

Socio-economic factors influencing Hungarian consumers' attitude towards food quality labels

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Introduction

On community level, the European Union has several food quality labels playing an important role in the European food quality policy. The EU organic label was introduced in 1991, while the system of the geographical indications (Protected Designation of Origin - PDO, Protected Geographical Indications – PGI and Traditional Speciality Guaranteed – TSG) exists since 1992.









Parallel with the EU food quality labels all EU member states have their own labels. In Hungary dozens of such labels try to attract the consumers, many of them are managed by the government, but some successful labels are results of private initiatives. The two most well-known state owned Hungarian food quality labels are the “Quality food from Hungary” (KMÉ) and the “Traditions-Flavours-Regions” (HÍR). Both labels were introduced in 1998 and by the end of 2017 had 59 and 170 registered products, respectively.

This paper tries to identify the socio-economic factors influencing the Hungarian consumers’ attitude (their recognition in particular) towards the different quality labels.

Data collection

Data were collected via online surveys during the second half of 2017 within the frame of Strength2Food H2020 project through the market research company LiGHTSPEED. Two types of questionnaires with different labels included (see Table 1)

Table 1 Food quality labels included to the survey

Group1		Group2	
EU Organic		EU Organic	
PGI		PGI	
PDO		TSG	
HÍR		KMÉ	

Source: own composition

The sample is representative for the whole Hungarian population with respect to gender, average age and household size (Hungarian Central Statistical Office Population Census,

2011). Regarding the living area, respondents from cities are overrepresented (37.82% in the census, 41,3% and 44% in the sample), while those from rural areas are underrepresented (30,52% in the census, 19,1% and 20,9% in the sample). In terms of education, the sample is heavily dominated by respondents with a higher level of education, especially people with upper secondary education are underrepresented (48,08% in the census, 10,6% and 12,8% in the sample). Based on the census an average Hungarian household has 1,06 children that is much more compared to the sample's numbers (0,65 and 0,68 children). Thus, we can conclude that the Hungarian sample is close to being representative in terms of gender and age, while respondents of the survey are more urban, more educated and have fewer children than the Hungarian average.

Table 2 Descriptive statistics of the sample

	Group 1	Group 2
Total N	514	505
Valid N	404	398
	(%)	(%)
Gender		
Female (%)	50,5	51,0
Male (%)	49,5	49,0
Average age	40,9	42,79
Living area		
Rural area (%)	19,1	20,9
Urban medium town (%)	39,6	35,2
City (%)	41,3	44,0
Education		
Lower secondary/primary education or below (%)	2,5	2,5
Upper secondary education (%)	10,6	12,8
University or college entrance qualification (%)	41,6	46,5
Bachelor's degree or equivalent level (%)	31,4	27,9
Master, Postgraduate or doctoral degree (%)	13,9	10,3
HH size	2,87	2,85
Kids number	0,65	0,68

Source: own composition

Methodology

The sample was tested by logistic regression whether there is any significant socio-economic characteristics influencing the label recognition.

$$Pr (\text{Awareness}=1) = F(\beta_0 + \beta_1\text{Gender} + \beta_2\text{Age} + \beta_3\text{LivingArea} + \beta_4\text{Education} + \beta_5\text{HouseholdNetIncome} + \beta_6\text{HouseholdSize} + \beta_7\text{KidsNumber} + \beta_8\text{FoodDiet} + \beta_9\text{FamilyMemberDiet} + \beta_{10}\text{ShoppingLocation})$$

Table 3 Description of variables

Variables	Description
Dependent Variable	
Awareness	whether recognizes the given quality logo
Independent Variables	
Gender	female/male
Age	age of the respondent
LivingArea	rural/ medium town/ large city
Education	lower secondary/upper secondary/higher without degree/BSc/MSc-PhD
HouseholNetIncome	<150.000 HUF / 150.000-205.000 HUF / 205.000-235.000 HUF / 235.000-380.000 HUF / 380.000-835.000 HUF / > 835.000 HUF
HouseholdSize	number of people living in the household
KidsNumber	Number of children,<18 years
FoodDiet	Consuming: 1 milk 2 seafood 3 meat 4 egg 5 none of the aboves
FamilyMemberDiet	Consuming: 1 milk 2 seafood 3 meat 4 egg 5 none of the aboves
ShoppingLocation	Normally buy groceries in: 1 Supermarket 2 Discount store 3 Convenience store 4 Farmers' market 5 Department stores 6 Hypermarkets 7 Organic shop 8 Internet 9 Directly from farmer 10 Others

Results and discussion

The significant variables influencing the awareness of the selected labels are summarized in the appendix. As a general conclusion one can say that there is a huge heterogeneity among the different quality schemes and factors. Surprisingly, there is no statistically significant effect of the age, education, household net income and the number of kids on label recognition. On the other hand, the sex is a significant influencer, to be a man decreases the probability of the recognition for EU organic and the two Hungarian labels. Consumers living in rural regions know the KMÉ label much more. To have one more person living in the household decreases the probability of recognition by almost 75%. In case the respondent eats fish or seafood, the odds ratio of the EU organic logo recognition almost doubles, while in case of meat consumption it falls to less than 40%. On the other hand, the TSG logo is less known among egg consumers.

The typical shopping location influences the label awareness the most. Consumers visiting farmers market and department store know the EU labels more. The EU organic label recognizers do their shopping in organic shops, via internet, directly from the farmers and other alternative channels. Direct purchase from farmers significantly increases the label recognition of organic, PGI, TSG and HÍR logos.

References

Hungarian Central Statistical Office Population Census (2011) Available:

<https://www.ksh.hu/nepszamlalas/?lang=en>

Appendix

Statistically significant factors influencing label awareness

Awareness_Organic		Awareness_PGI		Awareness_PDO	
Gender	0.654 (2.35)*	ShoppingLocation_4	2.349 (4.31)**	ShoppingLocation_4	2.432 (2.45)*
FoodDiet_2	1.918 (2.34)*	ShoppingLocation_5	1.856 (2.85)**	ShoppingLocation_5	2.254 (2.08)*
FoodDiet_3	0.389 (2.13)*	ShoppingLocation_8	2.486 (2.22)*		
ShoppingLocation_4	1.715 (2.45)*	ShoppingLocation_9	2.250 (3.27)**		
ShoppingLocation_5	1.711 (2.22)*				
ShoppingLocation_7	2.649 (2.66)**				
ShoppingLocation_8	3.010 (2.66)**				
ShoppingLocation_9	2.103 (2.71)**				
ShoppingLocation_10	4.073				

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	(2.04)*				
Awareness_TSG		Awareness_HIR		Awareness_KMÉ	
FoodDiet_4	0.220	Gender	0.602	Gender	0.080
	(2.48)*		(2.21)*		(2.20)*
ShoppingLocation_3	1.932	ShoppingLocation_5	1.878	LivingArea	0.067
	(2.06)*		(2.16)*		(3.05)**
ShoppingLocation_4	2.023	ShoppingLocation_7	3.438	HouseholdSize	0.252
	(2.20)*		(2.34)*		(2.90)**
ShoppingLocation_7	3.202	ShoppingLocation_9	2.460	ShoppingLocation_3	0.097
	(2.21)*		(2.59)**		(2.09)*
ShoppingLocation_9	2.295			ShoppingLocation_8	0.006
	(2.15)*				(2.91)**

Note: * p<0.05; ** p<0.01

Source: own composition