

Rome, 18-21 February 2025

WORLDWIDE PERSPECTIVES ON GEOGRAPHICAL INDICATIONS

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

Investigating the Role of Front-of-Pack Labels on Consumers' WTP for a PDO Product

Giulia Andreani^{1*}, Giovanni Sogari^{1*}, Rungsaran Wongprawmas^{1*}, Davide Menozzi^{1*}, **Cristina Mora^{1*}**

¹ Department of Food and Drug, University of Parma, Parco Area delle Scienze 47/A, 43124, Parma, Italy

Objective

Given the increasing interest in FOP labels and the growing debates about the most suitable label to adopt, the present study aims at **investigating the impact of different FOP labels on consumers' willingness to pay (WTP) for Parmigiano Reggiano PDO.**



Method

- Lab experiment
- Young (average 25 yo) Italian adults
- N= 127

DISCRETE CHOICE EXPERIMENT:

Survey-based research method used to elicit preferences by asking participants to choose between sets of alternatives, each defined by specific attributes and levels.

Attributes	Definition	Level(s)
FOP nutrition label (NL)	<ul style="list-style-type: none">• Nutri-score (NS)• NutrInform (NI)	<ul style="list-style-type: none">• NS (D)• NI• No label
FOP sustainable label	<ul style="list-style-type: none">• Eco-score	<ul style="list-style-type: none">• ES-C• ES-D• No label
Price	<ul style="list-style-type: none">• Average price – 30%• Average price• Average price + 30%	<ul style="list-style-type: none">• 17,0 €/kg• 24,3 €/kg• 31,6 €/kg



EYE-TRACKING (Tobii ProLab):

Technology that measures where and for how long individuals focus their visual attention, providing insights into cognitive processes.

While making their choice, the Tobii ProLab was used to capture participants' visual attention for price, NL and sustainable label.



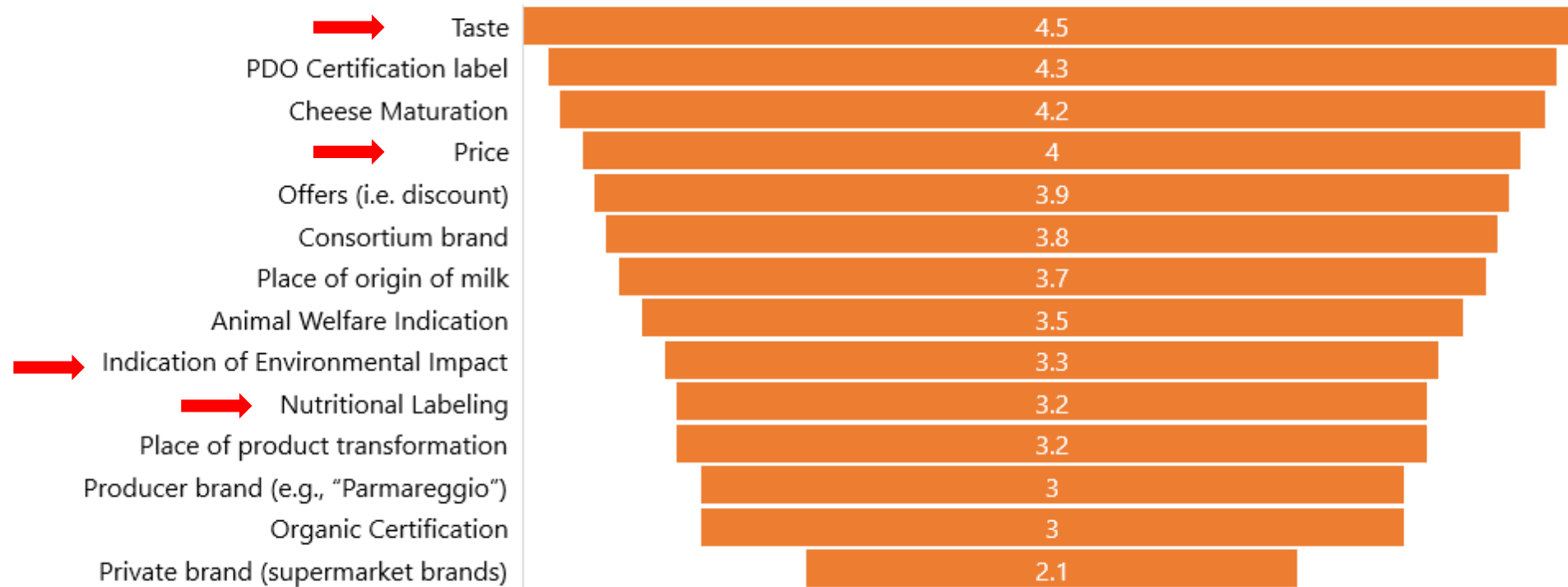
EXPERIMENTAL DESIGN:

- 9 choice tasks
- Each task with 3 alternatives (2 products + no buy option)

Preliminary Results

Results of Additional questions from the survey

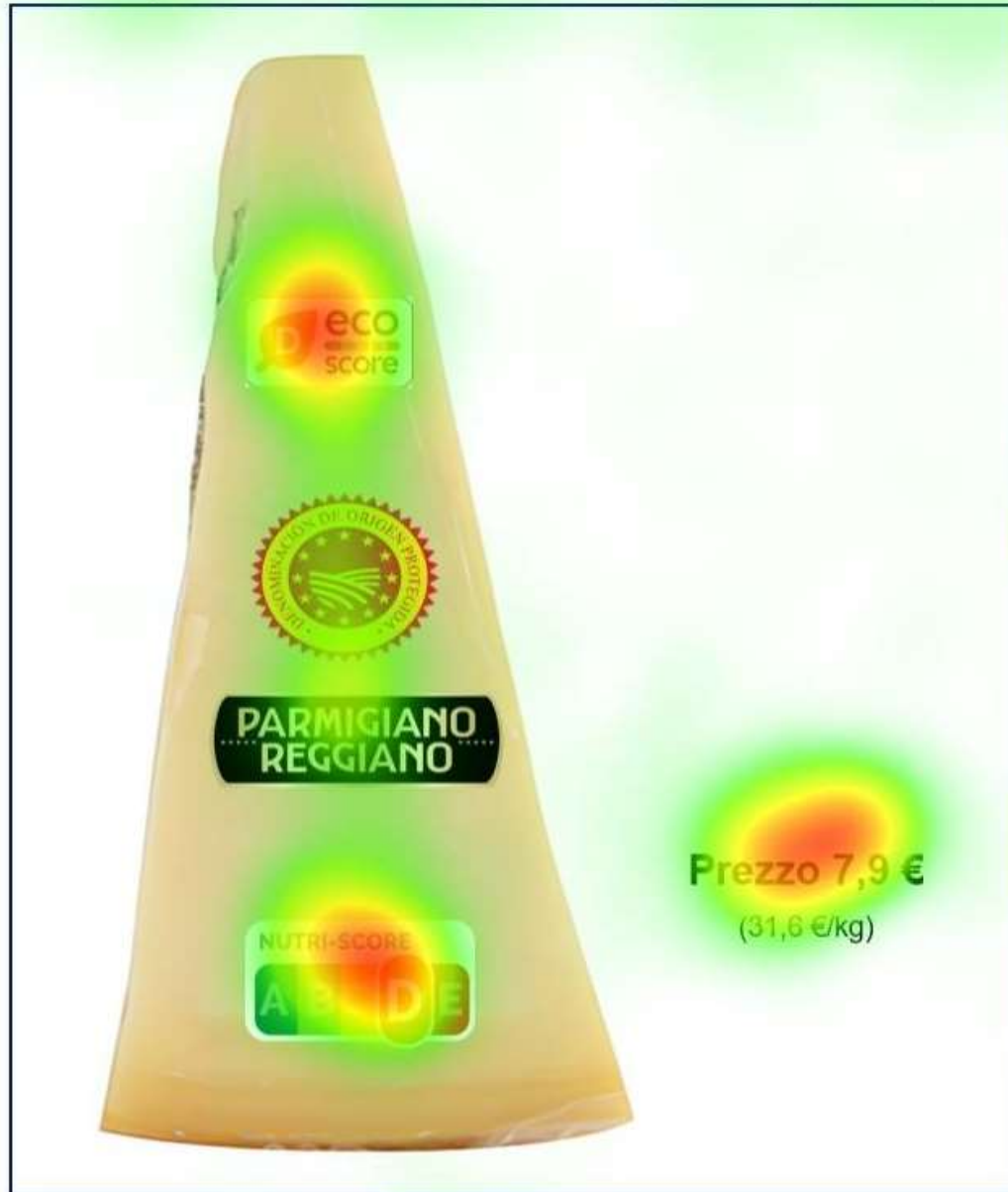
Importance of Parmigiano Reggiano PDO attributes



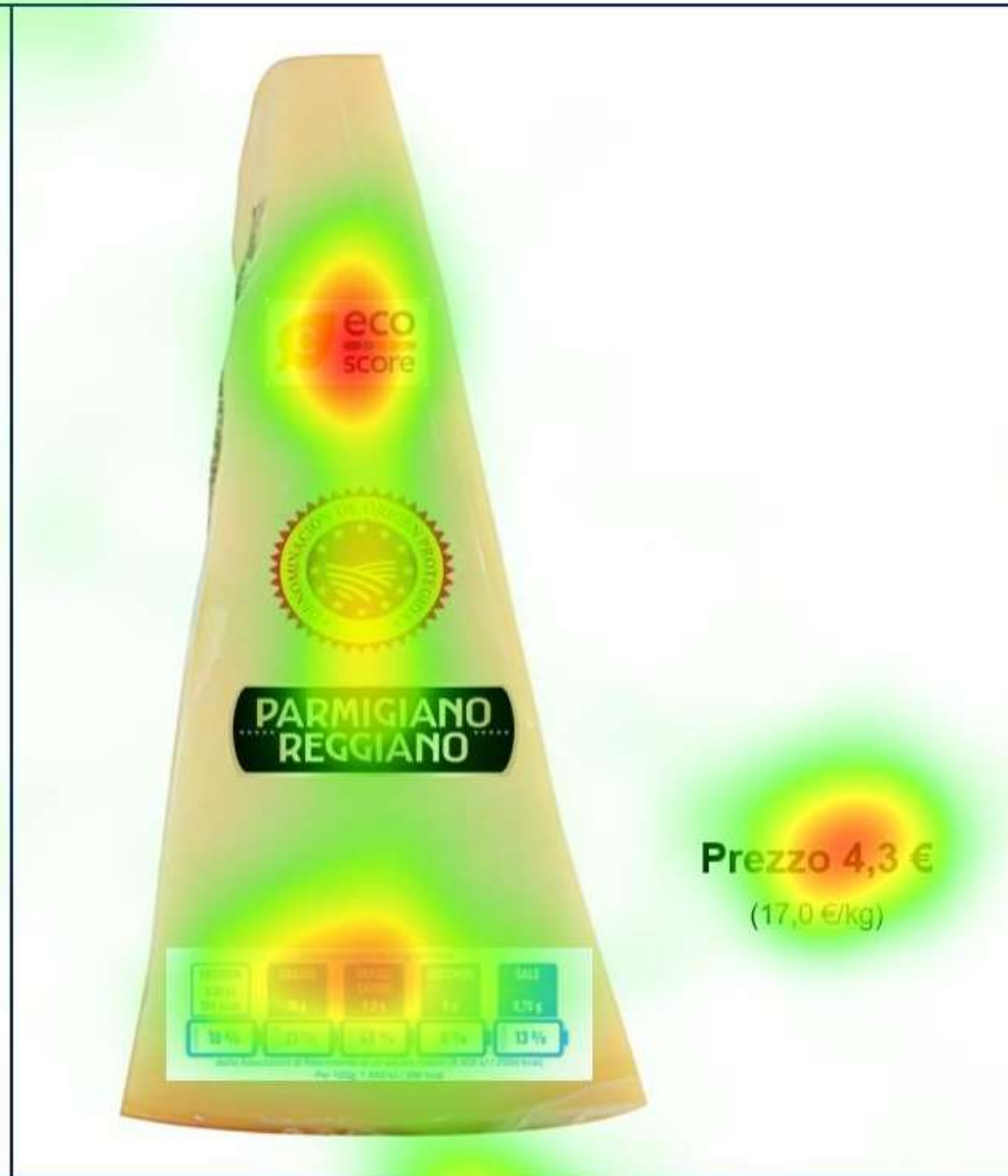
a 5-semantic scale from 1 ("Not important") to 5 ("Very important")

Quale opzione di Parmigiano Reggiano (250g) acquireresti?

Eye-tracking and visualizations: Heatmap



Opzione A



Opzione B

Nessuna delle opzioni precedenti
(None of these options)

Opzione C

Results from eye-tracking

Average eye-tracking measures for the stimuli ($n = 127$)

Area of interest	Fixation count				Fixation time (s)			
	Mean	SD	Min	Max	Mean	SD.	Min	Max
Price	6.5	2.4	0.8	16.4	2.5	1.2	0.3	7.3
Nutritional labelling (NL)	4.4	1.6	0.9	10.7	2.1	1.1	0.2	6.2
Eco-score (ES)	4.2	1.7	0.7	10.7	1.8	1.0	0.3	5.6

Results from Random-parameter logit (RPL) models

Results: RPL3 & RPL4

- The **coefficients of NI and ES-C are positive** and statistically significant at the 1% significance level in all the models, indicating that consumer utility increases when these labels are reported on Parmigiano Reggiano PDO packages.
- While the **coefficients of ES-D and NS-D are negative** and statistically significant at the 1% significance level in all the models, indicating that consumer utility decreases when these labels are reported on Parmigiano Reggiano PDO packages.

Results: RPL3: Baseline + Total visit duration (in seconds) of the alternative

- The **more attention (total visit duration) paid to a product alternative**, the more likely the product is to be chosen.

Results: RPL4: Baseline + Total visit duration (in seconds) of the attribute for each alternative

- The **more attention paid to the NL (TVD_NL) of a particular product alternative**, the more likely that product alternative is to be chosen.

Choice experiment & Eye-tracking (Total visit duration or Fixation time): Random-parameter logit model

RPL3: Baseline + Total visit duration (in seconds) of the alternative		RPL4: Baseline + Total visit duration (in seconds) of the attribute for each alternative	
+	-	+	-
ES-C (Eco-score, C) (base = no-ES)	No buy	ES-C (Eco-score, C) (base = no-ES)	No buy
NI (NutrInform) (base = no nutritional labelling)	Price	NI (NutrInform) (base = no nutritional labelling)	Price
TVD_Alternative (total visit duration to the product alternative)	ES-D (Eco-score, D) (base = no-ES)	TVD_NL (total visit duration to the nutritional labelling)	ES-D (Eco-score, D) (base = no-ES)
	NS-D (Nutri-score, D) (base = no nutritional labelling)		NS-D (Nutri-score, D) (base = no nutritional labelling)

- The more attention paid to a product alternative and its attribute (nutritional labelling), the more likely the product is to be chosen.

Main conclusions

- For Parmigiano Reggiano PDO, NutrInform could provide nutritional information while having no detrimental impact on consumer preferences.
- Eco-score could have a positive or negative impact on consumer preferences depending on the classification.
- The combination of NI and ES-C could increase consumer utility.



Thank you for your attention!!

Project funded under the National Recovery and Resilience Plan (NRRP), Mission 4 Component 2 Investment 1.3 - Call for proposals No. 341 of 15 March 2022 of Italian Ministry of University and Research funded by the European Union – NextGenerationEU. Award Number: Project code PE0000003, Concession Decree No. 1550 of 11/10/2022 adopted by the Italian Ministry of University and

Research, CUP D93C22000890001, Project title “Research and innovation network on food and nutrition Sustainability, Safety and Security – Working ON Foods” (ONFoods)



onfoods

