### IMPACT OF CERTAIN DEMOGRAPHIC CHARACTERISTICS ON CONSUMER ATTITUDES ABOUT ORGANIC AGRICULTURAL AND FOOD PRODUCTS IN THE REPUBLIC OF SERBIA

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## ARTICLE INFO

### ABSTRACT

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The main objective of this paper is to examine the attitudes and opinions of respondents about organic agricultural and food products, as well as motives for buying this type of products, depending on their gender, education and age, because it is assumed that they have the strongest influence on consumer attitudes. Data were obtained through survey questionnaires, on the territory of the Republic of Serbia. The research was conducted on a random sample of 369 respondents. The Chi square independence test was used to study the set assumptions. The results of the research indicated that the analysed demographic factors had certain influence on the opinion and attitudes of the respondents about ecological agricultural and food products, as well as on the motives for their use.

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### Introduction

Numerous papers have been published analysing the behaviour of buyers of organic products. By studying these works, it can be concluded that there is no general agreement on the factors that unambiguously determine the profile and pattern of behaviour of buyers of organic products (Brčić - Stipčević and Petljak 2011). This could be explained by the fact that researches have been conducted in different conditions and in countries of different level of development (Pillai 2012). Certain authors believe that most of the papers in this area are based on research conducted in developed countries, especially in the USA, less in developing countries (Morel and Kwakye 2012). Research on the attitudes and opinions of organic food consumers in the Republic of Serbia, in the opinion of some researchers, is very scarce (Vehapi 2014). This situation certainly requires that the relationship between individual socio-demographic variables and the purchase of organic products be further examined, and thus contribute to a better understanding of the overall picture of the impact of certain socio-demographic variables on customer behaviour when buying organic products in each of the observed areas, territories, states, or any type of other geographical, economic, or political entities. This is also suggested by the research of other authors in this field, e.g. Kranjac et al. (2017), whose study was also based on the hypothesis that the profile of organic food consumers depends on their socio-demographic characteristics.

### Materials and methods

The research data was collected on the basis of a survey, conducted during 2017, in several cities in the territory of the Republic of Serbia (Belgrade, Subotica, Novi Sad, Niš, Leskovac, Loznica, etc.), on a random sample of 369 respondents. The data was collected mainly directly through face-to-face interviews with respondents, partly on the streets, partly in front of food stores or in front of faculty buildings. In order to gain the most complete insight into the research problem, i.e. to design or make a concept and test the questionnaire for the realization of field research, and thus to better prepare the survey, the interview method was first used. The survey was conducted on the basis of a questionnaire consisting of 9 "closed" type questions (Appendix 1). Respondents completed the questionnaire on their own, which took about 10 minutes on average. Most of the respondents answered all the questions. Conclusions on the significance of the difference in the frequency of choosing the offered answers to the questions were made based on the results of the  $\chi^2$ -test. A  $\chi^2$ -test of independence was used to examine whether the layout of answers to the questions depended on the gender of the respondents, their age and their education, because it was assumed that they had the strongest influence on consumer attitudes. All conclusions were made in relation to the standard significance levels of 0.05 and 0.01. The following software packages were used for statistical data processing: Microsoft Excel by Microsoft, Statistics by StatSoft, Inc., Tulsa, OK, USA.

#### **Results and discussions**

Total of 369 persons were included in the research, 45.60% male, and 54.40% female. According to the results of the  $\chi^2$  test ( $\chi^2=2.813$ , p=0.093), there was no statistically significant difference in the representation of the sexes in the examined sample. Regarding the age distribution of the interviewed persons, it differed statistically very significantly ( $\chi^2$ =180.986; p<0.001). Most of respondents were under 24 years old (41.64%), followed by the 25-34-year-old group (29.86%), then the 45-64-year-old group, which represented 15.89% of the sample, and the 35-44-year-old group made up 10.41% of the sample. Respondents older than 65 years were the least represented in the sample, 2.19%. Therefore, the younger population predominated, given that almost three quarters of respondents (71.50%) were under 35 years old. The surveyed persons were not evenly distributed by education level ( $\chi^2=74.190$ ; p<0.001). In the sample, the most respondents were with a secondary vocational education (47.99%), followed by respondents with higher professional education (39.94%), and the least number of respondents with a university degree (12.07%). The number of respondents with secondary vocational education and university education did not differ statistically significantly from each other ( $\chi^2$ =2.562; p=0.109), but it differed very significantly in relation to the number of respondents with completed higher education ( $\chi^2$ =74.761; p < 0.001 and  $\chi^2 = 51.200$ ; p < 0.001).

1. Very significantly higher number (287), of 365 respondents, believed in certified organic food ( $\chi^2$ =119.674; p<0.001). 77.11% of 166 male respondents, and 79.70% of 198 females, believed in certified organic food, so the results of the independence test ( $\gamma^2=0.220$ ; p=0.639) indicated that gender did not statistically significantly affect the belief in certified organic food. It was also concluded that the structure of the answer to this question did not depend statistically significantly on the age of the respondents ( $\chi^2$ =4.694; p=0.320). As the respondents older than 64 answered positively in 50% of cases, and from other age groups in more than 76% of cases, and that only 8 respondents were in the oldest group, to verify the conclusion, Fisher's test of exact probability was used to compare the structure of the oldest and other groups. Obtained probabilities: 0.070; 0.056; 0.196 and 0.189 confirmed that the response structures of the oldest and other groups did not differ statistically significantly. Also, 76.51% of 167 respondents with secondary education, 88.10% of 42 respondents with higher professional education and 83.45% of 139 with university education, believed in certified organic food. According to the results of the independence test,  $\chi^2$ =4.025 and p=0.134, the belief in the certified organic food did not depend statistically significantly on the education of the respondents.

2. Very significantly higher number of respondents (211 out of 368) believed that organic food was free of pesticide residues, additives and mycotoxins ( $\chi^2$ =7.924; p=0.005). The study showed that 51.20% of male and 61.20% of female respondents belived that organic food was free of pesticide, additive and mycotoxin residues. The results of the independence test indicated that gender did not statistically significantly affect the opinion of the respondents ( $\chi^2$ =3.557; p=0.059). Also, 56.58% of respondents under the age of 24, 61.47% of respondents aged 25-34, 44.74% of respondents aged 35-44, 65.52% aged 45-64 and 37.81% http://ea.bg.ac.rs

of respondents aged 65 and over believed that organic food was free of pesticides, additives and mycotoxins. The results of the independence test ( $\chi^2$ =6.121; p=0.190) indicated that the opinion did not depend statistically significantly on the age of the respondents. Also, 57.49% of the respondents with secondary education, 54.76% with higher professional education and 61.15% with university education believed that organic food was free of pesticide residues, additives and mycotoxins. Education did not statistically significantly affect their opinion ( $\chi^2$ =0.714; p=0.700).

3. When asked what price they would pay for organic products compared to the same conventional products, 366 respondents produced answers. The frequency of choosing offered answers differed statistically very significantly ( $\gamma^2=245.202$ ; p<0.001). Up to 25% higher price for organic products compared to the same conventional ones would be paid by 53.01% of respondents, price higher by 26-50% would be paid by 32.24% of respondents, 51-75% higher price would be paid by 9.84% of respondents and 76-100% higher price would be paid by 4.92% of respondents. Statistically, significantly more respondents would pay up to 25% higher price compared to the number of respondents who would pay: higher price by 26-50% ( $\chi^2$ =18.513; p<0.001), higher price by 51-75% ( $\chi^2$ =108.539; p<0.001) and higher price by 76-100% ( $\chi^2$ =146.113; p<0.001). Also, statistically very significantly higher number of respondents would pay price higher by 26-50% compared to the number of respondents who would pay: higher price by 51-75% ( $\chi^2$ =43.662; p<0.001) and price higher by 76-100 ( $\chi^2$ =73.529; p<0.001). The share of respondents who would pay price higher by 51-75% and by 76-100% differed statistically significantly ( $\chi^2$ =6.000; p=0.014) in favour of those who would pay price higher by 51-75%. In regard to the gender, male respondents, 59.64% were willing to pay up to 25% higher price for organic products, 27.71% of male respondents were willing to pay price higher by 26-50%, 7.23% respondents were willing to pay price higher by 51-75% and 5.42% of respondents were willing to pay price higher by 76-100%. In case of female respondents, the ratio was 47.98%: 36.36%: 12.12%: 3.54%. According to the independence test ( $\chi^2$ =7.305; p=0.063), gender did not statistically significantly affect how much more the buyer would pay for organic products. The age of respondents had statistically significant effect on how much they were willing to pay more for organic products ( $\chi^2$ =25.677; p=0.012). The highest number of respondents under the age of 34, as well as those aged 65 and over, were willing to pay up to 25% higher price for organic products (Figure 1). The oldest respondents were not willing to pay more than 50% higher price for organic products. Respondents aged 34 to 64 were willing to pay a price higher by more than 25%. The response structure of the youngest respondents did not differ statistically significantly from the response structures of respondents aged 25-34 years ( $\chi^2$ =5.506; p=0.138) and 65 and older ( $\chi^2$ =0.851; p=0.837), and differed statistically very significantly in relation to the response structures of respondents from the age group 35-44 years ( $\chi^2$ =12.910; p=0.004) and 45-64 years ( $\chi^2$ =15.678; p=0.001).





Source: Authors' calculations

The structure of answers of the respondents from the age group 25-34 did not differ statistically significantly from the answers of the respondents from the older age groups (respectively:  $\chi^2=3.973$ ; p=0.264,  $\chi^2=5.224$ ; p=0.156 and  $\chi^2=2.238$ ; p=0.524). Respondents aged 35-44 and 45-64 responded in the same way ( $\chi^2=0.357$ ; p=0.949), and the structure of their responses did not differ from the response structure of the oldest respondents ( $\chi^2=4.585$ ; p=0.205 and ( $\chi^2=4.858$ ; p=0.182). The education of the respondents did not statistically significantly affect how much more they were willing to pay for organic products ( $\chi^2=5.435$ ; p=0.489). Regardless of education, the majority of respondents were willing to pay up to 25% higher price for organic products, and the least respondents were willing to pay price higher by 76-100% (Figure 2).

**Figure 2.** Structure of responses of respondents of different educational level according to by how many percent higher price they were willing to pay for organic products compared to the same conventional products



Source: Authors' calculations

4. Of the 364 respondents who answered the question "Do you think you are sufficiently informed about organic food?", the number of those who believed that they were sufficiently informed about organic food (106, i.e. 29.12%) was statistically very significantly lower ( $\gamma^2$ =63.473; p<0.001). Also, 28.31% of male respondents and 30.10% of female respondents believed that they were sufficiently informed about organic food. According to the independence test, gender did not statistically significantly affect the opinion of respondents regarding their knowledge about organic food ( $\chi^2$ =0.066; p=0.797). Among respondents under the age of 24, 15.13% believed that they were sufficiently informed about organic food. In case of respondents aged 25-34, 41.67% were of the same opinion, in the category 35-44 years 34.21% believed that they were sufficiently informed about organic food, 40.35% of the respondents in the group 45-64 believed that they were sufficiently informed about organic food and in case of respondents over 65 years of age 12.50% believed that they were sufficiently informed about organic food. Based on the results of the independence test ( $\chi^2$ =27.781; p=0.001), the age of the respondents had statistically significant effect on the opinion on information about organic food. Considering that 24.10% of respondents with secondary education believed that they were sufficiently informed about organic food, 30.95% of the respondents with higher-professional education, and 37.41% of those with university education, results of the independence test ( $\gamma^2$ =6.365; p=0.041) indicated that the education of the respondents had statistically significant effect on their attitude towards level of information about organic food. Further examination revealed that, according to how informed the respondents were, only respondents with secondary and university education differed statistically significantly. ( $\chi^2 = 5.749$ ; p=0.016).

5. The frequency of choosing offered answers to the question **about motives for buying organic food** (Figure 3) differed statistically significantly in the whole sample ( $\chi^2$ =375,831; p<0.001), as well as especially in male ( $\chi^2$ =178.494; p<0.001) and female ( $\chi^2$ =198.546; p<0.001) respondents.



Figure 3. Representation of motives for purchasing organic food for all respondents and especially individual genders

Source: Authors' calculations

Survey participants who answered this question (367) were most often motivated to buy organic food by health consideration/safety (41.69%). Statistically very significantly higher number of respondents cited health safety as a motive for buying organic food compared to other offered motives (respectively:  $\chi^2$ =90.106;  $\chi^2$ =60.310;  $\chi^2$ =75.727;  $\chi^2$ =135.906;  $\chi^2$ =66.161;  $\chi^2$ =100.138 and  $\chi^2$ =84.484; p<0.001) Animal protection was a motive for the purchase of organic food that was mentioned the least (1.63%), with a statistically very significantly rarely cited motive compared to all other offered motives (respectively:  $\chi^2 = 12.500; \chi^2 = 28.880; \chi^2 = 135.906; \chi^2 = 19.600; \chi^2 = 25.130; \chi^2 = 8.333 \text{ and } \chi^2 = 15.114; p < 0.01).$ In relation to quality, respondents attributed statistically significantly less importance to better taste ( $\chi^2$ =4.629; p=0.031) and statistically very significantly less to the presence of food additives and preservatives ( $\chi^2$ =8.138; p=0.004). Since the results of the independence test indicated that gender did not statistically significantly affect the motivation leading to the purchase of organic food ( $\chi^2$ =4.023; p=0.855), the conclusions about the relationship between motives in the whole sample are valid for both genders. Motivation leading to the purchase of organic food was not statistically significantly affected by the age of the **respondents** ( $\chi^2 = 19.03$ ; p=0.583), Figure 4.

Figure 4. Structure of response0s of respondents of different ages according to the motives leading to the purchase of organic food



Source: Authors' calculations

Motivation leading to the purchase of organic food was not statistically significantly affected by education ( $\chi^2$ =8.13; p=0.774) (Figure 5).





Source: Authors' calculations

6. Statistically, significantly higher number of respondents (258) claimed they bought organic food ( $\chi^2$ =62.468; p<0.001). Respondents most often bought organic food in health food stores (42.13%), then in green markets (31.10%) and supermarkets (22.83%), and least often in hypermarkets (3.94%). The distribution of respondents by place of **purchase** differed statistically very significantly ( $\chi^2=79.134$ ; p<0.001). Respondents bought organic food significantly more often in supermarkets than in hypermarkets ( $\gamma^2$ =33.882; p<0.001) and less often than in health food stores ( $\gamma^2$ =14.552; p<0.001). In hypermarkets, statistically significantly less organic food was bought in relation to green markets ( $\chi^2$ =53.494; p<0.001) and health food stores ( $\chi^2$ =80.419; p<0.001). Statistically significantly more respondents bought organic food in health food stores compared to the number of respondents who bought organic food in green markets ( $\chi^2$ =4.215; p=0.040). Also, 71.52% of male and 69.54% of female respondents stated that they bought organic food. According to the results of statistical testing ( $\chi^2$ =0.086; p=0.769), male and female respondents bought organic food equally. Male respondents most often bought organic food in green markets (34.75%), then in health food stores (33.90%), supermarkets (27.97%) and rarely in hypermarkets (1.69%). Female respondents most often bought organic food in health food stores (46.72%), then in green markets (27.74%), supermarkets (18.25%) and least often in hypermarkets (5.84%). Remaining respondents, 1.7% of male and 1.46% of female respondents, bought organic products in several places. By comparing the response structures, it was found that gender did not statistically significantly affect the choice of place of purchase of organic food ( $\chi^2$ =8.99; p=0.061). Organic products are bought by 59.87% of respondents under the age of 24, by 77.78% of respondents from the age group 25 to 34, 71.05% from the age group 35 to 44 and 84.62% aged 45 and older. The results of the independence test ( $\chi^2$ =17.330; p<0.001) indicated that age groups differed statistically significantly in the participation of respondents who bought organic food. This difference 1372 http://ea.bg.ac.rs was a consequence of a very significant difference between the youngest respondents and respondents aged 25 to 34 years ( $\chi^2$ =8.407; p=0.004), as well as respondents aged 45 years and older ( $\chi^2 = 11.570$ ; p<0.001). Our study showed that 27.47% of respondents under the age of 24, claimed they bought healthy food in supermarkets, 36.26% in green markets and 29.67% in health food stores. Respondents aged 25 to 34 stated that they bought healthy food in supermarkets in 21.43% of cases, in green markets in 20.24% of cases, and in health food stores in 50.00% of cases. Persons in the age group 35 to 44 years most often bought healthy food in health food stores (51.85%), followed by supermarkets (25.93%) and green markets (18.52%). Of the respondents aged 45 and over, 43.64% claimed they bought healthy food in green markets and health food stores, and 12.73% in supermarkets. Several answers to this question were given by 6.59% of respondents aged up to 24 years, 8.33% of respondents aged 25 to 34 years, 3.70% respondents aged 35 to 44 years and 00.00% respondents 45 years of age and older. By comparing the response structures of respondents from four age groups, it was established that the age of respondents statistically significantly affected the choice of places/locations for the purchase of organic food ( $\chi^2$ =21.680; p=0.0099). Further testing by two age groups found that respondents up to 24 years of age differed statistically significantly in the place of purchase of healthy food from respondents aged 25 to 34 ( $\chi^2$ =9.332; p=0.025) and respondents aged 45 and over ( $\chi^2$ =9.418; p=0.024). Also, statistically very significant difference was found in the place of purchase of organic food between respondents aged 25 to 34 and 45 and over ( $\chi^2$ =12.440; p=0.006). Also, 70.66% respondents with secondary education claimed they bought organic food, 78.05% of respondents with higher-professional education and 69.57% with university education. The test results,  $\chi^2=1.137$  and p=0.566, indicated that the decision of the respondents to buy organic food did not depend on the level of education. Respondents with secondary education most often bought organic food in green markets (39.83%), and those with higher-professional education (56.25%) and university education (46.88%) in health food stores. Also, 33.90% of respondents with secondary education bought organic food in health food stores and 22.03% in supermarkets. Of the respondents with higherprofessional education, 21.88% bought healthy food in supermarkets and 18.75% in green markets. Among respondents with a university education, 25.00% bought organic food in green markets and 20.83% in supermarkets. Other respondents claimed they bought organic food in several locations. The choice of places for the purchase of organic food did not significantly depend on the education of the customer ( $\chi^2$ =10.81; p=0.094).

7. Statistically very significantly higher number of respondents, 251 of 366 who answered the question, **found it difficult to find organic products** ( $\chi^2$ =50.536; p<0.001). Given that 68.67% of male and 69.19% of female respondents found it difficult to find organic products, the independence test showed that the opinion on whether it was difficult to find organic products did not depend statistically significantly on the gender of the respondents ( $\chi^2$ <0.001; p=0.994). Also, 61.18% of respondents up to 24 years of age, 66.97% of respondents 25-34 years of age, 84.21% of respondents 35-44 years old, and 81.03% of respondents 45-64 years old claimed that it was difficult to find organic products, as well as 62.50% of respondents 65 years of age and older. The results of the independence test

 $(\chi^2=12.590; p=0.013)$  indicated that the age of the respondents had statistically significant effect on the attitude about whether it was difficult to find organic products. Among respondents with secondary education, 67.66% believed that it was difficult to find organic products. This was perceived in the same way by 71.43% of respondents with higher-professional education, and 71.22% of those with university education. The education of the respondents did not statistically significantly affect the position on whether it was difficult to find organic products ( $\chi^2=0.534; p=0.766$ ).

8. When asked why they did not buy organic food, the respondents were offered the following answers: due to high prices, insufficient availability, insufficient information, doubts about the correctness of production, i.e. manufacturers, insufficient product range, lack of interest in them and unattractive appearance of products (Figure 6). The frequency of responses was statistically very significantly different ( $\chi 2=194.268$ ; p<0.001). The high price of organic food was the predominant reason for not purchasing the organic products, since the number of respondents who chose this answer was statistically very different from the number of respondents who chose other reasons (respectively:  $\chi^2=28.805$ ;  $\chi^2=53.878$ ;  $\chi^2=10.971$ ;  $\chi^2=63.291$ ;  $\chi^2=63.291$  and  $\chi^2=109.441$ ; p<0.001). Insufficient availability was statistically more significant reason for not purchasing organic products than insufficient information ( $\chi^2=4.846$ ; p=0.028), statistically less significant reason than suspicion in the correctness of production, i.e. producers ( $\chi^2=4.562$ ; p=0.033), and statistically highly significant reason compared to the insufficient range of products ( $\chi^2=8.576$ ; p=0.003), lack of interest in them ( $\chi^2=8.576$ ; p=0.003) and unattractive appearance ( $\chi^2=38.111$ ; p<0.001).



Figure 6. Share of respondents according to the reasons why they did not purchase organic food

Source: Authors' calculations

For the respondents, insufficient information was much less important than doubt/ reservations about the correctness of production (manufacturers) ( $\chi^2=18.241$ ; p<0.001) and much more important than unattractive appearance ( $\chi^2=18.667$ ; p<0.001). Statistically significantly higher number of respondents stated an insufficient assortment/range of organic products and lack of interest in them compared to the unattractive appearance as a reason not to buy them ( $\chi^2$ =13.444; p<0.001). Gender did not statistically significantly affect **the opinion of respondents regarding the reason** for not buying organic food ( $\chi^2$ =3.741; p=0.809), (Figure 7).



Figure 7. Structure of responses of respondents of different gender in regard to the reasons for not purchasing organic products

The age of respondents did not statistically significantly affect their attitude regarding the reason for not buying organic food ( $\chi^2$ =23.33; p=0.077) (Figure 8).

Figure 8. Structure of responses of respondents of different ages in regard to reasons for not purchasing the organic food



Source: Authors' calculations

Source: Authors' calculations

# Education level statistically significantly influenced the attitude of respondents regarding the reason for not buying organic food ( $\chi^2=24.060$ ; p=0.007), (Figure 9).



Figure 9. Structure of responses of respondents of different education levels according to reasons for not purchasing the organic food

Source: Authors' calculations

The response structures of respondents with secondary and higher-professional education did not differ statistically significantly ( $\chi^2$ =3.411; p=0.637), but they differed very significantly from the structure of responses with university education ( $\chi^2$ =15.330; p=0.009 and  $\chi^2$ =16.570; p=0.005).

**9.** Statistically very high number (300, i.e. 82.19%) of 365 respondents who answered this question believed that **the organic food market** in Serbia was underdeveloped ( $\chi^2$ =151.301; p<0.001). The study showed that 82.53% of male and 81.82% of female respondents believed this. The results of the independence test ( $\chi^2$ =0.002; p=0.969), showed that gender did not statistically significantly affect the respondents' attitudes. Also, 80.26% of respondents under the age of 24, 84.% aged 25-34, 84.21% aged 35-44 and 81.03% aged 45-64 believed that the organic food market in Serbia was underdeveloped, as well as 87.50% of respondents 65 years of age and older. The results of the independence test ( $\chi^2$ =1.063; p=0.900) indicated that the age of the respondents did not statistically significantly affect their espondents with secondary education, 80.95% with higher education and 83.45% with university education believed that the organic food market in Serbia was underdeveloped. The respondents' education did not statistically affect their attitude ( $\chi^2$ =0.182; p=0.913).

The results obtained in the research are completely consistent with some researches cited in the paper by Anić et al. 2015, which were conducted in the field of purchasing organic products, and which also show that there are no significant differences between female and male consumers in attitudes towards the protection of the environment, as well as behavioural differences in the purchase of organic products (Schultz et al. 1995;

Konstadinos et al. 2010; Shahnaei 2012; Pillai 2012; Brčić-Stipčević et al. 2013). In contrast, the research of some other authors indicates certain differences in behaviour between male and female consumers. These differences may occur as a result of different sample sizes, different sample structures in relation to certain demographic parameters, as well as differences in the temporal and spatial components of sampling. For example, according to some earlier research conducted at the end of the last century, female and male consumers differ in their attitudes and behaviour when shopping (Underhill 1999). Female respondents from Generation Z were often recognized as main buyers of organic food (Vehapi and Mitić 2021). Namely, traditionally observed, it is a common opinion that men do not like to go shopping, that they are very impatient when they participate in shopping and buy less than women, while, unlike them, women like to go shopping, have higher expectations and they do most of the shopping for the household (Underhill 1999; Mitchell and Walsh 2004). The division in the results of the mentioned research could be partly explained by the fact that traditional values and attitudes began to gradually disappear and some new social values are formed. This trend is especially present in developed countries. Namely, over time, women became more and more involved in the labour market, their income was increasing, so they had less and less time to shop. Because of that, men had to devote more and more time to jobs that women did not manage to do, which, among other things, meant shopping. The differences in the behaviour of male and female consumers when buying organic products was also stated by researchers in the more recent studies. In their studies, these researchers have concluded that, compared to male consumers, female consumers prefer organic products, they have more positive attitude towards them, they recycle products more, they are willing to pay a higher price for organic products, they tend to make recommendations to friends and buy more organic products (Diamantopoulos et al. 2003; Memery et al. 2005; D'Souza et al. 2007; to Paço et al. 2009; Konstadinos et al. 2010; Banytė et al. 2010; Morel and Kwakye 2012; Ranogajec et al. 2013). Understanding the influential factors that determine consumers' decision to purchase organic food can help all stakeholders to raise awareness of organic product characteristics and organic food production, consumption, pricing and market potential determination (Vapa-Tankosić et al., 2018). However, it is stated that the education of the respondents has a statistically significant effect on the opinion regarding their information about organic food, as well as on the reasons why they do not buy organic food. Research indicates that consumers with a higher level of education have more knowledge about environmental issues and their protection (Diamantopouloset et al. 2003; Memery et al. 2005; D'Souza et al. 2007; do Paço et al. 2009; Banyte et al. 2010). Although there are studies showing that caring for the environment is not a sufficient motive for educated consumers to buy organic products, quite a number of studies show that more educated consumers are more concerned about the environment (Royne et al. 2011), they are more inclined to recycle products (Diamantopoulos et al. 2003; Konstadinos et al. 2010), they care more about eating "healthy" food (Radojević et al. 2021), and they are more inclined to apply a lifestyle based on the consumption of organic products and they are more inclined to buy organic products (Konstadinos et al. 2010). Similar research was conducted in our neighbouring

Republic of Croatia. They have showed that buyers of organic food products have a higher level of education (Brčić-Stipčević and Petljak 2011, Brčić-Stipčević et al. 2013, Cerjak et al. 2010). It is also stated that the age of the respondents has a statistically significant effect on the price they would pay for organic products in relation to the same conventional products, and statistically very significant effect on the opinion regarding their information about organic food, also where they buy organic food, and on their opinion on whether they find it difficult to find organic products on the market. As shown by the results of research by other authors, the age of respondents has some influence on changes in consumer attitudes (Royne et al. 2011), their willingness to recycle products, as well as the purchase of organic products (Konstadinos et al. 2010). However, in contrast, there are studies that suggest no relationship between respondents' age and their behaviour when buying organic products, and that further research is needed to confirm the relationship of this kind (Royne et al. 2011, Pillai 2012; Cerjak et al. 2010, Brčić-Stipčevič et al. 2013). Research suggesting this association shows that younger consumers are more sensitive to environmental problems, as well as that they are buyers of organic products (Memery et al. 2005; D'Souza et al. 2007). Other research shows the opposite, i.e. that older consumers are more prone to product recycling (Diamantopoulos et al. 2003; to Paço et al. 2009; Banytė et al. 2010; Konstadinos et al. 2010). Older consumers show more concern for the environment and for eco-labels on products (D'Souza et al. 2007). Younger consumers, aged 18 to 24, are less likely to buy organic products (Morel and Kwakye 2012), while so-called "green consumers" are between 30 and 44 years old (Banytė et al. 2010). The research by Ranogajec et al. 2013, also suggests that older people within the household are in charge of the decision to purchase organic food products.

### Conclusions

From the results obtained in the study, it can be concluded that significantly higher number of respondents bought organic food most often in health food stores and green markets, stated health safety as a motivation, believed in certified organic food, and that it was free of pesticide residues, additives and mycotoxins, stated that it was difficult to find organic products on the market, and that the organic food market in Serbia was underdeveloped. With the increase in the prices of organic food the share of respondents who were willing to pay decreased. The age of the respondents had a statistically significant effect on how much more the respondents were willing to pay. Statistically very significantly less respondents thought they were sufficiently informed about organic food. With a higher level of education, the attitude of respondents believing that they were sufficiently informed about organic food increased. The percentage of respondents who believed that they were sufficiently informed about organic food was the highest in the group from 25 to 64 years of age. As the reason why they did not buy organic food, the highest number of respondents stated the high price, followed by the suspicion/doubt about the correctness of the manufacturers, insufficient availability, and insufficient information. The analysis showed that gender did not statistically significantly affect the opinion of the respondents regarding any of the questions asked in the survey questionnaire. Still, the education of the respondents has a statistically significant effect on the opinion regarding their information about organic food, as well as on the reasons why they do not buy organic food. The age of the respondents also has a statistically significant effect on the price they would pay for organic products in relation to the same conventional products, and statistically very significant effect on the opinion regarding their information about organic food, and where they buy organic food, and also on their opinion on whether they find it difficult to find organic products on the market.

The derived conclusions indicate that, in order to improve the organic food market, certain measures should be taken. Among other things, it is necessary to ensure that organic food is permanently available to consumers in all sales facilities. At the same time, it is necessary to take certain measures in order to lower the prices of organic food and raise the level of awareness and knowledge of consumers about organic food (quality, importance, labelling, etc.). It is also necessary to influence the reduction, or if possible, the elimination of any doubts about the correctness of organic food producers. The results of this research can be helpful in making business decisions for all interested parties involved in the supply chain of food products, especially of organic origin.

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### **Conflict of interests**

The authors declare no conflict of interest.

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