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# CONSUMER ATTITUDES AND HABITS ABOUT PRODUCTS WITH GEOGRAPHICAL INDICATION IN SERBIA

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## ABSTRACT

To market products with geographical indications in the best possible way, it is necessary to examine the attitudes and habits of consumers. The subject of this paper is a survey on habits and attitudes of consumers about products with GI in Serbia. The aim of this paper is to examine the level of familiarity, attitudes, and habits of consumers, as well as to determine the knowledge and interest in these products. Citizens of Serbia participated in the research (n = 399). The methodology is based on a questionnaire that obtained the data that were processed via t-test statistical methods for independent samples, one-factor analysis of variance, the  $\chi^2$  test, and Pearson's correlation coefficient. Based on the conducted research, it can be stated that about 70% of respondents are willing to pay a higher price for these products.

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## Introduction

The protection system of products with GI (Geographical Indication) was created in order to follow the development and the need to offer and highlight unique agricultural, food and gastronomic products. In this way, GI has had positive effects on consumers of services or products, creating a clear picture of the specific, authentic characteristics of food and beverages. Their constant production and sales has had a positive impact

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on economic development of the country - the region from which the products originate (Ćirić et al., 2020), helping thus the process of nurturing tradition, aspiring tourist potential and preserving regional and national image (Lukinović et al., 2021). These quality schemes have been developed to protect producers and consumers from similar products that may be found on the market (Balogh et al., 2016). Geographical indications refer to products with specific characteristics, quality or reputation that derive from their geographical origin. Geographical indications are intellectual property, which is regulated by international policies and regulations (Vandecandelaere et al., 2020).

Geographical indications are especially important for less developed countries, because most of their exports are these products, with Slovenia being the best example of placement and use of protected products (Kalenjuk et al., 2010). The geographical indication shows the locality from which the labelled product originates, it provides these consumers with information from which country, region and place it originates, but also, due to originating from that locality, the product has specific properties, as a result of natural factors, skills of people from that geographical area or a combination of the two (Tešanović, Koprivica, 2007).

Products that have a geographical indication have a developed market both in Europe and the rest of the world. Research within the European Community has shown that an increasing number of consumers when buying food opt for products that bear a geographical indication, although such products fetch a higher price than conventional ones. Also, research conducted by Užar et al. (2022) showed that consumers who value quality of the products perceive GI as a confirmation of its quality and means of support to local producers. Examples from the EU countries show that a properly established system of GI inevitably brings huge economic benefits - this approach to ensuring the quality and brand of food products ensures the development of the region; it drives the economy, and above all, tourism in a certain region, especially rural areas (Savić, Đurić, 2008). From the aspect of healthy nutrition and a healthy natural environment, it can be said that tourism is vitally dependent on agriculture, although, on the other hand, it directly or indirectly encourages the prosperity of agriculture and the economy of a country (Vujović, 2007).

Producers mostly look at the economic side of this production, which is most often an excuse for its current realisation (Červenski et al., 2020). Several consumer studies have confirmed these two perspectives, shedding light on the fact that local food products can be seen as a way to support and protect the local agricultural economy (Onozaka et al., 2010), as well as a way to preserve the environment (Aprile et al., 2016). Agriculture is one of the few economic activities in Serbia that has been continuously recording a positive foreign trade balance for many years (Kovačević et al., 2020).

### **Literature Review**

The origin of food and the transparency of the food chain are also of interest to consumers due to the growing awareness of environmental and health concerns

(Skallerud, Wien, 2019). At the moment, the food sector is considered one of the most important in the global economy, which is certainly shown by FAO data, where the value of food production increased by 8% in the period 2007-2017, which amounts to 2.3 billion dollars, but we should not ignore the fact that the food sector and food industry continue to face many challenges in product management (Horvat et al., 2019; Pinna et al., 2017; Ryyänen, Hakatie, 2014).

Primary production and adequate distribution of products as products with GI attract great attention as a very important factor influencing consumer behaviour, in addition, this type of protection requires high quality products aimed at protection from unfair competition (Katerinopoulou et al., 2020).

Authors Ćirić et al. (2020) state that products with GI represent a system for the preservation of national identity and are extremely important for the authentic offer of gastro tourism. In this sense, gastronomic tourism is therefore based on the concept of knowledge and learning, consuming and enjoying the gastronomic culture that identifies with the territory (Fusté-Forné, 2020) which means that food tourism represents visits to food producers, food fairs and gastro festivals, events, markets or other forms of tourism based on food activities.

Geographical indication PDO, PGI, TSG represent an abbreviated name of products that originate from certain regions and follow the traditional production process, the European Union has defined four geographical indications, which differ from each other:

- Protected Designation of Origin (PDO), includes agricultural, food products and wines related to the products of a certain geographical area, considering that all segments of production, preparation and processing are performed in the same geographical area,
- Protected Geographical Indication (PGI), covers agricultural, food products and wines that are closely related to the geographical area, while at least one of the stages of production, processing or preparation takes place in this area, while in wine 85% of the grapes must be from that geographical climate,
- Traditional Specialty Guaranteed (TSG) covers food and agricultural products, this label indicates the traditional aspects of the product in the way it is made or its composition by linking it to a certain geographical area, protecting it from counterfeiting and misuse,
- Geographical indication of spirit drinks and aromatized wines (GI), protects the name of an alcoholic beverage or aromatized wine originating in a country, region or locality where the special quality, reputation or other characteristics of the product's core can be attributed to its geographical origin (European Commission 2023).

**Table 1.** Number of registered PDO, PGI, TSC, GI products

		<b>PDO</b>	<b>PGI</b>	<b>TSC</b>	<b>GI</b>
Applied	Food	78	101	7	-
	Wine	71	27	-	-
	Spirit drinks	-	-	-	14
Published	Food	16	25	1	-
	Wine	6	1	-	-
	Spirit drinks	-	-	-	1
Registered	Food	681	928	63	-
	Wine	1184	445	-	-
	Spirit drinks	-	-	-	259
Rejected	Food	-	3	0	-
	Wine	-	1	-	-
	Spirit drinks	-	-	-	-
Cancelled	Food	-	4	-	-
	Wine	2	-	-	-
	Spirit drinks	-	-	-	-

*Source:* EU DOOR database 2023

Based on EU data for 2023, shown in Table 1, a total of 1856 PDO products have been registered, 681 of which belong to the category of food and agriculture, while the remaining 1184 products belong to the category of wine. When it comes to TSG products, there are only 63 of them. Alcoholic beverages (GI) amount to 259 products. The largest number of registered PDO, PGI, TSG and GI products in 2023 can be found in Italy (880), followed by France with (753), Spain (349), Greece (277), Portugal (196), Germany (176), and the UK (83). When it comes to the surrounding area of Serbia, Croatia has 63 products, Hungary has 84 protected products, and Romania has 72 products with a designation of origin. Bulgaria has 75 products with a designation of origin. This number is often not correlated with the financial value of production and trade of PDO and PGI products, exercised by a Member State. For example, Portugal has a large number of products in the European register, given the fact that they are mostly low-value products (fruits and vegetables), this country has a very small financial turnover on a European scale. In contrast, Germany and the UK account for over 30% of total European turnover with a relatively small number of registered products (EU DOOR database, 2023).

There are multiple correlations between sustainability and geographical indications, products with geographical protection of origin can be considered as drivers of sustainable and rural development (Chilla et al., 2020). In particular, food tourism refers to the discovery of culture through food (Long, 2004). In this sense, gastronomic tourism is therefore based on the concept of knowledge and learning, consuming and enjoying a gastronomic culture that identifies with the territory (Fusté-Forné, 2020). Intellectual property rights have gained in value only in the last few years (Zarić et al., 2012). However, as the main shortcoming of the Law on Indications of Geographical Origin (Official Gazette 44/2018), authors should point out the fact

that Traditional Specialty Guaranteed (TSG) is not defined according to European legislation (Simović, 2015). As another inconsistency, two institutions participate in the process of registering geographical indications - Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia and Intellectual Property Office of the Republic of Serbia (Kovačević et al., 2022). According to the Intellectual Property Office in 2022, this list in Serbia includes 67 domestic products with a protected name of origin or geographical origin, which are registered in the name of domestic persons, which certainly represents a small number according to the potential. By inspecting the website of the Institute for Intellectual Property ([www.zis.gov.rs](http://www.zis.gov.rs)), it can be concluded that most of the listed products do not have active authorised users, i.e. 22 products do not have specified authorised users, which clearly shows that the geographic indication registration process is very demanding and insufficiently recognizable on the market. Of the total number of protected products in the world, 85% of products are related to agri-food products (Simin et al., 2016).

### **Materials and Methods**

In the research, 399 respondents participated, and over the course of March 2021, a questionnaire was distributed via social media (Facebook groups) in a free sample to the citizens of the Republic of Serbia. The questionnaire, which was used for the research, was taken over and modified based on the research Teuber, 2011 and Dragin et al., 2018. Before filling in the questionnaire, the respondents were introduced to the goal of the research, as well as the way of marking the selected answers. SPSS 20.0 was used for data processing. The results are presented graphically and tabularly. In order to determine the differences between the respondents by gender, in terms of attitudes about products with geographical indication, a t-test for independent samples was used. In order to compare the respondents by age and level of education in terms of attitudes about products with geographical indication, a one-factor analysis of variance was used. In order to examine the relationship between the sociodemographic characteristics of the respondents and the questions from the questionnaire originating from the nominal or ordinal measurement scale, the  $\chi^2$  test was applied. Pearson's correlation coefficient was used to determine the relationship between age and frequency of product consumption on the one hand and self-assessment of product knowledge on the other.

### **Results and Discussion**

#### **Analysis of Socio-Demographic Characteristics of Respondents**

Looking into Table 2, it is observed that one third of the respondents are male, while twice as many are female. Observed by age, there's a uniform number of respondents by groups. Namely, about 25% of respondents are in the following categories: up to 25 years, from 36 to 45 years, as well as over 45 years. Slightly fewer respondents, 21% are between 26 and 35 years old. The average age of the respondents is 37 years. Regarding the last obtained level of formal education, it can be said that there is a fairly balanced

percentage of respondents with High School (35%), College and University 33% and a degree in Specialized, Bachelor's Studies, Master's Degree or Doctorate 30%. The number of respondents who have only completed Primary School is negligible.

**Table 2.** Socio-Demographic Characteristics of the Respondents

Question	Claims	Value (n)	Share (%)
Gender	Male	129	32.30
	Female	270	67.70
Age range	Aged till 25	104	26.10
	Aged from 26 to 35	84	21.10
	Aged from 36 to 45	102	25.60
	Aged over 45	102	25.60
	Without answer	7	1.80
Degree of education	Primary school	8	2
	High School	141	35.30
	College or Faculty	132	33.10
	Specialized Academic Studies, Bachelor's Degree, Master's Degree, Doctorate	118	29.60

*Source:* Author's Research

The largest percentage of respondents are those who are Employed 63%, while 18% are Pupils/Students and about 13% are Unemployed. There are 4% of the Retired who participated in the research, and about 2% of Housewives. Observed by type of settlement, the sample is dominated by respondents who live in Cities about 80%, while every fifth respondent lives in the Countryside. Half of the respondents live in the Capital, and every fourth is a resident of Vojvodina. 7% of respondents come from Sumadija and Southern Serbia respectively, and about 5% of them are from Western Serbia. The smallest number of respondents is from Eastern Serbia 3% and from Kosovo and Metohija 0.5%. Regarding the economic status and considering the average income at the national level, it can be said that almost two thirds of the respondents estimate that they live in a household that can be qualified as a household of moderately satisfactory economic status. Every fourth respondent thinks that the material condition of their household is more modest, and every tenth thinks that they have a high economic status (Table 3).

**Table 3.** Workplace, Population, Region of Living, Material Status of the Respondents

Question	Claims	Value (n)	Share (%)
Representation of the Sample Structure by Employment Status	Unemployed	51	12.80
	Employed	252	63.20
	Retired	16	4
	Housewife	7	1.8
	Pupil/Student	73	18.30
Representation of the Sample Structure by the Type of Settlement	Countryside	84	21.10
	City	315	78.90
Representation of the Sample Structure by Region	Vojvodina	103	25.80
	Belgrade	203	50.90
	Sumadija	28	7
	Western Serbia	22	5.5
	Eastern Serbia	12	3
	Southern Serbia	29	7.3
	Kosovo and Metohija	2	0.5
Representation of the Sample Structure by the Economic Status of Households	Household of More Modest Economic Status	104	26.10
	Household of Medium Satisfactory Economic Status	257	64.40
	Household of High Economic Status	38	9.50

Source: Author's Research

### Descriptive Statistics

Respondents were able to express their views on products with protected geographical origin. They had 19 statements in front of them and answered by choosing one of the offered answers on the scale (I completely disagree, I disagree, I am not sure, I agree, I mostly agree).

**Table 4.** Distribution of respondents' responses to claims about products with a protected geographical area

Claims	AS	SD
By purchasing products with geographical indications, support is given to small producers	4.38	0.93
The purchase of products with geographical indications provides support to the local economy	4.41	0.90
I am willing to pay a higher price for products with geographical indications	3.92	1.12
Products with a geographical indications become recognizable due to a direct link with a certain geographical area, which gives them a special value	4.41	0.90
Products with geographical indications are custodians of cultural heritage	4.46	0.86



Claims	AS	SD
Products with a geographical indication achieve a better position on the domestic market	3.72	1.06
Products with a geographical indication achieve a better position on the international market	4.10	0.99
I believe that the awareness of the need to protect geographical indications is not sufficiently developed in our country	4.48	0.95
I believe that the promotion of products with a geographical indication contributes to the development of tourism	4.58	0.79

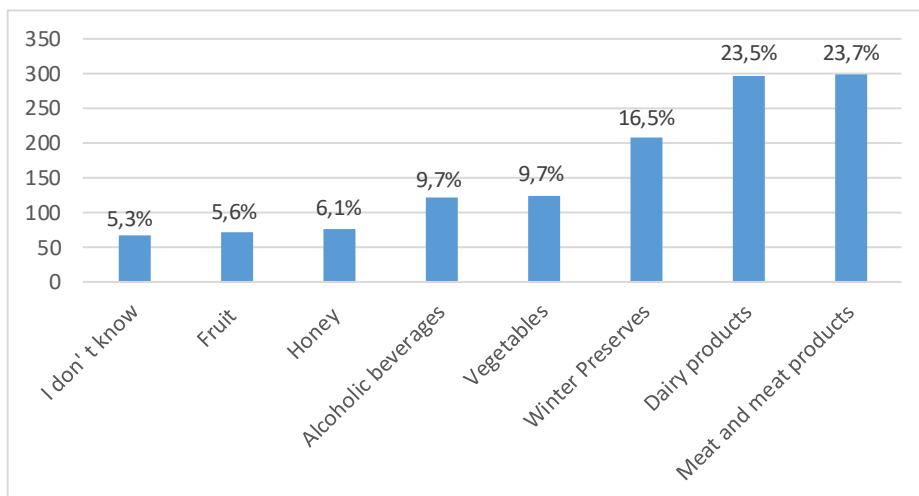
*Source:* Author's Research

Note: AS-arithmetic mean, SD-standard deviation

It can be stated that respondents express the highest degree of agreement (summarised categories I agree and mostly agree) with the statement "I believe that the promotion of products with a geographical indication contributes to the development of tourism", because this attitude is represented by 90% of them. Large % matches the claims that our country is not sufficiently developed in its awareness about the importance of geographical indication, that these products are custodians of cultural heritage, that they have special value due to connection with a specific geographical area, but also that their purchase supports small producers and the local economy. Respondents have a somewhat more reserved view of the claim that products with a geographical indication achieve a better position in the international market, although most of them agree, 17% of them are not sure that this is the case. Willing to pay a higher price for products with geographical indication, 18% are not sure of their position on this item reading, while every tenth respondent expresses disagreement with the statement. Respondents have a relatively divided opinion regarding the claim that products with a geographical indication achieve a better position in the domestic market, so about 60% of them express agreement, in whole or in part, while 30% of respondents are unsure of their position on this topic, and 10% do not agree with the statement (Table 4).

Respondents had the opportunity to list three domestic products that they know have a geographical indication. Almost all of them answered the question (only 10 out of 399 respondents did not give an answer), by mentioning one or more products. Most respondents mentioned: ajvar (163), Pirot sausage (82), Sjenica cheese (71), raspberry from Arilje (62) and Futog cabbage (59), honey (77). A total of 1264 responses were collected, grouped by product type. Graph 1 shows the responses of respondents categorised according to different product groups (Figure 1).



**Figure 1.** Overview of product categories with geographical indication according to the respondents

Source: Author's Research

It can be noticed that the respondents mostly mentioned meat products, but also dairy products, as products with geographical indication. In addition to them, a large share has products that can be classified as winter products, and a slightly smaller share has vegetables, alcoholic beverages, honey and fruits. About 5% of respondents answered that they do not know which products have a geographical indication. Some respondents listed specific products, but there were also those who listed a specific product category. There are a total of 299 answers related to meat products. Of the products belonging to vegetables, 123 responses were given, while a total of 122 responses are related to alcoholic beverages. Honey was listed as a food item 77 times, while a total of 71 responses concerned fruit (Chart 1).

**Table 5.** Distribution of respondents' responses to claims about products with geographical indication

Question	Claims	Value (n)	Share (%)
„Assess your knowledge of protected geographical indications from 1 to 5, with 1 being the lowest and 5 the highest.”	1	27	6.80
	2	84	21.10
	3	165	41.40
	4	81	20.30
	5	42	10.50
“I am interested in learning more about the subject of products with geographical indication.”	Yes	337	84.50
	No	62	15.50

Question	Claims	Value (n)	Share (%)
<i>“Do you think that the placement of products with geographical indication helps the development of the local economy and the region?”</i>	I completely disagree	4	1
	I disagree	8	2
	I am not sure	13	3.30
	I agree	102	25.60
	I mostly agree	272	68.20
<i>“Adequate placement of products with geographical indication on the catering market resulted in higher quality food in restaurants.”</i>	I completely disagree	6	1.50
	I disagree	10	2.50
	I am not sure	47	11.80
	I agree	132	33.10
	I mostly agree	204	51.10

Source: Author’s Research

By looking at Table 5, a normal distribution of results can be observed. Namely, most of the respondents 41% rated themselves with a medium grade, while about 20% of them gave themselves a grade of 2 or 4. Every tenth respondent thinks that he deserves the highest grade for his/her knowledge of products with geographical indication, while 7% of respondents rate themselves with the lowest grade. It can be stated that only 30% of respondents assess themselves as individuals who have relevant knowledge about this type of products, and that it is necessary to implement appropriate strategies and plans to make the population more familiar with products bearing the protected geographical indication, their characteristics and significance. Many respondents, 85%, express interest in getting more fully acquainted with the topic of products with protected geographical indication, which is not surprising, given the answers to the previous question. Half of the respondents express complete agreement, and a third claim that they agree that the placement of products with geographical indication helps the development of the local economy and the region. About 12% of respondents are unsure of their position on this issue, while 4% disagree. Respondents mostly agree that adequate placement of products with geographical indication on the catering market results in higher quality food in restaurants - about 70% express complete agreement, and 25% agree.

**Table 6.** Comparison of respondents by gender in terms of attitudes about products with geographical indication

Claims	Pol	N	M	SD	T	P
By purchasing products with geographical indication, support is given to small producers	male	129	4.2	1.1	-2.16	.031*
	female	270	4.5	0.9		
Products with geographical indication are custodians of cultural heritage	male	129	4.3	1.0	-2.05	.042*
	female	270	4.5	0.8		

Source: Author’s Research

Note: N - number of respondents, M - arithmetic mean, SD - standard deviation, t - statistics, p - statistical significance; \*\* significance at level 0.01.; \* significance at the level of 0.05.

The results of the t-test of independent samples show that there are statistically significant differences regarding the statement “Purchase of products with geographical indication gives support to small producers” between men and women, ( $t(211.174) = -2.16$ ,  $p = .031$ ). Namely, female respondents’ express agreement with the statement ( $AS = 4.5$ ,  $SD = 0.9$ ) to a greater extent compared to male respondents ( $AS = 4.2$ ,  $SD = 1.1$ ). Also, the existence of statistically significant differences was found regarding the statement “Products with geographical indication are custodians of cultural heritage” between men and women ( $t(207,976) = -2.05$ ,  $p = .042$ ). Namely, female respondents to a greater extent express agreement with the statement ( $AS = 4.5$ ,  $SD = 0.8$ ) compared to male respondents ( $AS = 4.3$ ,  $SD = 1.0$ ) (Table 6).

Regarding other claims, no statistically significant differences were found between male and female respondents.

**Table 7.** Comparison of average values on the scale of attitudes about products with geographical indication according to the age of the respondents

Claims		Sum of square	Df	Average square	F	P
By purchasing products with geographical indication, support is given to small producers	Between groups	7.074	3	2.358	2.733	.044
	Within groups	334.801	388	.863		
	In total	341.875	391			
The purchase of products with geographical indication provides support to the local economy	Between groups	6.302	3	2.101	2.614	.051
	Within groups	311.818	388	.804		
	In total	318.120	391			
I am willing to pay a higher price for products with geographical indication	Between groups	23.946	3	7.982	6.579	.000
	Within groups	470.748	388	1.213		
	In total	494.694	391			
Products with a geographical indication become recognizable due to a direct link with a certain geographical area, which gives them a special value	Between groups	4.289	3	1.430	1.777	.151
	Within groups	312.219	388	.805		
	In total	316.508	391			
Products with geographical indication are custodians of cultural heritage	Between groups	9.207	3	3.069	4.280	.005
	Within groups	278.219	388	.717		
	In total	287.426	391			
Products with a geographical indication achieve a better position on the domestic market	Between groups	16.354	3	5.451	4.983	.002
	Within groups	424.493	388	1.094		
	In total	440.847	391			
Products with a geographical indication achieve a better position on the international market	Between groups	29.294	3	9.765	10.518	.000
	Within groups	360.213	388	.928		
	In total	389.508	391			

Claims		Sum of square	Df	Average square	F	P
I believe that the awareness of the need to protect products with a geographical indication is not sufficiently developed in our country	Between groups	1.350	3	.450	.487	.691
	Within groups	358.395	388	.924		
	In total	359.745	391			
I believe that the promotion of products with a geographical indication contributes to the development of tourism	Between groups	8.313	3	2.771	4.451	.004
	Within groups	241.541	388	.623		
	In total	249.855	391			

Source: Author's Research

Note: Df - degrees of freedom, F - statistics, p - statistical significance

The results of the ANOVA test indicate that there are statistically significant differences regarding the statement "Purchasing products with geographical indication gives support to small producers between respondents of different ages." ( $F(3,388) = 2,733, p = .044$ ). A follow-up test for multiple comparisons (Tuckey HSD) found that respondents over the age of 45 statistically differed significantly from those under the age of 25 in terms of expressing a higher degree of agreement with the statement compared to younger respondents. While the statement "I am ready to pay a higher price for products with geographical indication" among respondents of different ages ( $F(3,388) = 6,579, p < .001$ ) just like the statement "Products with geographical indication are custodians of cultural heritage" ( $F(3,388) = 4,280, p = .005$ ). A follow-up test for multiple comparisons (Tuckey HSD) found that respondents aged 35 to 45 and over 45 were statistically significantly different from those under 25 in terms of expressing a higher degree of agreement with the above statement compared to younger respondents (Table 7).

The results of the ANOVA test indicate that there are statistically significant differences regarding the statement "Products with a geographical indication achieve a better position in the domestic market" between respondents of different ages ( $F(3,388) = 4,983, p = .002$ ), just as the statement "Products with a geographical indication achieve a better position in the international market" ( $F(3,388) = 10,518, p < .001$ ) and "I believe that the promotion of products with a geographical indication contributes to the development of tourism", just as is the case in previous statements ( $F(3,388) = 4,451, p = .004$ ). A follow-up test for multiple comparisons (Tuckey HSD) found that respondents over 45 years of age differed statistically significantly compared to respondents up to 25 years of age in terms of expressing a higher degree of agreement with the statement compared to younger respondents, while in the second and third statements found that respondents aged 35 to 45 years and over 45 years were statistically significantly different compared to respondents younger than 25 years. Also, in the second statement, the respondents belonging to the age group of 35 to 45 years are statistically significantly different from the respondents from 26 to 35 years of age in the sense that they agree more with the statement. No statistically significant differences ( $p > .05$ ) were found between

respondents of different age groups in terms of other claims concerning attitudes about products with protected geographical origin (Table 7).

**Table 8.** Comparison of average values on the scale of attitudes about products with geographical indication according to the level of education of the respondents

Claims		Sum of square	Df	Average square	F	P
By purchasing products with geographical indications, support is given to small producers	Between groups	1.644	2	.822	.980	.376
	Within groups	325.486	388	.839		
	In total	327.130	390			
The purchase of products with geographical indications provides support to the local economy	Between groups	4.884	2	2.442	3.159	.044
	Within groups	299.996	388	.773		
	In total	304.880	390			
I am willing to pay a higher price for products with geographical indications	Between groups	4.001	2	2.000	1.639	.195
	Within groups	473.401	388	1.220		
	In total	477.402	390			
Products with a protected geographical indications become recognizable due to a direct link with a certain geographical area, which gives them a special value	Between groups	.829	2	.414	.529	.590
	Within groups	304.220	388	.784		
	In total	305.049	390			
Products with geographical indications are custodians of cultural heritage	Between groups	.449	2	.224	.308	.735
	Within groups	282.687	388	.729		
	In total	283.136	390			
Products with a geographical indication achieve a better position on the domestic market	Between groups	5.609	2	2.805	2.536	.080
	Within groups	429.005	388	1.106		
	In total	434.614	390			
Products with a geographical indication achieve a better position on the international market	Between groups	1.016	2	.508	.523	.593
	Within groups	376.892	388	.971		
	In total	377.908	390			
I believe that the awareness of the need to protect products with a geographical indication is not sufficiently developed in our country	Between groups	1.315	2	.658	.737	.479
	Within groups	346.358	388	.893		
	In total	347.673	390			
I believe that the promotion of products with a geographical indication contributes to the development of tourism	Between groups	3.715	2	1.857	3.086	.047
	Within groups	233.497	388	.602		
	In total	237.212	390			

Source: Author's Research

Note: Df - degrees of freedom, F - statistics, p - statistical significance

The results of the ANOVA test indicate that there are statistically significant differences regarding the statement “Purchasing products with geographical indication gives support to the local economy”, between respondents of different levels of education ( $F(2,388) = 3,159, p = .044$ ), just as with the statement “I believe that the promotion of products with a geographical indications contributes to the development of tourism ”among respondents of different levels of education ( $F(2,388) = 3,086, p = .047$ ). A follow-up test for multiple comparisons (Tuckey HSD) found that more educated respondents (with completed specialist academic studies, master’s degree, master’s degree and doctorate) were statistically significantly different from respondents with completed high school in terms of greater agreement with the statement, while in the second statement, it was determined that the respondents with higher education differ statistically significantly from the respondents with completed high school and college in the sense that the most educated respondents express a more affirmative attitude regarding the stated statement in relation to the others. No statistically significant differences ( $p > .05$ ) were found between respondents of different levels of education in terms of other claims concerning attitudes about products with protected geographical indications (Table 8).

**Table 9.** Relationship between age and self-assessment of knowledge about products with geographical indications

		Self-assessment
Age	Pearson Correlation	.116*
	Sig.	.022
	N	392

Source: Author’s Research

Note: Pearson Correlation – statistics, Sig. – statistical significance, N – number of respondents

\*\* significance at level 0.01.; \* significance at the level of 0.05.

The results of Pearson’s correlation indicate that there is a statistically significant positive correlation between the age of the respondents and the self-assessment of knowledge about products with protected geographical indications ( $r(390) = .116, p < .05$ ). Although the correlation is significant, it is very low and indicates that the older the respondents, the more positively they assess their knowledge (Table 9).

## Conclusion

The geographical indication system plays a very important role in the regional economy, given that such products are the drivers of the region’s economy. Regarding the comparison of respondents’ attitudes towards products with geographical indications, it can be said that women were more likely to believe that the purchase of these products supports small producers, as well as that products with a geographical indication are custodians of cultural heritage. Also, older respondents (over 45 years of age) differ statistically significantly and agree to a greater extent with most claims about products with geographical indications compared to the youngest category of respondents (younger than 25 years). Considering

that the claims are primarily affirmative, it can be concluded that older respondents show a higher level of understanding and evaluation of these products. When it comes to the educational structure, there are differences in terms of claims that the purchase of these products supports the local economy and contributes to the development of tourism in the sense that more educated respondents are more in line with these claims than those with lower education. When it comes to self-assessment of knowledge of respondents in relation to products with geographical indications, no connection has been established between self-assessment of knowledge and gender, i.e., education of respondents. Older respondents rate their knowledge with a slightly higher grade, as do those who more often consume products with a geographical indication.

The limiting factors are reflected in the fact that the number of male respondents is insufficiently represented, just like the number of respondents according to employment status. It should also be emphasised that the number of respondents from rural areas is insufficiently represented, as well as the uneven response of respondents in the regions of Serbia, which can certainly affect different attitudes and habits. While in terms of material status, the number of respondents is also not equal, which can completely change the perception of attitudes and habits of consumers about products with geographical indications. Therefore, as one of the recommendations for further research, it is possible to refer to the necessity of wider research, i.e., in a more correct distribution of respondents, in order to obtain more relevant data that would enable a great variety of attitudes and habits about products with geographical indications. It should also be pointed out that as a limiting factor, producers are not interested in the certification process, given that the certification process itself is expensive, and that customers do not recognize and do not want to favour products for geographical indications.

Recommendations for future research can go in the direction of examining consumers about the familiarity of which food has a GI and how many customers recognize the Serbian GIs label.

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### Conflict of interests

The authors declare no conflict of interest.

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