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The impact of the quality of gastronomic services on tourist satisfaction in agritourism farms in Eastern Serbia

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Abstract

Purpose – The study aimed to analyze the quality of gastronomic services in the agrarian regions of Eastern Serbia, focusing on the experiences of tourists visiting these destinations. The research was motivated by the increasing importance of gastronomic services in contemporary studies, particularly in rural areas like Eastern Serbia, known for its unique offerings in agritourism. **Methodology** – The research was conducted in 2024 on a sample of 189 respondents across 14 agritourism farms in Eastern Serbia. Data were analyzed using SPSS software, version 26.00, and multiple regression analysis was employed to identify the key predictors influencing overall service quality. **Findings** – The results revealed a statistically significant impact of the quality of gastronomic services on tourist satisfaction. The analysis identified key predictors of the quality of gastronomic services that significantly contribute to the overall tourist experience, highlighting the importance of high-quality service in enhancing visitor satisfaction. **Implications** – The study's findings contribute to the theoretical understanding of service quality in rural tourism and provide practical insights for agritourism operators in Eastern Serbia. By improving the quality of their gastronomic offerings, these operators can enhance tourist satisfaction and potentially increase visitor numbers.

Keywords: gastronomic service, tourism, quality, agritourism farms

JEL classification: L83, Q13, Z32

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Uticaj kvaliteta gastronomskih usluga na zadovoljstvo turista u agroturističkim gazdinstvima Istočne Srbije

Sažetak

Svrha – Studija je imala za cilj da analizira kvalitet gastronomskih usluga u agrarnim regionima Istočne Srbije, fokusirajući se na iskustva turista koji posećuju ova odredišta. Istraživanje je motivisano sve većim značajem gastronomskih usluga u savremenim studijama, posebno u ruralnim područjima poput Istočne Srbije, poznate po svojim jedinstvenim ponudama u oblasti agroturizma. **Metodologija** – Istraživanje je sprovedeno 2024. godine na uzorku od 189 ispitanika sa 14 agroturističkih gazdinstava u Istočnoj Srbiji. Podaci su analizirani korišćenjem SPSS softvera, verzije 26.00, a primenjena je analiza višestruke regresije kako bi se identifikovali ključni prediktori koji utiču na ukupni kvalitet usluge. **Rezultati** – Rezultati su pokazali statistički značajan uticaj kvaliteta gastronomskih usluga na zadovoljstvo turista. Analiza je identifikovala ključne prediktoze kvaliteta gastronomskih usluga koji značajno doprinose ukupnom iskustvu turista, ističući važnost visokokvalitetne usluge u povećanju zadovoljstva posetilaca. **Implikacije** – Nalazi studije doprinose teorijskom razumevanju kvaliteta usluge u ruralnom turizmu i pružaju praktične uvide za operatere u agroturizmu u Istočnoj Srbiji. Poboljšanjem kvaliteta svojih gastronomskih ponuda, ovi operateri mogu povećati zadovoljstvo turista i potencijalno povećati broj posetilaca.

Ključne reči: gastronomska usluga, turistička ponuda, kvalitet, agroturistička gazdinstva

JEL klasifikacija: L83, Q13, Z32

1. Introduction

Gastronomic service plays a significant role in the development of the tourism offer, but there is also a reciprocal influence, where tourism generally contributes to the development of gastronomy (Andersson et al., 2017). Gastronomy is an essential need, as well as an activity, profession, and science, associated with the art of food preparation and serving (Aguilera, 2018). It is an inseparable part of everyday life, maintaining health and life satisfaction, and enabling products characteristic of a particular destination to be marketed in the food industry. The special importance of gastronomic service is reflected in its contribution to the national economy, as tourists leave significant financial resources in the tourist destinations they visit. Gastronomic service in agritourism destinations, in particular, has been gaining increasing importance in promotion and prominent positions in the tourism market over the last few decades, especially in developing countries like Serbia (Koufadakis & Manola, 2020; Vukolić et al., 2022). The development of gastronomic services in a particular tourist destination contributes to the enhancement of the overall tourism offer of that destination (Folgado-Fernández et al., 2017).

Agritourism includes a wide range of activities carried out on agritourism farms, extending beyond what is typically categorized as traditional or agricultural tourism. This form of tourism integrates two economic sectors – tourism and agriculture – which together create a distinct tourism offering, implemented within agricultural households or rural settings (Streifeneder, 2016). Eastern Serbia plays a significant role in terms of population and resources. Currently, 85% of Serbia's territory is classified as rural, with between 44% and 55% of the population residing in these areas, and it is estimated that rural regions contribute approximately 41% to the country's GDP (Erdeji et al., 2013). The rural economy of Eastern Serbia is heavily reliant on agriculture, with around 75% of the rural population engaged in

agricultural activities (Petrović et al., 2017). Despite numerous challenges and opportunities for enhancing competitiveness and sustainability, the agrarian economy of Eastern Serbia requires a balanced approach that incorporates agricultural production, other economic activities, environmental protection, and social development (Ristić, 2013). Several studies on agritourism and gastronomic services have expanded the notion that tourism plays a vital role in revitalizing and repurposing resources in agrarian regions (Palmi & Lezzi, 2020; Sachaleli, 2022). However, limited research has focused on evaluating the quality of gastronomic services in the agrarian areas of Eastern Serbia.

Most research in this area primarily examines how the gastronomic identity of a destination can be projected and promoted. Several studies highlight that gastronomic identity is shaped by environmental and cultural factors, which influence the characteristics, textures, and flavors of food and beverages (Harrington, 2005). In contrast, this paper seeks to assess the quality of gastronomic services from the tourists' perspective. Furthermore, multiple regression analysis was applied to evaluate the significance of various predictors in determining the quality of gastronomic services and their impact on overall tourist satisfaction. The results clearly indicate that specific predictors have a significant influence, leading to the rejection of the first hypothesis and acceptance of the second. The importance of this research lies in establishing the current quality standards of gastronomy in agrarian regions, particularly in agritourism settings. These findings provide a foundation for further, more detailed research and offer strategic insights for future development and corrective actions aimed at enhancing both gastronomic services and agritourism.

2. Literature review

Most research on this topic focuses on studying how gastronomic identity can be projected and promoted. Some studies also emphasize that the gastronomic identity of a destination is determined by the environment and cultural elements that influence the characteristics, textures, and flavors of food and drink (Harrington, 2005). In recent decades, agritourism has gained significance, particularly in the context of offering specific gastronomic services. Tourists whose primary motivation is food, specifically gastronomy, visit certain agrarian areas primarily to taste the food and drinks characteristic of that region (Sidali et al., 2011). Agritourism includes various food and drink offerings, tastings, visits to food producers, participation in food fairs and festivals, exhibitions of indigenous dishes and drinks, as well as various workshops (Streifender, 2016). In addition, several other services can be found on agritourism farms. Gastronomic service, in combination with the cultural development of the local population, confirms that it can be a primary motivation for visiting an agritourism destination (Vukolić et al., 2023).

Gastronomic service encompasses a wide array of expertise, extending beyond the realm of human nutrition to include the historical evolution of food culture within local communities. In order to achieve a cohesive representation of a country's tourism identity, the gastronomic service must be independently robust. It plays a pivotal role in comprehending the cultural fabric of a society (Rinaldi, 2017). For certain travelers, local cuisine holds significant appeal, influencing their choice of destination. Unlike other destination activities, tourists are often more willing to experiment with new and diverse flavors, although for some individuals, the unfamiliarity of local dishes may provoke a sense of discomfort (Santich, 2004).

Agritourism brings numerous benefits, including the preservation of the natural environment, protection of cultural heritage and traditions, and support for agritourism farms. Agritourism encourages the preservation of values that could be threatened in the future, while simultaneously offering an alternative way of life and work, promoting responsible and

sustainable behavior at tourist destinations (Streifeneder, 2016). Agritourism primarily relies on two basic sectors – agriculture and tourism (Phillip et al., 2010). According to some authors, the offering of national cuisine is a part of cultural tourism and heritage, development following natural conditions, the type of land, social customs, religion, and other factors, and reflects cultural norms, the struggle with nature, geographical location, historical influences, and tradition (Ancuța & Jucu, 2023; Bessiere, 1998; Hall et al., 2003).

Recent studies highlight agritourism as an important and expanding sector within the global tourism market. Agrarian destinations provide rich anthropogenic assets and offer an authentic traditional setting. Agritourism is deeply intertwined with cultural tourism, and their combination creates a distinctive experience for visitors (Streifeneder et al., 2023). Ethnographic elements, such as traditional houses, historic workshops, windmills, and farmsteads, are frequently repurposed as museums or exhibition spaces, further enhancing the tourism experience (Knapik & Król, 2023). The agritourism product emerges from the interaction between the agricultural environment, the local inhabitants, and the region's products and activities. The quality of the agritourism offering is contingent on the conservation of the natural landscape, cultural heritage, visitor demographics, and the destination accessibility (Popescu et al., 2023). Agritourism is defined as tourism occurring in rural settings that preserve the authentic features of the local environment and history. However, not all tourism in rural areas qualifies as agritourism, particularly if it does not support the rural economy or utilize local resources (Streifeneder et al., 2023; Widawski et al., 2023).

Although Eastern Serbia possesses significant natural wealth, its rural economy lacks sufficient diversification. Agrarian areas in Eastern Serbia have significant tourism potential, but that potential remains largely underutilized. The development of agritourism can contribute to increased employment and income, as well as the diversification of the local economy, relying on the urban population's need for rest in peaceful and natural environments. Agritourism is characterized by the aspiration to provide an authentic experience, including personal contact with the local population and the opportunity to participate in agritourism activities (Jurjević et al., 2023; Mijatović & Zavadžil, 2023).

Demand for agritourism includes activities such as outdoor recreation, engaging in sports such as horseback riding, hiking, fishing, or simply enjoying nature and cultural heritage, participating in agricultural and other activities on the agritourism farm (such as picking fruits and vegetables, preparing gastronomic products, etc.) (Prasiasa et al., 2023). Gastronomic service, as part of agritourism, cannot survive without modern technology and technical equipment that allows for better quality meals, reduced resource waste, adherence to standards, economical preparation, and flexibility in service (Muwani et al., 2024; Rinaldi, 2017). Traditional gastronomic service represents the authenticity of the people and their environment, combining history, culture, and education. With an adequate tourist offer, agritourism destinations can attract younger generations, who have the opportunity to learn about places of historical significance, culture, and the traditions of their ancestors (Muñiz-Martinez & Florek, 2023). Gastronomic service in Eastern Serbia, although recognized as a brand, is still not adequately positioned on the market. Despite the potential for developing an authentic cuisine, this part of Serbia has not fully utilized its gastronomic resources, indicating the need for better strategic planning and promotion of this segment of tourism (Obrovčić et al., 2023; Tominc, 2023).

Research highlights the importance of gastronomy as a key factor in attracting tourists and enhancing the tourist experience. Gastronomic service, based on authentic and traditional dishes, can significantly contribute to the perception of agritourism destination and its branding (Đurkin Badurina et al., 2023). In the agrarian areas of Eastern Serbia, traditional

cuisine plays a central role in preserving cultural heritage, but also in creating a unique experience for visitors. The quality of gastronomic service, which includes not only the quality of food but also the presentation, service, and ambiance, can be a crucial factor in tourist satisfaction (Hossain et al., 2023).

Furthermore, literature sources emphasize that gastronomic tourism is an increasingly important segment within agritourism, especially in regions with a rich gastronomic tradition. In the case of Eastern Serbia, which is known for its authentic cuisine and local specialties, gastronomic service can become one of the main motivations for tourists to visit. Research shows that tourists increasingly value the opportunity to try local specialties in an authentic environment, which not only contributes to their satisfaction but also encourages their intention to revisit the destination or recommend it to others (Streifeneder et al., 2023; Vukolić et al., 2023). The quality of gastronomic service also has a significant impact on the overall tourism offer of the destination. Literature often highlights that destinations that manage to align high-quality gastronomic service with other elements of tourism infrastructure have a better chance of becoming recognizable and competitive on the market (Kivela & Crotts, 2006; Kovalenko et al., 2023). In Eastern Serbia, where tourism often includes elements of cultural and rural tourism, the quality of gastronomic services can further enhance the tourism offer, attract different segments of tourists, and extend their stay (Dašić et al., 2020; Dimitrijević et al., 2022).

Based on previously researched literature and the presented facts, the null and alternative hypotheses of the research are defined as follows:

H1: The quality of food has a positive and statistically significant impact on overall tourist satisfaction with gastronomic services on agritourism farms in Eastern Serbia.

H2: The authenticity of gastronomic services has a positive and statistically significant impact on overall tourist satisfaction on agritourism farms in Eastern Serbia.

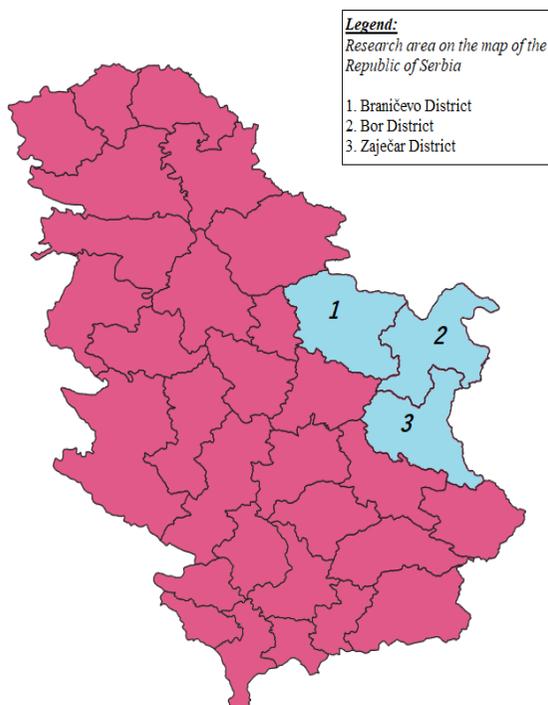
H3: The atmosphere and experience during the stay have a positive and statistically significant impact on overall tourist satisfaction on agritourism farms in Eastern Serbia.

H4: The presence of hosts and their expertise have a positive and statistically significant impact on overall tourist satisfaction with gastronomic services on agritourism farms in Eastern Serbia.

3. Methodology

The research was conducted with the aim of examining the impact of the quality of gastronomic services on tourist satisfaction at agritourism farms in Eastern Serbia. Below is a detailed methodology, including the sample, data collection methods, instruments, and statistical analyses used in the study. The research was carried out on a sample of 189 respondents, selected through random sampling. Data were collected using a structured questionnaire, which was distributed to 14 agritourism farms in Eastern Serbia from January to June 2024. Out of the 200 questionnaires distributed, only 189 fully completed surveys were considered. The questionnaires were collected through direct contact with farm visitors, ensuring a valid and representative sample for the research. The data collection sites included various farms known for their gastronomic services, allowing for the capture of different tourist preferences and experiences.

Figure 1: Research area on the map of the Republic of Serbia



Source: Author's research

The questionnaire used in the study consisted of several sections. The first part covered the basic demographic information of the respondents, including gender, age group, education level, and frequency of visits to agritourism farms. The second part focused on various aspects of the quality of gastronomic services, including questions on ingredient freshness, authenticity of preparation, farm atmosphere, and host expertise. These questions were rated on a Likert scale from 1 to 5, where 1 indicated “strongly disagree” and 5 indicated “strongly agree”. The third part of the questionnaire concerned the overall visitor satisfaction with the services and their intention to return or recommend the farm. The questionnaire was designed to avoid moral hazards, which could arise if respondents did not provide accurate or honest answers due to social desirability bias. To mitigate this risk, respondents were assured of the anonymity and confidentiality of their answers.

For data analysis, the statistical software SPSS, version 26.00, was used to analyze all the collected data. The internal reliability of the scales measured by the questionnaire was assessed using Cronbach's alpha coefficient, which was 0.877, indicating high reliability. The reliability of the scale after standardization was 0.871.

Descriptive statistical analysis was applied to calculate the mean ratings for each question and determinant of quality, and the results were presented in tables. Categorical variables were represented by relative and absolute frequencies, while numerical variables were analyzed using the arithmetic mean (M) and standard deviation (SD). The distribution of numerical variables was examined using measures of skewness and kurtosis, and the normality of the distribution was confirmed by the Shapiro-Wilk test ($W = 0.98$, $p = 0.35$), justifying the use of parametric statistical methods. To group the relevant predictors of the quality of gastronomic services, factor analysis was conducted. Before conducting the

analysis, the sample adequacy was tested using the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity. The KMO coefficient was 0.842, indicating a high level of sample adequacy for factor analysis, while Bartlett's test was statistically significant ($\chi^2 = 735.18$, $p < 0.001$), confirming that there was sufficient correlation among the variables for further analysis.

To examine the impact of various predictors on overall satisfaction, multiple regression analysis was applied. The results of the analysis showed that all factors – food quality, service authenticity, atmosphere, and host presence – had a statistically significant impact on overall tourist satisfaction. All p-values were less than 0.05, confirming the statistical significance of the model. The prediction of service quality through multiple regression enabled the identification of the most important factors contributing to tourist satisfaction.

4. Results

The total sample of 189 respondents encompassed various demographic characteristics. Of the total number, 54% were women and 46% were men. Regarding age distribution, 28% of respondents were in the 18-25 age group, 48% were in the 26-40 age group, and 24% were over 40 years old. The majority of respondents (60%) have a higher education, and there were no respondents without at least an elementary school education. Geographically, about 70% of the respondents came from urban areas (Belgrade, Novi Sad, Valjevo, Niš, and other places), while the rest were residents of rural areas. The respondents' occupations were diverse, with a significant number employed in the fields of tourism, education, and entrepreneurship.

Table 1 presents a summary of the descriptive statistics for the assessed quality statements. In total, 22 elements representing the quality of gastronomic services at agritourism farms, referred to as research variables, were evaluated. The evaluation utilized a five-point Likert scale. Some statements addressed the quality of the agritourism facility itself and the host's interaction with tourists, while others focused specifically on the quality of the gastronomic service. These statements were formulated and modified based on prior studies by [Bichler et al. \(2020\)](#) and [Yang and Luo \(2021\)](#).

The highest average score was given to the item related to the variety of local beverages ($M = 4.43$), indicating that tourists highly value the authenticity and diversity of the local offerings. Similarly, high ratings were recorded for items related to staff expertise ($M = 4.52$) and the personalization of meals according to guest preferences ($M = 4.25$), suggesting that these dimensions are key factors in satisfaction. Cronbach's alpha coefficients, ranging from 0.821 to 0.867, demonstrate a high level of reliability within each dimension, confirming that the questionnaire and its items are consistent. This means that respondents answered the questions consistently, and the various aspects of the quality of gastronomic services are interrelated and coherent.

Factor loadings, ranging from 0.659 to 0.783, indicate a strong correlation between individual items and the factors representing the quality of gastronomic services. The highest factor loadings were observed for items related to staff expertise (0.783) and the variety of local beverages (0.767), further confirming their importance in shaping overall tourist satisfaction. These high values suggest that these items strongly contribute to the factor structure and accurately represent the dimensions of service quality being measured.

Table 1: Descriptive values of quality predictors

Quality Predictors	M	SD	Factor loading
I believe that the authenticity of dishes positively influences my perception of quality	3.62	1.690	0.673
I prefer it when the ingredients are fresh	3.69	1.740	0.701
I value dishes prepared with locally grown ingredients more highly	3.91	1.510	0.745
I perceive a higher quality of gastronomic service if organic food is used	3.57	1.590	0.688
I appreciate the experience more when the hosts are present and attentive to me	3.47	1.390	0.664
I consider hygiene a key factor contributing to satisfaction	3.56	1.650	0.712
I prefer menus that offer a variety of dishes	3.84	1.760	0.693
I am more satisfied when dishes are tailored to my specific requests	4.25	1.390	0.742
I value high-quality food preparation	3.45	1.610	0.698
I consider the aesthetics of food presentation important for the overall experience	3.36	1.270	0.677
I am attracted to agritourism farms with a pleasant atmosphere	3.17	0.960	0.659
I appreciate it when the interior of the agritourism farm is adapted to a traditional style	3.44	1.450	0.671
I am more likely to return because of the good atmosphere and hospitality	4.20	1.750	0.748
I believe that staff expertise is crucial for complete satisfaction	4.52	1.200	0.783
I enjoy interactive activities such as cooking workshops	3.79	1.460	0.710
I value sustainable practices and environmental protection at agritourism farms	3.81	1.440	0.724
I prefer traditional preparation techniques that maintain the authenticity of gastronomic service	4.04	1.830	0.735
I am more satisfied when I have access to information about the dish and the origin of the ingredients	3.58	1.770	0.711
I believe that pricing should reflect the quality and value of the service	4.05	1.380	0.759
I value a rich selection of local homemade beverages	4.43	1.590	0.767
I emphasize the importance of high standards of service	3.86	1.720	0.721
I consider safety and security as fundamental requirements for a good experience	3.51	1.440	0.688

*M=arithmetic means, SD =standard deviation

Source: Authors' research

The results of the factor analysis indicate four key factors that significantly influence overall tourist satisfaction with gastronomic services in agritourism (Table 2).

Table 2: Factor Analysis Results

Factor	Items	Statistical Metrics
F1: Food quality	<p>I prefer it when the ingredients are fresh</p> <p>I value dishes prepared with locally grown ingredients more highly</p> <p>I perceive a higher quality of gastronomic service if organic food is used</p> <p>I prefer menus that offer a variety of dishes</p> <p>I am more satisfied when dishes are tailored to my specific requests</p> <p>I value high-quality food preparation</p> <p>I believe that pricing should reflect the quality and value of the service</p> <p>I value a rich selection of local homemade beverages</p>	<p>M = 3.72</p> <p>SD = 1.613</p> <p>α = 0.852</p> <p>% of Variance = 25.6%</p> <p>CR = 0.89</p> <p>AVE = 0.65</p>
F2: Authenticity of service	<p>I believe that the authenticity of dishes positively influences my perception of quality</p> <p>I prefer traditional preparation techniques that maintain the authenticity of gastronomic service</p> <p>I value sustainable practices and environmental protection on agritourism farms</p> <p>I am more satisfied when I have access to information about the dish and the origin of the ingredients</p> <p>I appreciate it when the interior of the agritourism farm is adapted to a traditional style</p>	<p>M = 3.70</p> <p>SD = 1.710</p> <p>α = 0.867</p> <p>% of Variance = 19.2%</p> <p>CR = 0.87</p> <p>AVE = 0.60</p>
F3: Atmosphere and experience	<p>I am attracted to agritourism farms with a pleasant atmosphere</p> <p>I am more likely to return because of the good atmosphere and hospitality</p> <p>I enjoy interactive activities such as cooking workshops</p> <p>I consider the aesthetics of food presentation important for the overall experience</p> <p>I believe that safety and security are fundamental requirements for a good experience</p>	<p>M = 3.46</p> <p>SD = 1.393</p> <p>α = 0.844</p> <p>% of Variance = 15.3%</p> <p>CR = 0.85</p> <p>AVE = 0.58</p>
F4: The presence and expertise of the host	<p>I appreciate the experience more when the hosts are present and attentive to me</p> <p>I believe that staff expertise is crucial for complete satisfaction</p> <p>I am more satisfied when the hosts provide detailed information about the dish and the origin of the ingredients</p> <p>I value the sustainable practices applied by the hosts and their commitment to environmental protection</p> <p>I emphasize the importance of high standards of service</p>	<p>M = 3.83</p> <p>SD = 1.350</p> <p>α = 0.873</p> <p>% of Variance = 18.5%</p> <p>CR = 0.88</p> <p>AVE = 0.63</p>
Overall satisfaction	<p>I consider hygiene a key factor contributing to satisfaction</p> <p>I believe that pricing should reflect the quality and value of the service</p>	<p>M = 4.17</p> <p>SD = 1.506</p> <p>α = 0.869</p> <p>% of Variance = 21.4%</p> <p>CR = 0.90</p> <p>AVE = 0.66</p>

Source: Authors' research

The greatest impact is attributed to food quality (25.6% of the variance), which includes freshness, local origin, and organic preparation of dishes. Service authenticity (19.2% of the variance) also proved to be important, as tourists value traditional preparation techniques and the authenticity of the dishes. Atmosphere and experience (15.3% of the variance)

encompass factors such as a pleasant atmosphere and interactive activities, while the presence and expertise of the hosts (18.5% of the variance) are essential in creating a positive experience. All factors exhibit high internal consistency, confirming their significance in shaping overall tourist satisfaction.

Table 3 provides a summary of the multiple regression analysis models, showing how the 22 questions about the quality of gastronomic services at agritourism farms, as predictors, influence the dependent variable.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.786 ^a	0.623	0.583	0.568
a. Predictors: 22 Questions on Quality				

Source: Authors' research

A correlation coefficient (R) of 0.786 indicates a strong positive correlation between the predictors and the dependent variable, suggesting that as the values of the predictors increase, the value of the dependent variable also rises. This implies that the predictors have a significant impact on the dependent variable. The R-squared value of 0.623 explains 62.3% of the variance in the dependent variable through the models, indicating that the predictors are effective in explaining changes in the dependent variable. This value is useful for evaluating the strength of the model in explaining variations in the dependent variable using the given predictors. The Adjusted R-squared value is 0.583, which represents the adjusted percentage of variance in the dependent variable explained by the model. This value accounts for the number of predictors and the sample size, and it remains high, suggesting that the model adequately explains the dependent variable even with the potential for overfitting due to a large number of predictors. The standard error of the estimate is 0.568, indicating that the model's predictions are relatively accurate, as this value represents the average deviation of the measured values from the predicted values of the model.

In the context of researching the impact of various quality factors of gastronomic service at agritourism farms on overall quality, Analysis of Variance (ANOVA) was conducted. ANOVA is useful for testing hypotheses about whether there are significant differences between groups and whether the independent variables effectively explain the variation in the dependent variable (Sawyer, 2009). In this case, the model uses 22 quality-related questions as predictors.

Table 4 presents the results of the ANOVA test, which was used to examine the overall statistical significance of the regression model. The results indicate that the model is statistically significant, with $F = 15.853$ and a p-value of 0.001, suggesting a significant influence of the predictors (22 questions on the quality of gastronomic services) on the dependent variable, namely, the overall quality of gastronomic services. These results confirm that the predictors collectively explain a significant portion of the variance in tourist satisfaction, making the model relevant for further analysis and interpretation.

Table 4: ANOVA results for regression analysis of overall quality of gastronomic service

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	103.660	22	4.758	15.853	0.001 ^b
	Residual	59.440	201	0.301		
	Total	163.1	223			
a. Dependent Variable: OVERALL QUALITY OF GASTRONOMIC SERVICE						
b. Predictors: 22 Questions on Quality						

Source: Authors' research

Table 5 presents the results of multiple regression analysis for individual predictors. This table represents the regression analysis results that evaluate how different factors influence overall satisfaction with service in the context of agritourism farms. The key elements of the table include independent variables (quality factors), coefficients (B), standard errors, standardized coefficients (Beta), t-values, and p-values, which together provide a comprehensive insight into the significance and impact of each factor on service satisfaction (Hung et al., 2016; Scaglione & Mendola, 2017).

Table 5: Regression analysis and confirmation of hypotheses

Hypothesis	Coefficient	Unstandardized Coefficients	Standardized Coefficients	T	Sig.	Confirmation
	Model	B	Std. Error	Beta		
	(Constant)	0.990	0.165	5.991	0.000	
H1	F1	0.310	0.055	2.288	0.000	Confirmed
H2	F2	0.370	0.058	2.535	0.023	Confirmed
H3	F3	0.260	0.049	3.021	0.012	Confirmed
H4	F4	0.390	0.060	7.713	0.003	Confirmed

Source: Authors' research

The results of the regression analysis show that all key factors significantly contributed to explaining the dependent variable, i.e., the overall tourist satisfaction with gastronomic services on agritourism farms in Eastern Serbia. The constant in the model has a B = 0.990 and t = 5.991 (p = 0.000), indicating that even in the absence of specific factors, there is a baseline level of satisfaction that could be attributed to other unaccounted-for variables. This baseline satisfaction may be related to the general pleasantness of the environment, natural beauty, or the inherent structure of services on the farms. The analysis of food quality reveals a significant positive impact on overall satisfaction. With B = 0.310, a t-value of 2.288, and a p-value of 0.000, it is evident that the higher the quality of the ingredients, their freshness, and the method of food preparation, the greater the tourist satisfaction. These findings indicate that food plays a central role in shaping a positive tourist experience at agritourism farms. Fresh, local, and well-prepared food not only contributes to a positive experience but can also significantly increase the likelihood of tourists returning or recommending the destination to others.

Service authenticity also emerged as a significant factor in satisfaction, with B = 0.370, t = 2.535, and p = 0.023. These results suggest that tourists value authentic gastronomic experiences, such as traditional preparation techniques and local specialties. Authenticity contributes to creating a unique sense of connection with the culture and traditions of the area, which further enhances their sense of satisfaction. Atmosphere and the overall experience during the stay, which include traditional interior design, a pleasant atmosphere, and interactive activities such as cooking workshops, also have a positive impact on satisfaction, with B = 0.260, t = 3.021, and p = 0.012. This result underscores the importance

of ambiance and creating a welcoming environment for tourists. A positive atmosphere helps shape the overall impression of the destination, while additional activities allow tourists to immerse themselves more deeply in local culture and traditions.

The greatest impact on tourist satisfaction is attributed to the presence and expertise of the hosts, as evidenced by $B = 0.390$, $t = 7.713$, and $p = 0.003$. These results highlight that interaction with the hosts is crucial for creating a positive experience. The expertise of the hosts, their attentiveness, and their engagement in service delivery directly influence tourist satisfaction, creating a sense of hospitality and care for the guests. This factor is particularly important as it directly contributes to tourists' sense of safety and comfort, significantly fostering their loyalty and encouraging repeat visits.

5. Discussion

This study provides valuable insights into the factors influencing the overall quality of gastronomic services on agritourism farms in Eastern Serbia. The findings reveal that certain aspects, such as dish authenticity, food preparation quality, and host presence, are critical determinants of tourist satisfaction. These results align with existing literature that emphasizes the importance of authenticity and quality in shaping positive tourist experiences in rural and agritourism contexts (Björk & Kauppinen-Räsänen, 2016; Moral-Cuadra et al., 2023). One of the most intriguing findings is the paradoxical negative impact of high-quality food preparation on satisfaction. This outcome suggests that while tourists may have high expectations regarding food quality, the reality may not always meet these expectations, leading to dissatisfaction. This discrepancy highlights the importance of managing tourist expectations through clear communication and transparency about what can realistically be delivered. It also underscores the need for continuous training and development of staff to ensure that food quality not only meets but exceeds tourist expectations.

The study also uncovered that while factors such as the freshness of ingredients were not statistically significant in the regression analysis, they may still play an indirect role in shaping overall satisfaction. This finding suggests that the interplay between different service components is complex and that some factors may exert their influence through interactions with others. For instance, the freshness of ingredients might be more appreciated when combined with other elements, such as traditional preparation techniques or the host's attentiveness. Another important aspect of this research is the role of sustainable practices and environmental responsibility. Although these factors were found to have a lesser impact on satisfaction, they remain crucial in the broader context of sustainable tourism development. Educating tourists about the benefits of sustainable practices and integrating these practices into the overall experience could enhance their perceived value and potentially increase satisfaction in the long term. The study's methodological approach, particularly the use of regression analysis, demonstrates the effectiveness of quantitative methods in uncovering and explaining complex relationships between service quality factors and tourist satisfaction. The results provide a solid foundation for future research, particularly in exploring how different cultural and geographic contexts may influence the impact of these factors.

In practical terms, the findings offer valuable guidance for agritourism farm operators and tourism policymakers. By focusing on the key drivers of satisfaction identified in this study, stakeholders can develop strategies that enhance the overall tourist experience, leading to increased loyalty and repeat visits. Additionally, the insights gained from this research can inform the development of targeted marketing campaigns that highlight the most valued aspects of the gastronomic experience. Overall, this study contributes to the growing body of literature on service quality in agritourism, offering both theoretical and practical

implications. The findings underscore the importance of understanding the specific needs and expectations of tourists in this niche market, and they provide a roadmap for improving the quality and competitiveness of agritourism services in Eastern Serbia. Further research is encouraged to explore these relationships in different settings and to continue refining the models of service quality that can best support the sustainable development of agritourism.

6. Conclusion

This research provides significant insights into the impact of various quality predictors on the overall quality of gastronomic service on agritourism farms in Eastern Serbia. The regression analysis reveals that certain service aspects, such as dish authenticity, quality of food preparation, and host presence, have a statistically significant impact on overall service satisfaction. These results indicate that not only do certain quality factors positively influence user perception, but inadequate execution of those same factors can also negatively affect the user experience. The analysis also reveals that although some predictors, such as the freshness of ingredients, were deemed insignificant, they may have an indirect impact on satisfaction through their interactions with other factors. This highlights the complexity of the relationships between different service components and their effect on ultimate user satisfaction. The significant implications of this analysis lie in providing a foundation for a deeper understanding of the key factors that contribute to successful service in agritourism, which is particularly important for planning and implementing service strategies on these farms.

6.1. Theoretical implications

Theoretically, this research contributes to the literature on tourism and hospitality by deepening the understanding of specific factors that influence satisfaction with gastronomic services in the context of agritourism. Specifically, the study examines how different predictors of gastronomic service impact tourists' perceptions in Eastern Serbia, adding value to existing service quality models. The research also explores paradoxical findings, such as the negative impact of high-quality food preparation on satisfaction, which may stimulate further academic discussion and theoretical revision concerning user expectations and service standards. This work also extends the application of regression analysis in tourism, demonstrating how quantitative methods can effectively uncover and explain complex relationships between various service variables and tourist satisfaction. Through detailed statistical analysis, the study provides a methodological framework that can serve as a model for future studies in similar contexts.

6.2. Practical implications

The research provides deep insights into the impact of various quality factors of gastronomic service on overall satisfaction with services on agritourism farms in Eastern Serbia, highlighting practical implications that can be of great benefit to farm operators as well as decision-makers in the tourism sector. Key factors such as dish authenticity, food preparation quality, and host presence have been identified as significant predictors of service satisfaction, indicating the need for their emphasis on product and service development. Farms should focus on training their staff to ensure that dishes not only reflect local traditions but also exceed tourists' expectations. At the same time, marketing strategies should effectively communicate the high quality and originality of the offerings, using promotional materials and online content that highlight these attributes. Managing tourists' expectations is also crucial, especially in the light of findings that high expectations can

sometimes lead to negative perceptions. Transparency about what tourists can realistically expect can help minimize disappointment and improve satisfaction.

Sustainable practices and environmental responsibility, although showing a somewhat lesser impact, should not be overlooked. Instead, agritourism farms should work on educating tourists better about the benefits of these practices, perhaps through educational programs that increase tourists' appreciation for these efforts. Collecting feedback from tourists through regular surveys and online reviews can further inform agritourism farms about guests' needs and desires, allowing for quick and effective responses to issues related to gastronomic service. Strategic planning at both the farm level and broader regional level should rely on these insights to guide investments and development activities. Understanding the key factors that contribute to guest satisfaction can maximize the efficiency of any investment, increase guest satisfaction, and improve the overall success of agritourism initiatives. Ultimately, effective management of these aspects of gastronomic service can lead to a better overall experience for tourists, greater loyalty, and broader appeal of agritourism areas to tourists.

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Conflict of interest

The authors declare no conflict of interest.

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