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# THE IMPACT OF FOOD AND WINE HARMONIZATION ON THE EXPERIENCE AND FUTURE INTENTIONS OF THE GUEST

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## ABSTRACT

In order to find out whether the guests like to pair food and wine, a research was conducted on the basis of experiences on harmonization of food and wine in Belgrade. The aim of the research was to determine whether sociodemographic characteristics influence the factors of gastro-oenological offer. In order to contribute to the development of catering facilities and their offerings, one of the main research factors was the factor of future intention to revisit and verbally promote the restaurant. A structured field survey questionnaire was conducted on a sample of 226 guests of catering facilities on the territory of Belgrade. The generated data was processed by the SPSS software package, including MANOVA analyzes and descriptive statistics. The obtained results show that sociodemographic characteristics influence the selection of gastro-oenological offer and experience related to the harmonization of food and wine and future intentions.

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## Introduction

The interest in food and wine dates from the 18th century, and recent raising interest in their harmonization increases the demand for improving the offer in hospitality facilities

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(Lecat, Chapuis, 2017). Wine tourism provides an unforgettable experience for every visitor to a destination (Brochado et al., 2021). Gastronomy has become very popular in the tourism industry (Santich, 2004), while in our country its importance has been rising recently. The absolute rules for pairing wine and food are not defined, therefore the recommendations of gastronomes are considered as a very important segment (Lecat, Chapuis, 2017). Recommendations for pairing food and wine guarantee quality and success, both in the catering facility and in retail (Paulsen et al., 2014). The main focus should be on the choice of wine and the preparation of various gastronomic specialties, and one of the principle rules of pairing is to use exclusively the same wine for food preparation and consumption (Mačević, Todorović, 2005).

Wine is an alcoholic beverage produced by the fermentation of grapes, the fruit of the vine plant (lat. *Vitis Vinifera*), but it can also be obtained from other fruits (sometimes from cereals). It represents one of the most popular alcoholic beverages in the world, and it is also seen as one of the most important ingredients in European and all Mediterranean cuisines (Beckett, Lingwood, 2005).

Gastro-oenology deals with the harmonization of food and wine in hospitality facilities, and is integrated so that the harmony and elemental pairing of food and wine are adequate. The biggest focus in the field of gastronomy is on the specification of wine and its presentation to the guest, i.e. quality presentation, which will provide the guest with an incentive to choose a gastronomic product and supplement their own choice with appropriate wine (Beckett, Lingwood, 2005). Janković et al. (2021) point out that restaurants and other catering facilities should be adapted to the wishes of consumers.

The paper aims to determine whether the socio-demographic characteristics such as gender, marital status, age, education and occupation affect both gastronomic offerings and experience in food and wine harmonization and their future intentions. The main research questions are:

Q1: Does the gender of the respondents influence the factors of the gastro-oenological offer of Belgrade?

Q2: Does the age of the respondents affect the factors of Belgrade's gastronomic offer?

Q3: Does the level of education affect the factors of gastro-oenological offer in Belgrade?

Q4: Does the marital status of the respondents affect the factors of Belgrade's gastronomic offer?

Q5: Does the occupation of the respondents influence the factors of Belgrade's gastro-oenological offer?

Based on the research questions, the basic hypothesis of the paper is:

H: Socio-demographic characteristics affect the choice of gastro-oenologic offer and experience regarding the harmonization of food and wine and their future intentions.

## Pairing of food and wine

Pairing of food and wine is an extremely complex process, and studies that have dealt with this topic have proven that there are disagreements between experts and lay examiners. Namely, experts claim that not everyone can be a person who understands the structure and specification of food and wine, but that there are certain trained and qualified people who deal with this for many years (Bastian et al., 2009). The combination of food and wine can be approached from several different angles, which makes this process even more complex and important to learn (Harrington, 2005). Harmonization also depends on the goals or in other words why individuals decide to visit one catering facility. Individuals come to catering establishments for work, some do it for fun and enjoyment, so the threshold of harmonization is different. There are studies that revealed that there is a difference between enjoying and harmonizing food and wine (Meillon et al., 2010). Therefore, the proposal to link wine to food could reduce the financial and social risks associated with ordering wine. On this basis, it is assumed that the proposal to pair wine with food is a direct sale in restaurants (Wansink et al., 2006). People have been enjoying and experimenting with food and wine combinations for years, and research has shown that consuming wine can increase guest satisfaction in a restaurant and thus contributes to coming back to the same restaurant (Bastian et al., 2010). Popovic et al., (2020) points out that the agri-food sector in the countries of the Western Balkans deserves special attention due to coronavirus pandemic based on the conjunction that the agri-food sector is in big trouble.

Experiences related to consumption significantly affect the guest's experience of a destination and loyalty tourists who want to experience the gastroeniological experience (Kustos et al., 2021).

Increasing consumer interest in pairing food and wine suggests that the booming desire to consume food and wine. Empirical research has also been conducted on this topic, with the aim of researching which combinations of food and wine are the best and why. Also, there isn't much information about the preferences of individuals with limited knowledge of pairing food and wine. This knowledge is crucial and that is why relevant industries must be better educated in a way that is both consumer-friendly and profitable for the industry. Studies such as these largely contribute to future research ideas and suggestions on the topic of pairing of food and wine. Each person can recommend food and wine and choose the appropriate combination, and since individuals with more experience in pairing food and wine have assessed that some combinations have better profitability for the restaurant and other catering facilities, they decide to visit the restaurant again and pair food and wine (Koone et al., 2014).

Oenology and gastronomy are closely related, because without gastronomic passion there is no real love for wine. Wine can be tasted and evaluated beyond meals, but it is indisputable that wine and food are complementary. The pairing of food and wine is successful only if both gain quality in it. Wine is properly consumed right after first swallowed bite of food, where that sip of wine should complete its taste. This way of

consuming wine really requires knowledge of stacking wine and food, which is very important. There is no factor such as 'personal taste' except in the case of delicious aromas, which are important, but not the most important factor in the arrangement of food and wine (Šijački, 2004).

In order to get acquainted with the rules by which food and wine are paired, it is first necessary to clarify what can be felt in the mouth, and what is most important for matching wine with food, because no matter how food is prepared, certain tastes always come to the front side. There are six key tastes of food: salty, sour, bitter, spicy, smoked and sweet, i.e. two ways of pairing: pairing food of the same or opposite taste (Ninković, 2007).

### **Influence of socio-demographic factors on food consumption**

The development depends on the integrated guests' feedback which led to many changes made by entrepreneurs as well as organizations in recent years. Over time, it has been suggested that feedback should be obtained in order to be able to possess insights from your guests, especially online where the perfect example would be comments on the map. Tourism is one of the most important sources of income and a significant factor of economic stability, because it contributes to the increase and inflow of new jobs (Dašić et al., 2020).

Socio-demographic factors typically include indicators such as gender, age, marital status, level of education, occupation, and household income to maintain the socioeconomic and demographic status of individuals. Although closely related to cultural background, socio-demographic factors allow the study of socio-economic and demographic variables within the cultural determinants of food consumption (Pizam, Sussmann, 1995). Research suggests that tourist food consumption may be heavily influenced by socio-demographic factors: research results have found that guest age is negatively correlated with the number and scope of their culinary research (Tse, Crotts, 2005). This suggests that older guests can consume a shortlist of available food and wine (Kim et al., 2009). Besides this, identified gender, age, and education are shown as three sociological-demographic variables that affect food and wine consumption. Specifically, it was concluded that female respondents are more interested in harmonization than male respondents. Older respondents and respondents with a higher level of education are more concerned about health, and have a stronger desire to understand and experience a foreign culture through harmonization. In research, conducted up to now, the results suggest that women are more likely to engage in food or wine-related activities than men are (Ignatov, Smith, 2006). Women are more price sensitive than men and at the same time more willing to try unknown or unusual fruits and vegetables (Mitchell, Hall, 2004).

Income is directly related to the status and the occupation. The results of a Canadian study showed that guests who have professional and expert occupations, participate more in wine and gastronomic tourism than other employees. Guests, who are involved in food and wine activities, compared to those who are only interested in food or only wine, had a higher percentage of retirees (Ignatov, Smith, 2006).

## Food and beverage consumption

Tourists' interest in food and wine has progressed significantly over the years, with more and more people who wants to have a real experience while consuming (Rachão et al., 2021).

Food consumption is the most important form of consumption, but it is largely neglected in the hospitality and tourism's literature. So far, no research on this topic has been conducted in the Republic of Serbia, but only research that includes examining the quality of hotel services (Blešić et al., 2014). The position of the wine on the list or menu also affects the sale of wine. Food and drinks are sometimes presented in two different menus or one after the other (Terrier, Jaquinet, 2016).

In order to provide the right level of comfort in restaurants, it is necessary to ensure that the conversation at one table can be held in a mutually understandable way, all in order to avoid background noise from conversations at neighbouring tables (as a rule, the level of exposure in ambience in such rooms, has proven that noise from external sources is negligible). When you host several groups of customers at the same time, restaurants are affected by a very unpleasant background noise, which forces each speaker to raise their voice in an effort to hear people sharing the same table, and thus intimacy is guaranteed to the guest. Harmonization requires peace and harmony at the table for the guest to enjoy (Leccese et al., 2015). The Internet is currently considered the best tool that can also help build the image of both restaurants and the harmonization of drinks and food culture (Ab Karim, Chi, 2010). Wine consumption and culture have been established over many centuries and date back to ancient times, when wine spread from its homelands to different parts of the world through trade and wars (Tang et al., 2015).

The price of food is quite problematic. The price factor is important in decision making process when it comes to the selection of wine and food, whether buying local or foreign wine. Considering that today people have less and less time to prepare food, convenience - how to use - is more important than it has ever been before. The choice of food and wine depends on both availability and family habits. The choice of dishes is greatly influenced by the way in which they are prepared and marketed (Cohen, Avieli, 2004).

Food and wine consumption refer to the amount consumed, and is usually stated in terms of mass, energy value (kJ) or total amount of macro and micro nutrients in food and wine research (Logue, 2014). Previous research has shown that liking, preference, choice, and consumption are not adequate equivalents in terms of behaviour in food and wine consumption (Logue, 2014). In the literature, their relationship is described as follows: "taste is the main determinant of preference, and preference is the main determinant of consumption, but many other variables intervene (Rozin, 2006).

## Materials and methods

During the period from December 2020 to July 2021 a field survey was conducted using a modified structured survey questionnaire (Jalis et al., 2009a; Jalis et al., 2009b)

on a total of 226 guests of catering facilities on the territory of Belgrade selected using the Trip-Advisor *app*. The structured questionnaire contained two parts, where the first part included a demographic description of the respondents, while the second part contained questions related to the attitudes of the guests toward gastro-oenological offer and its impact on the guest's experience and future intentions. The questions were asked and evaluated on the basis of a five-point Likert scale (with grades from 1- strongly disagree, 2 – disagree, 3- undecided, 4 – agree, 5- strongly agree). The obtained results were statistically processed using the software package SPSS 22 (SPSS, 2013) which included analysis MANOVA and descriptive statistics.

## Results and Discussions

In order to examine the differences in sociodemographic characteristics and habits in relation to the factors of gastro-oenological supply, the one - way MANOVA method (one way between MANOVA groups) was used. In all models, the dependent variables are factors of gastro-oenological offer: consumption of food and beverages, consumption of food and wine in restaurants in Belgrade, experiences related to the culture of food and wine harmonization, attractiveness of gastronomic offer, overall satisfaction and future intention of the guest to visit again or orally promote the restaurant. Dependent variables are operationalized as a sum of questions on subscales, which refer to a certain factor of gastro-oenological offer.

### Differences in the gender of the respondents in relation to the factors of gastro-oenological offer

In terms of demographic indicators, it can be stated that in the sample, despite a slightly higher share of women among respondents compared to men (55,50% vs. 44,50%), respondents of both sexes were evenly represented. In Table 1 measures of central tendency and variability, by factors of gastro-oenological supply for males and females are presented.

**Table 1.** Descriptive statistics of gastroenterological supply factors by sex of respondents

		M	SD	N
<b>Consumption of food and beverages</b>	Female	23,4720	5,70735	125
	Male	24,7300	5,51189	101
<b>Consumption of food and wine in restaurants in Belgrade</b>	Female	30,0560	7,82604	125
	Male	30,8300	7,46447	101
<b>Experiences related to the culture of food and wine harmonization</b>	Female	35,1520	7,85663	125
	Male	36,1100	8,41103	101
<b>Attractiveness of gastro-oenological offer</b>	Female	14,4080	3,47130	125
	Male	14,1900	3,51245	101
<b>Total satisfaction</b>	Female	11,3280	2,22078	125
	Male	10,9900	2,43499	101
<b>The future intention of the guest to revisit or verbally promote the restaurant</b>	Female	7,1200	1,68772	125
	Male	7,2600	1,52832	101

Note: N—number of respondents, M—arithmetic mean, SD—standard deviation,  
Source: Authors' research

It can be seen that females and males are uniformed in the assessment of gastroenterological supply factors. On average, males are more likely to consume food and drink ( $M = 24.73$ ;  $SD = 5.51$ ), consume food and wine in restaurants ( $M = 30.83$ ;  $SD = 7.46$ ), have more experience in relation to the culture of food and wine harmonization ( $M = 36.11$ ;  $SD = 8.41$ ) and have a greater future intention to revisit or verbally promote the restaurant ( $M = 7.26$ ;  $SD = 1.53$ ). Females, on average, have higher scores on the subscales of attractiveness of gastronomic offer ( $M = 14.41$ ;  $SD = 3.47$ ) and overall satisfaction ( $M = 11.33$ ;  $SD = 2.22$ ).

Based on the obtained results, it can be stated that the factor - food and beverage consumption as an option to visit a restaurant was more determined by male respondents, and somewhat less by female respondents. By looking at the table, the factor of food and beverage consumption as an option to visit a restaurant was more determined by male respondents, and less by female respondents. Factor of experience related to culture and harmonization of food and wine, a larger number of male respondents are keen to it than female respondents. The overall satisfaction as the overall impression of the guest was more determined by the female person, and less by the male person. The future intentions of the guest to revisit or orally promote the restaurant were more determined by the males and less by the females.

### Differences in the age of the respondents in relation to the factors of gastro-oenological offer

In terms of age, the survey predominantly (73,1%) included respondents of younger age categories (up to 30 years), while the share of those older than 51 years is 4,4%. Table 2 shows the measures of central tendency and variability, by factors of gastro-oenological supply in relation to the age of the respondents.

**Table 2.** Descriptive statistics of gastro-oenological supply factors in relation to the age of the respondents.

		<b>M</b>	<b>SD</b>	<b>N</b>
<b>Consumption of food and beverages</b>	31-40	23,7500	5,76468	28
	41-50	25,1818	4,58399	23
	51 and more	26,1000	6,26188	10
	18-30	23,8000	5,71711	165
<b>Consumption of food and wine in restaurants in Belgrade</b>	31-40	28,0357	7,88098	28
	41-50	33,9091	6,54588	23
	51 and more	31,9000	5,13052	10
	18-30	30,2424	7,76024	165
<b>Experiences related to the culture of food and wine harmonization</b>	31-40	33,6429	7,07743	28
	41-50	36,9545	6,83463	23
	51 and more	34,9000	9,44516	10
	18-30	35,7636	8,34317	165

		M	SD	N
<b>Attractiveness of gastro-oenological offer</b>	31-40	13,8214	3,33393	28
	41-50	14,9545	2,08115	23
	51 and more	13,9000	3,03498	10
	18-30	14,3333	3,68473	165
<b>Total satisfaction</b>	31-40	11,0357	2,61735	28
	41-50	11,0909	2,56179	23
	51 and more	11,3000	2,66875	10
	18-30	11,2061	2,23197	165
<b>The future intention of the guest to revisit or verbally promote the restaurant</b>	31-40	7,2857	1,60686	28
	41-50	7,2273	1,41192	23
	51 and more	6,9000	1,28668	10
	18-30	7,1758	1,67096	165

Note: N—number of respondents, M—arithmetic mean, SD—standard deviation,  
*Source:* Authors' research

Based on Table 2 it is found that the respondents evaluate food consumption in the following way: Middle-aged respondents assign lower rates to the factors of food and beverage consumption ( $M = 23.75$ ;  $SD = 5.76$ ) and food and wine consumption in catering facilities in Belgrade ( $M = 28.04$ ;  $SD = 7.88$ ). The factor of future intention to revisit or verbally promote the restaurant is rated the lowest by the oldest respondents ( $M = 6.90$ ;  $SD = 1.29$ ). Factors, experience related to the culture of food and wine harmonization ( $M = 33.64$ ;  $SD = 7.08$ ), attractiveness of the gastro-oenological offer ( $M = 13.82$ ;  $SD = 3.33$ ) and overall satisfaction ( $M = 11.06$ ;  $SD = 2.61$ ) is rated the lowest by middle-aged respondents (from 31 to 40 years). The most satisfied are the respondents from 41 to 50 years of age. By analyzing the respondents, most of the survey was filled out by respondents aged 31 to 40 years. On average, it is considered that these are business people, who are employed, and that their assessment is extremely important for the future intentions and promotion of the restaurant.

### **Differences in the education of the respondents in relation to the factors of gastro-oenological offer**

The obtained data indicate that a negligible number of respondents with completed primary school (3,1%) participated in the survey, the most represented were respondents with completed secondary school (33,5%) and vocational school (35,7%), and a significant share of respondents with completed academic studies (27,8%). Table 3 shows the measures of the central tendency and variability according to the factors of gastro oenological offer in relation to the education of the respondents.



**Table 3.** Descriptive statistics of gastro oenological supply factors in relation to education

		<b>M</b>	<b>SD</b>	<b>N</b>
<b>Consumption of food and beverages</b>	Vocational School	23,6790	5,68513	81
	Doctoral Studies - PhD	30,5000	3,10913	4
	Master or Master's Degree	21,6667	6,65081	21
	Primary School	27,2857	5,67786	7
	High School	24,9054	5,08602	74
	Faculty (Bachelor's')	23,1053	5,44153	38
<b>Consumption of food and wine in restaurants in Belgrade</b>	Vocational School	29,2593	7,01209	81
	Doctoral Studies - PhD	37,5000	8,96289	4
	Master or Master's Degree	28,4286	7,51380	21
	Primary School	41,2857	7,56559	7
	High School	31,7568	7,37788	74
	Faculty (Bachelor's')	28,5263	7,41706	38
<b>Experiences related to the culture of food and wine harmonization</b>	Vocational School	34,6667	7,91202	81
	Doctoral Studies - PhD	40,2500	11,87083	4
	Master or Master's Degree	31,6667	7,68332	21
	Primary School	45,4286	7,27684	7
	High School	37,1757	7,63438	74
	Faculty (Bachelor's')	34,2632	7,56122	38
<b>Attractiveness of gastro-oenological offer</b>	Vocational School	13,9506	3,53518	81
	Doctoral Studies - PhD	16,7500	1,70783	4
	Master or Master's Degree	12,5238	3,35588	21
	Primary School	17,8571	2,11570	7
	High School	14,9730	3,40013	74
	Faculty (Bachelors')	13,8684	3,22298	38
<b>Total satisfaction</b>	Vocational School	11,1852	2,08633	81
	Doctoral Studies - PhD	13,0000	1,15470	4
	Master or Master's Degree	11,0000	2,02485	21
	Primary School	10,7143	3,59232	7
	High School	11,5135	2,50612	74
	Faculty (Bachelor's')	10,5000	2,28686	38
<b>The future intention of the guest to revisit or verbally promote the restaurant</b>	Vocational School	7,2346	1,57537	81
	Doctoral Studies - PhD	8,5000	,57735	4
	Master or Master's Degree	6,8095	1,28915	21
	Primary School	8,1429	8,9974	7
	High School	7,2703	1,69849	74
	Faculty (Bachelor's')	6,7895	1,75773	38

Note: N—number of respondents, M—arithmetic mean, SD—standard deviation,  
*Source:* Authors' research

According to results in Table 3 it can be stated that the factors of future intention to visit or orally promote the restaurant are well assessed by the respondents, which is of great importance for restaurants ( $M = 8.50$ ;  $SD = 0.58$ ). Factors - total satisfaction ( $M = 13.00$ ;  $SD = 1.15$ ) and consumption of food and beverages ( $M = 30.50$ ;  $SD =$

3.11) are mostly assessed by doctors of science, while the attractiveness of the gastro-oenological offer is assessed by a good grade ( $M = 16,75$ ;  $SD = 1.70$ ) which has a very good effect on the image of the restaurant. The experience factor related to the culture of food and wine harmonization is rated slightly lower ( $M = 14.25$ ;  $SD = 11.87$ ). When it comes to the factor - food and wine consumption in catering facilities in Belgrade, it can be stated that the respondents rate it extremely high ( $M = 37.50$ ;  $SD = 8.96$ ), while the factor-food and beverage consumption is rated solidly ( $M = 30.50$ ;  $SD = 3.10$ ). Based on the obtained results, it can be stated that the respondents best assess the factor of food and wine consumption in catering facilities in Belgrade.

Consumption of food and wine in catering facilities in Belgrade ( $M = 41.29$ ;  $SD = 7.57$ ) and experiences related to the culture of harmonization of food and wine ( $M = 45.43$ ;  $SD = 7.27$ ), attractiveness of gastronomic offer ( $M = 17.85$ ,  $SD = 2.12$ ) are mostly rated by respondents with primary education. Factors food and beverage consumption ( $M = 27.28$ ;  $SD = 5.67$ ), overall satisfaction ( $M = 10.71$ ;  $SD = 3.59$ ), future intention to revisit or promote the restaurant ( $M = 8.14$ ;  $SD = 8.99$ ) are the factors that are most assessed by respondents with doctoral education.

Respondents with a university degree rate well the factor - food and beverage consumption ( $M = 23.10$ ;  $SD = 5.44$ ), food and wine consumption in catering facilities in Belgrade ( $M = 28.52$ ;  $SD = 7.41$ ), while experiences in relation to the culture of food and wine harmonization ( $M = 34.26$ ;  $SD = 7.56$ ) are rated as one of the best factors. Factors assess the attractiveness of the gastro-oenological offer ( $M = 13.87$ ;  $SD = 3.22$ ) solidly; overall satisfaction ( $M = 16.50$ ;  $SD = 2.28$ ) is evaluated worse than the previous factors and the factor future intention of the guest to revisit or verbally promote the restaurant ( $M = 6.78$ ;  $SD = 1.75$ ) is rated very poorly by the respondents.

Respondents with secondary education rate food and beverage consumption well ( $M = 24.90$ ;  $SD = 5.08$ ), and all of these results can contribute to encouraging restaurants for future purposes. Respondents rate the factor of food and wine consumption in catering facilities in Belgrade with an average grade ( $M = 31.75$ ;  $SD = 7.37$ ), experiences related to the culture of food and wine harmonization with a very high grade ( $M = 37.17$ ;  $SD = 7.63$ ), and based on these results it can be concluded that most respondents answered that the reason for visiting the restaurant is related to the experience with culture and harmonization of food and wine. The factor of attractiveness of the gastro-oenological offer as a factor of restaurant visit is rated lower ( $M = 14.97$ ;  $SD = 3.40$ ), overall satisfaction ( $M = 11.51$ ;  $SD = 2.50$ ) is rated significantly lower by the respondents. Future intention of the guest to revisit or verbally promote a restaurant which is not good for restaurant policy ( $M = 7.27$ ;  $SD = 1.69$ ) is rated by respondents as extremely low. Many existing studies have shown future intentions to visit the festival among visitors tasting food and wine and the overall experience of local potential hundred certainly contributes to the local population (Masella et al., 2021).

Respondents with master studies evaluate the factor of food and beverage consumption with a solid grade ( $M = 21.66$ ;  $SD = 6.65$ ), the factor of food and wine consumption in

catering facilities in Belgrade ( $M = 28.42$ ;  $SD = 7.51$ ) with a high grade, experiences related to the culture of harmonization of food and wine ( $M = 31.66$ ;  $SD = 7.63$ ) are rated extremely high, which is good for the further development of the restaurant. The attractiveness factor of the gastro-oenological offer ( $M = 12.52$ ;  $SD = 3.35$ ) was not assessed well by the respondents, and based on that it can be concluded that the offer was not completed. Overall satisfaction ( $M = 11$ ;  $SD = 2.02$ ) is not well rated, which means that restaurants must work harder on the overall impression of the guest, while the factor is the future intention of the guest to revisit or verbally promote the restaurant ( $M = 6.80$ ;  $SD = 1.28$ ) rated very poorly.

Respondents with higher education rate food and beverage consumption well ( $M = 23.67$ ;  $SD = 5.68$ ), factors of food and wine consumption in catering facilities in Belgrade ( $M = 29.25$ ;  $SD = 7.01$ ) and experiences in in relation to the culture of harmonization of food and wine, they rate extremely well ( $M = 34.66$ ;  $SD = 7.91$ ), the attractiveness of the gastro-oenological offer is assessed by the respondents with a worse grade ( $M = 13.95$ ;  $SD = 3.53$ ), overall satisfaction ( $M = 11.18$ ;  $SD = 2.08$ ) and the factor future intention of the guest to revisit or verbally promote the restaurant ( $M = 7.23$ ;  $SD = 1.57$ ) was assessed by the respondents as extremely bad. Based on this analysis, it can be concluded that to a large extent the visit to the restaurant and the choice to consume and harmonize food and wine depends on the level of education.

### Differences on marital status of the respondents in relation to the factors of gastro-oenological offer

In terms of demographic indicators, it can be stated that sample has a similar share (about 30%) of single, married and respondents in a relationship. In Table 4 measures of central tendency and variability, according to the factors of gastro-oenological offer in relation to the marital status of the respondents are presented.

**Table 4.** Descriptive statistics of gastro-oenological quality factors by marital status of respondents

		M	SD	N
<b>Consumption of food and beverages</b>	Living with a partner	24,8889	5,41120	18
	Married	24,2459	6,37091	61
	Single	23,6944	5,68328	72
	In a relationship	23,9730	5,08011	74
<b>Consumption of food and wine in restaurants in Belgrade</b>	Living with a partner	32,6667	7,12081	18
	Married	30,7869	8,26461	61
	Single	30,0694	7,73200	72
	In a relationship	29,8514	7,22189	74
<b>Experiences related to the culture of food and wine harmonization</b>	Living with a partner	36,3333	7,05441	18
	Married	35,6721	9,22627	61
	Single	34,7083	8,45608	72
	In a relationship	36,1622	7,01081	74

		M	SD	N
<b>Attractiveness of gastro-enological offer</b>	Living with a partner	15,4444	3,32941	18
	Married	14,3443	3,65552	61
	Single	13,9444	3,59925	72
	In a relationship	14,3649	3,25860	74
<b>Total satisfaction</b>	Living with a partner	12,3889	1,75361	18
	Married	10,9016	2,61218	61
	Single	11,0972	2,38044	72
	In a relationship	11,1892	2,05856	74
<b>The future intention of the guest to revisit or verbally promote the restaurant</b>	Living with a partner	7,5556	1,38148	18
	Married	7,1475	1,60038	61
	Single	7,0278	1,75204	72
	In a relationship	7,2703	1,55535	74

Note: N—number of respondents, M—arithmetic mean, SD—standard deviation,  
*Source:* Authors' research

In Table 4, it can be noticed that, on average, respondents who are in a relationship, give higher marks to the factors of the quality of the gastro-enological offer. The highest assessment of food and beverage consumption is given by respondents who are In a relationship (M = 24.89; SD = 5.41), and the lowest by singles (M = 23.69; SD = 5.68), consumption of food and wine in catering facilities in Belgrade are mostly practiced by respondents who are In a relationship (M = 32.67; SD = 7.12), and the least by respondents who are related (M = 29.85; SD = 7.22), experience related to by harmonizing food and wine, respondents who are In a relationship have the most (M = 36.33; SD = 7.05), and singles have the least (M = 34.71; SD = 8.46). The situation is the same with the assessment of the attractiveness of the gastro enological offer. It is rated the highest by respondents who are in an extramarital union (M = 15.44; SD = 3.33), and the lowest by singles (M = 13.94; SD = 3.60). The experience of total satisfaction is mostly experienced by respondents who are in a relationship (M = 12.39; SD = 1.75), and the least married or married respondents (M = 10.90; SD = 2.61). The future intention to revisit or verbally promote the restaurant is highest among respondents who are out of wedlock (M = 7.55; SD = 1.38), and lowest with respondents who are single (M = 7.03; SD = 1.75).

#### **Differences in the occupation of the respondents in relation to the factors of gastro-enological offer**

In terms of occupation, the survey predominantly (60,4%) included employed respondents, while the share of those unemployed was 14,5% The significant share of 23,3% of respondents were students. Table 5 shows the measures of central tendency and variability by factors of gastro-enological supply in relation to the occupation of the respondents.

**Table 5.** Descriptive statistics of quality factors of gastro-enological offer in relation to occupation

		<b>M</b>	<b>SD</b>	<b>N</b>
<b>Consumption of food and beverages</b>	Employed	24,7407	5,45123	135
	Unemployed	22,1212	5,33712	33
	Student	23,1132	6,07853	53
<b>Consumption of food and wine in restaurants in Belgrade</b>	Employed	30,8889	7,27874	135
	Unemployed	29,9394	6,83255	33
	Student	28,9623	8,78802	53
<b>Experiences related to the culture of food and wine harmonization</b>	Employed	35,4519	7,85001	135
	Unemployed	35,4848	7,04947	33
	Student	35,2453	8,92685	53
<b>Attractiveness of gastro-oenological offer</b>	Employed	14,4519	3,21080	135
	Unemployed	14,1212	3,96672	33
	Student	13,9623	3,91723	53
<b>Total satisfaction</b>	Employed	11,3778	2,21550	135
	Unemployed	11,2121	2,50945	33
	Student	10,9057	2,33093	53
<b>The future intention of the guest to revisit or verbally promote the restaurant</b>	Employed	7,4296	1,57186	135
	Unemployed	7,3030	1,48923	33
	Student	6,5472	1,65908	53

Note: N—number of respondents, M—arithmetic mean, SD—standard deviation,  
*Source:* Authors' research

Based on the research, looking at Table 5 it can be stated that employees best assess the factor of food and beverage consumption ( $M = 24.74$ ;  $SD = 5.45$ ), factors of food and wine consumption in catering facilities in Belgrade ( $M = 30, 89$ ;  $SD = 7.28$ ), attractiveness of gastro-enological offer ( $M = 14.45$ ;  $SD = 3.21$ ), overall satisfaction ( $M = 11.38$ ;  $SD = 2.21$ ) and future intention to revisit or promote restaurant ( $M = 7.43$ ;  $SD = 1.57$ ) is most evaluated by employed respondents and experiences related to the culture of food and wine harmonization are mostly evaluated by unemployed respondents ( $M = 35.48$ ;  $SD = 7.05$ ).

The unemployed rate slightly worse factors in the consumption of food and beverages ( $M = 22.12$ ;  $SD = 5.33$ ), the consumption of food and wine in catering facilities in Belgrade is assessed very well by respondents ( $M = 29.93$ ;  $SD = 7.04$ ), Experiences related to culture and food and wine harmonization are rated by the unemployed as very high ( $M = 35.48$ ;  $SD = 7.04$ ), the attractiveness of the gastronomic offer is assessed by the respondents as slightly lower ( $M = 14.12$ ;  $SD = 3, 96$ ), the overall satisfaction ( $M = 11.23$ ;  $SD = 2.50$ ) and the factor of future intention to visit the restaurant again and promote it orally ( $M = 7.30$ ;  $SD = 1.48$ ) were assessed by the respondents as extremely bad.

Based on the research conducted by students, the following results were obtained: the factor of food and beverage consumption was evaluated with a solid grade, which is a good sign for future visits to restaurants ( $M = 23.11$ ;  $SD = 6.07$ ), consumption of food

and wine in restaurants in Belgrade ( $M = 28.96$ ;  $SD = 8.78$ ) rated good, experiences related to culture and harmonization of food and wine ( $M = 35.24$ ;  $SD = 8.92$ ) respondents rated very well, the attractiveness of gastro-oenological offers ( $M = 13.96$ ;  $SD = 3.91$ ), overall satisfaction ( $M = 6.90$ ;  $SD = 2.33$ ) and future intentions to visit the restaurant again and promote it orally ( $M = 6.54$ ;  $SD = 1.65$ ) respondents did not rate well, based on which it can be concluded that respondents do not intend to visit or promote the restaurant in the future. The research shows that the respondents, who are employed, are very frequent guests of the restaurant and this proved to be a good indicator for the long-term operation of the restaurant and regular guests.

### Conclusion

The raising interest in harmonization of food and wine increases the demand for improving the offer in hospitality facilities. In order to find out whether sociodemographic characteristics influence the factors of gastro-oenological offer a structured field survey questionnaire was conducted on a sample of 226 guests of catering facilities on the territory of Belgrade. After the analysis of the obtained data, the following can be concluded, which gives the answer to the set of research questions:

- Analyzing the impact of gender differences in relation to gastro-oenological supply factors, it can be concluded that males emphasize a higher level of agreement in almost all factors compared to females, except for factors on overall satisfaction where females stand out with a higher degree of agreement in relation to male respondents.
- Differences in marital status are very diverse. People out of wedlock value food and beverage consumption, food and wine consumption in restaurants, experience in the culture of food and wine harmonization, attractiveness of gastronomic offer and overall satisfaction, while the factors of future intentions of the guest to visit or promote orally restaurant respondents have the highest degree of agreement.
- Taking into account differences based on the age of the respondents, the highest degree of agreement occurs in the group of respondents aged 31-40, while the lowest level of agreement in all factors has the group of respondents aged 18-30.
- The level of education is crucial for expressing the opinion. according to the results the respondents with completed doctoral studies express the highest degree of agreement in all factors. The lowest degree of agreement with the factors is diverse. Respondents with a master's or master's degree express the lowest degree of agreement in the factors of food and beverage consumption, food and wine consumption in Belgrade's catering facilities, experience in the culture of food and wine harmonization and the attractiveness of gastronomic offer. While the lowest degree of agreement with other factors such as overall satisfaction and future intentions to revisit or verbally promote the restaurant occurs with respondents with a university degree or Bachelor's'.
- Considering differences in occupation of respondents, it can be concluded that respondents who are employed evaluate all factors more than the factor of experience

related to the culture of food and wine harmonization, where the highest level of agreement have unemployed. When we talk about the lowest degree of agreement, the lowest level of agreement is very diverse. The unemployed point out the lowest level of agreement with the factors of food and beverage consumption, while students express a lower level of agreement with other factors.

Based on the conducted research and the basic hypothesis, it is confirmed that the sociodemographic characteristics of guests of catering facilities affect the choice of gastro-oenolic offer and experience regarding the harmonization of food and wine and their future intentions.

### Conflict of interests

The authors declare no conflict of interest.

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