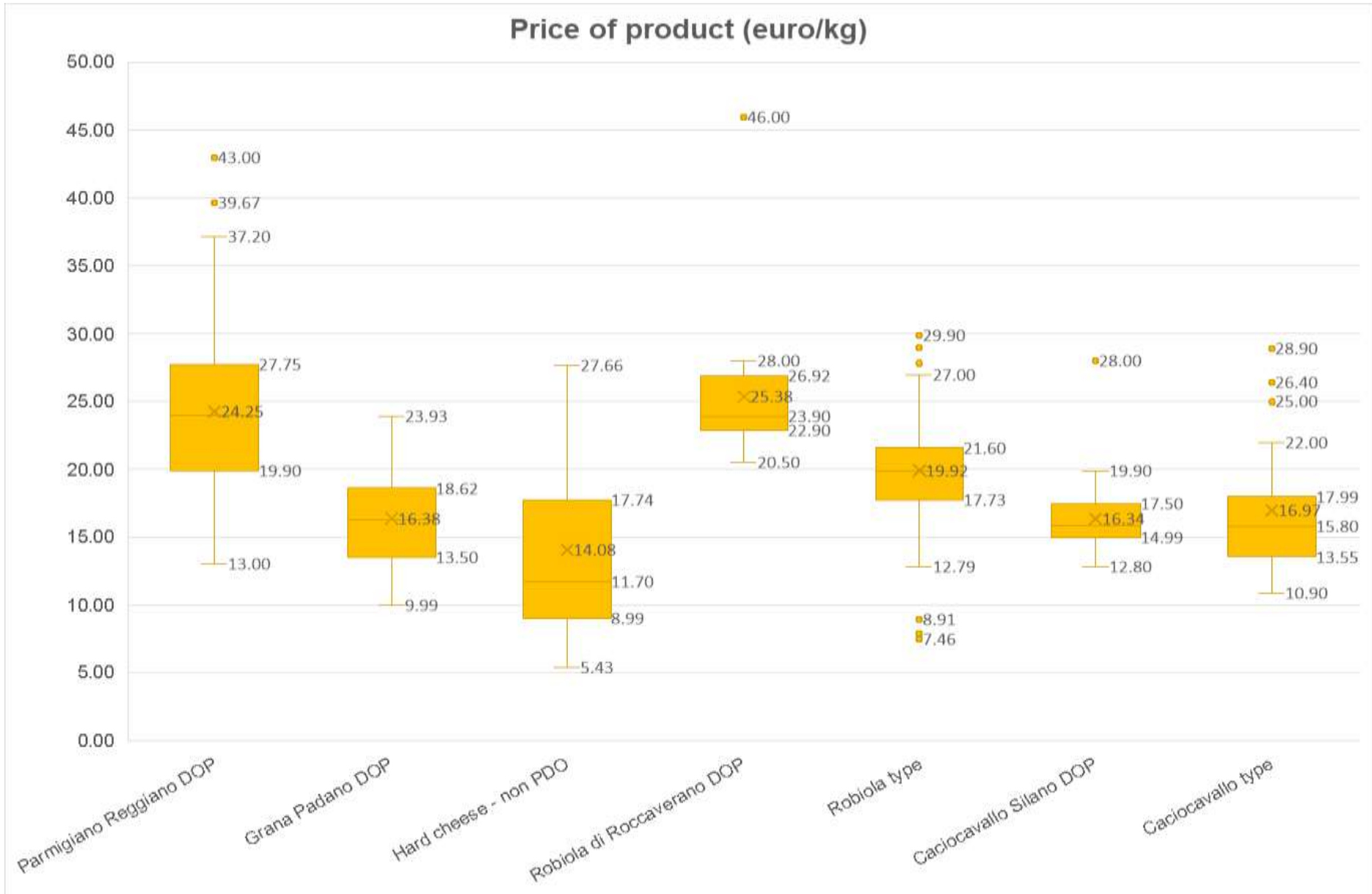
Objectives

- 1) To explore the different dimensions and subdimensions presented on the labels of selected cheese products in the Italian market.
- 2) To assess the impacts of different dimensions on the sale prices of the cheese products.



Figure 1 Dimensions and subdimensions of attributes from the analyzed cheese labels

Results



- Parmigiano Reggiano PDO (N = 87, M = 24.2, SD = 6.2)
- Grana Padano PDO (N = 153, M = 16.4, SD = 3.20)
- Hard cheese non-PDO (N = 12, M = 14.08, SD = 7.01)
- Robiola di Roccaverano PDO (N = 18, M = 25.4, SD = 5.56)
- Robiola type (N = 94, M = 19.9, SD = 3.99),
- Caciocavallo Silano PDO (N = 31, M = 16.3, SD = 2.84)
- Caciocavallo type (N = 37, M = 17.0, SD = 4.42)

Figure 2 The average price of the products per kg (euro/kg).

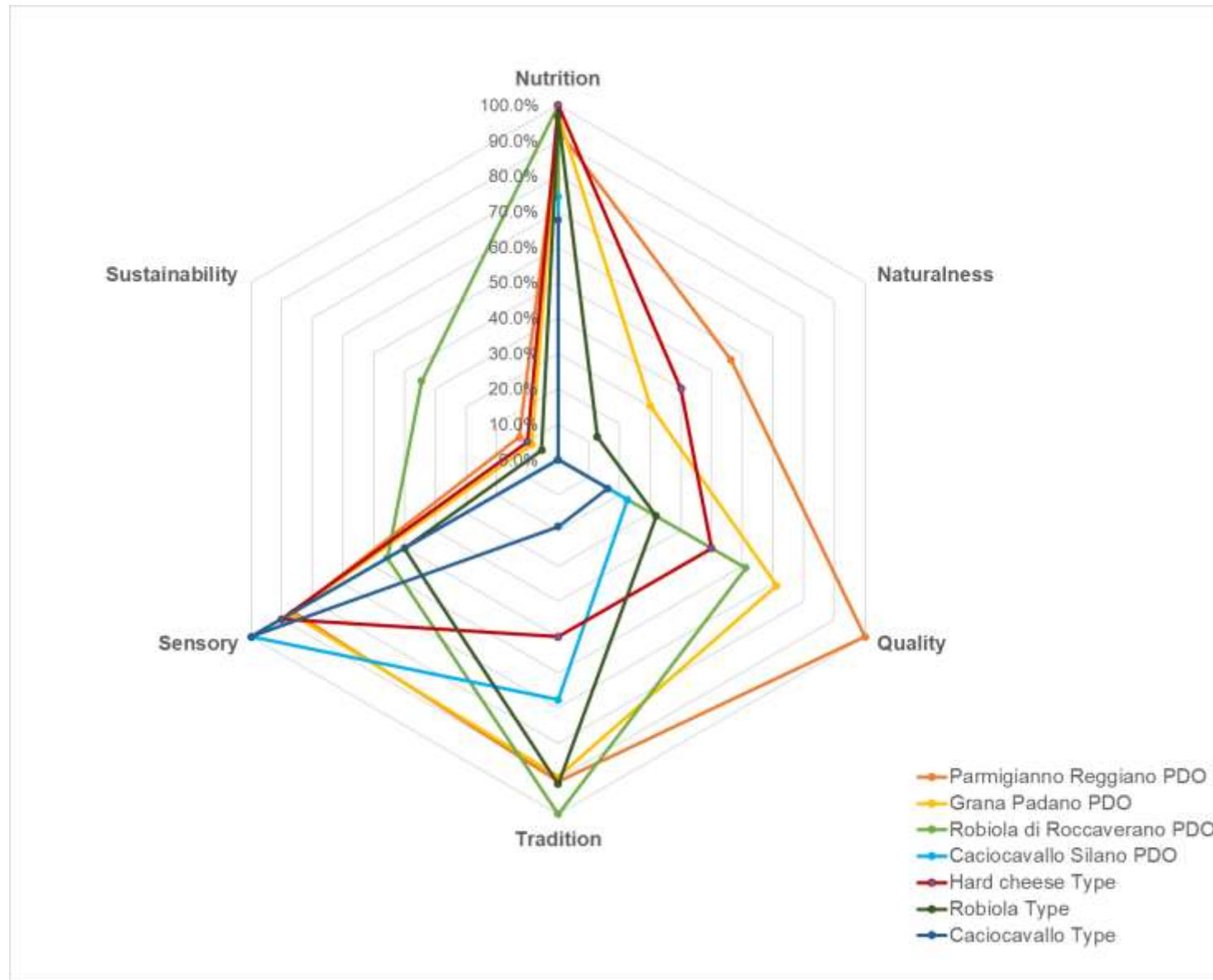


Figure 3 Radar charts depict the six dimensions of attributes presented on product labels.

The charts were constructed by calculating the relative frequency (%) of each product's dimensions

Results from multiple linear regressions, Dependent Variable = Price (€/Kg)

| Hard cheese | | Soft fresh cheese | | String cheese | |
|--|--|---|---|---|------|
| + | - | + | - | + | - |
| Organic logo | No brand (base = private brand) | Organic logo | | Cow breed specification | None |
| Cow breed specification | Discount store (base = supermarket) | Cheese specialty store (base = supermarket) | Discount store (base = supermarket) | Cheese specialty store (base = supermarket) | |
| Animal welfare | Open-air market (base = supermarket) | Being PDO cheese (base = Robiola type) | | | |
| Sustainable packaging | | manufacturer brand (base = private brand) | | | |
| Indication on texture | See color of product (transparent packaging) | Notes for degustation | | | |
| Naturalness - without others (i.e. GMOs, Natural) | | | | | |
| Cheese maturation | | | | | |

Note: only Parmigiano Reggiano & Grana Padano

Discussion

- The results suggested that **tradition and quality dimensions** are crucial for staying competitive, as PDO certification could create value-added to the cheese products in the Italian market.
- However, only PDO certification might not be enough, as other dimensions are also important.
- The value of hard cheese products can be enhanced by **sustainable** (organic label, animal welfare, and sustainable packaging), **quality** (cow breed specification, and cheese maturation period), **sensory** (indication of texture), and **naturalness** (without GMOs and natural) attributes.
- Fresh soft cheese can be differentiated by **sustainable** (organic label) and **sensory** (degustation suggestions) attributes.
- **Specific cow breed information** could add value to string cheese.
- Cheese specialty shops are crucial for distributing fresh soft and string cheeses, as their prices are higher than retail chains. However, Parmigiano Reggiano PDO and Grana Padano PDP's prices depend more on cheese maturation period and brands.



Animal welfare



Biodegradable packaging cow breed specification



Sensory indication



Naturalness



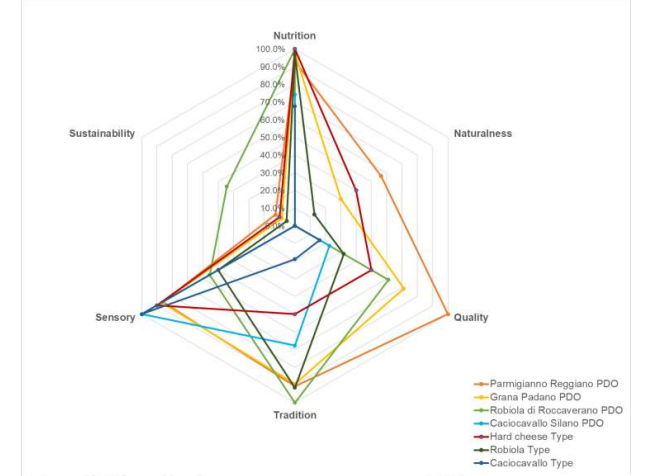
Cheese specialty shop



Degustation suggestion

Limitations and Future research

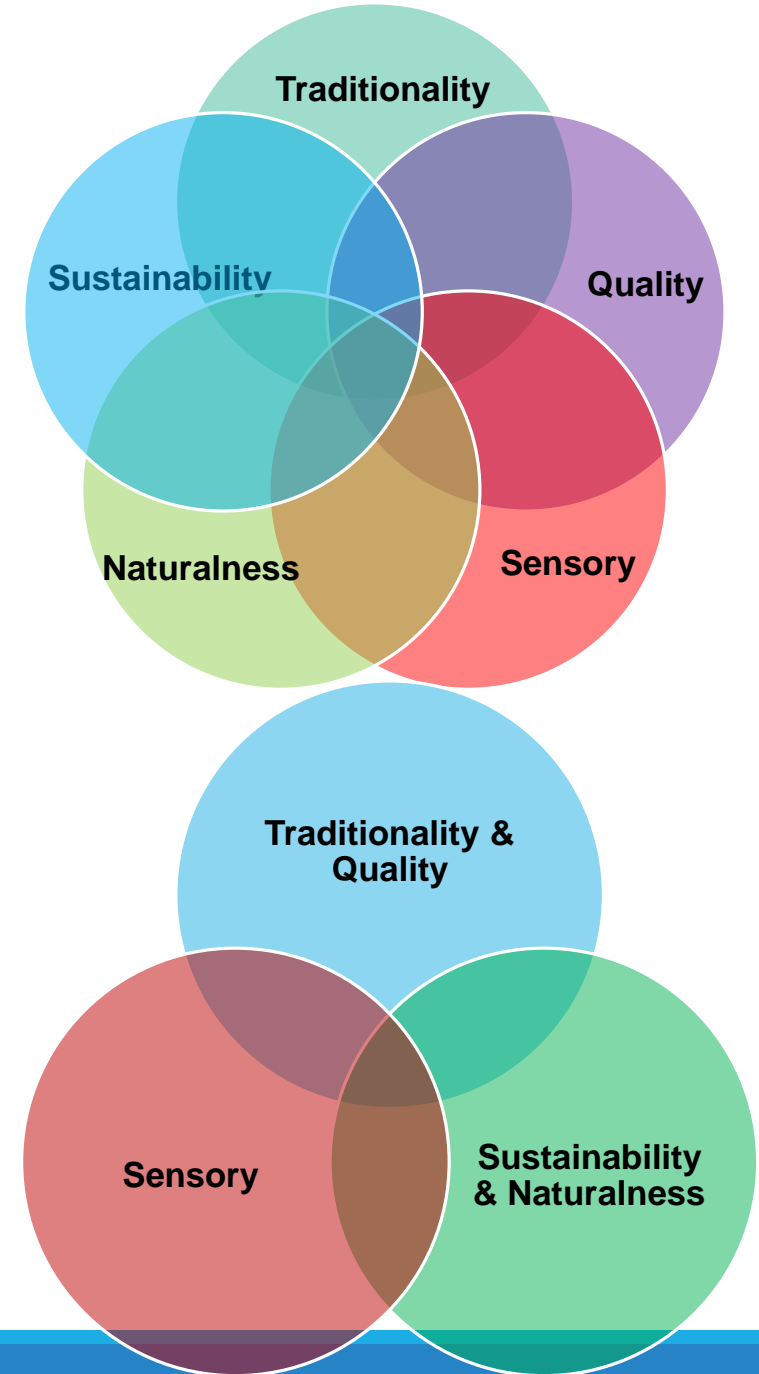
- The survey primarily focused on supermarkets as they are the primary food purchase channel in Italy, accounting for 40% of the market share (ISMEA, 2024).
- The content analysis method, while effective, can be reductive, reducing the significance of complex concepts by focusing solely on words or phrases. The issue was addressed by thoroughly documenting every element in the labels.
- The study focused on label analysis; it did not test actual consumer perceptions or willingness to pay directly.
- Future research could delve into consumers' perceptions of various dimensions, comparing them to the analytical tool's findings.



| Attribute/Levels | Italy |
|---------------------|--|
| | No-label hard granular cheese Parmigiano Reggiano PDO |
| Food quality labels | Mountain Product + Parmigiano Reggiano PDO |
| Brand | Large-scale retailer brand National brand Local brand |
| Price | Level 1: EUR 5.60/300 g Level 2: EUR 6.30/300 g Level 3: EUR 7.00/300 g Level 4: EUR 7.70/300 g |

Conclusions

- The findings suggested that higher cheese product prices are associated with an increase in the degree of tradition and quality on a label.
- Sustainability and naturalness can enhance the value of hard cheese, which is in line with contemporary marketing and sustainable label trends, while using transparent packaging reduces its prices.
- Sensory indications could add value to hard and fresh soft cheeses.
- The content analysis tool developed for this study may provide insight into how different dimensions could be promoted for enhancing the value of the cheese products.



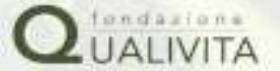
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Thank you for your attention!!

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The study was approved by the Research Ethics Board of the University of Parma prior to commencing this study (Review number: 0238340).

Research units:



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