



SUSTAINABLE TOURISM AS AN OPPORTUNITY FOR THE REVITALIZATION OF ZMAJEVO SPA: INSPIRATION FROM THE GOOD PRACTICE OF LENTI SPA IN HUNGARY

Anastasia Radosavljev¹,
Aleksandra Vujko^{2*},
Katarina Bjelić²

¹Student,
Singidunum University,
Belgrade, Serbia

²Singidunum University,
Belgrade, Serbia

Abstract:

This study explores the potential of Zmajevu, a rural settlement in Vojvodina with thermal and medicinal waters, for spa and wellness tourism development, using Lenti Spa in Hungary as a reference model. Field research was conducted between March 2024 and March 2025 in Lenti, where 229 visitors were surveyed through a structured Likert-scale questionnaire covering wellness, gastronomy, staff professionalism, hygiene, and price-quality perceptions. Descriptive statistics and Pearson's chi-square tests were applied to identify gender-based differences in satisfaction. Results show consistently high satisfaction across all dimensions, with women expressing statistically significant higher ratings in areas such as service diversity, staff expertise, authenticity, and gastronomy. These findings suggest that educated women of middle and older age represent the primary target group. The hypothesis that spa and wellness tourism, when grounded in quality, authenticity, and inclusivity, can transform Zmajevu into a competitive destination is confirmed. Practical implications highlight the importance of sustainable planning, local gastronomy, and service excellence.

Keywords:

spa tourism, wellness, gastronomy, sustainable tourism, Zmajevu, Lenti Spa.

INTRODUCTION

Tourism studies emphasize the crucial role of resource valorization in shaping the competitiveness of destinations (Clark *et al.*, 2026). Tourist potentials represent the complex interplay between natural, cultural, and human-made factors that, when adequately managed, can be transformed into tourism products of high market value (Jiao *et al.*, 2025). These potentials are often latent, requiring strategic planning, investment, and the integration of sustainable development principles to be realized in practice (Arici & Köseoglu, 2025). Within this framework, the notion of tourism resources is fundamental, encompassing natural endowments such as landscapes, water, climate, and biodiversity, as well as cultural and intangible heritage, infrastructure, and local knowledge (Chen *et al.*, 2025). The effective utilization of these resources is a prerequisite for creating distinctive tourism identities and avoiding homogenization in an increasingly competitive global market (Song *et al.*, 2023).

Correspondence:
Aleksandra Vujko

e-mail:
avujko@singidunum.ac.rs



The concept of sustainable tourism development has become central to contemporary tourism theory and practice, stressing the need to balance economic benefits with environmental preservation and social well-being (Arsić *et al.*, 2025a; Cvijanović *et al.*, 2025). Sustainable tourism implies responsible management of resources that ensures long-term viability while meeting the needs of both tourists and host communities (Turčinović *et al.*, 2025). This approach is particularly relevant in rural areas and undeveloped sites where resources exist but have not yet been incorporated into structured tourism offers (Knežević *et al.*, 2025; Vujko *et al.*, 2025a). By applying the principles of sustainability, such sites can develop in ways that avoid overexploitation and preserve authenticity, which is increasingly demanded by contemporary visitors (Bjelić *et al.*, 2024).

Wellness and spa tourism are among the fastest-growing segments of global tourism, shaped by demographic changes, lifestyle transformations, and rising awareness of health and well-being (Arsić *et al.*, 2025b). Theoretical perspectives position wellness tourism as a form of tourism that combines preventive healthcare, physical activity, nutrition, relaxation, and cultural enrichment (Szromek & Polok, 2022). Unlike traditional medical tourism, which focuses on treatment, wellness tourism is oriented toward prevention, balance, and quality of life (Arsić *et al.*, 2024). Spa tourism, closely related to wellness, integrates the therapeutic use of thermal and mineral waters with complementary services such as massages, hydrotherapy, saunas, and recreational activities (Dryglas & Salamaga, 2018). Numerous studies highlight that wellness and spa tourism are not only economically significant, but also socially and environmentally aligned with the ideals of sustainable tourism, as they promote health, local products, and authentic cultural expressions (Tomić & Košić, 2020; Arsić *et al.*, 2025a; Chen *et al.*, 2025). Empirical research has repeatedly shown that visitor satisfaction in wellness and spa tourism is shaped by multiple dimensions, including the quality and diversity of treatments, staff expertise and courtesy, hygiene, gastronomy, and perceptions of value for money (Pitakaso *et al.*, 2024). Gender-based analyses often reveal that women are more sensitive to service quality, authenticity, and diversity, which makes them a key market segment for destinations seeking to strengthen their competitive position (Azimi *et al.*, 2025). Additionally, gastronomy plays an increasingly central role in shaping the spa experience, with authenticity, local specialties, and organic ingredients strongly influencing perceptions of quality and value (Vujko *et al.*, 2025b; Arsić *et al.*, 2025b). These findings are important because they highlight the multidimensionality of satisfaction, which cannot be reduced to health services alone, but must be interpreted as a holistic experience (Wong *et al.*, 2024).

Within this theoretical framework, the case of Zmajevu illustrates the potential of an undeveloped site that possesses thermal and medicinal waters, but lacks recognition, infrastructure, and market positioning. Unlike established spa towns in Serbia, such as Sokobanja (Arsić *et al.*, 2024), Zmajevu remains virtually absent from the mental map of both domestic and international tourists. However, this absence should not be understood solely as a limitation. From the perspective of destination development theory, sites that have not yet been developed possess an opportunity to design their tourism offer from the outset in accordance with modern expectations of quality, sustainability, and authenticity (Dimitrovski *et al.*, 2024). The natural resource itself—thermal and healing water—constitutes the primary comparative advantage of Zmajevu, but its transformation into a tourism product requires careful conceptualization and integration with complementary services such as gastronomy, cultural interpretation, and wellness programs (González-Rodríguez *et al.*, 2023).

The subject of this research is the analysis of visitor satisfaction with wellness and gastronomic services in Lenti Spa, Hungary (Vizi & Strack, 2020) which serves as a reference model for the potential development of Zmajevu. By examining the factors that most strongly influence satisfaction in an already established spa, this study aims to identify elements that could be adapted and transferred to the context of Zmajevu, thereby providing guidelines for the creation of a sustainable and competitive tourism offer. The main goal of the research is to evaluate the role of wellness services, gastronomy, and perceptions of value for money in shaping visitor satisfaction and to interpret these findings with respect to the unused resources in Zmajevu. The tasks of the study include identifying gender-based differences in satisfaction, determining which service dimensions contribute most significantly to positive visitor experiences, and discussing how these insights can be applied to conceptualize a spa and wellness destination in Zmajevu. The guiding hypothesis is that spa and wellness tourism, when developed in accordance with principles of quality, authenticity, and inclusivity, has the capacity to transform Zmajevu from an unrecognized site with latent resources into a competitive destination, with educated, health-oriented, and predominantly female visitors representing the primary target market.



METHODOLOGY

The research presented in this paper was conducted with the aim of identifying, through the analysis of the successful development of Lenti Spa in Hungary, the key elements and mechanisms that could be applied in the process of revitalizing the once active, but currently neglected spa in the village of Zmajevó, in Vojvodina. Lenti Spa was selected as the reference destination due to the contextual similarities: both are small rural settlements with natural thermal resources, a historical spa function, and significant development potential, but also share a need for infrastructural and service improvements. Field research was carried out between March 2024 and March 2025, during which the authors made several visits to Lenti Spa, conducted surveys among visitors, and analyzed the key factors of its development. The main research instrument was a structured questionnaire consisting of 10 Likert-scale questions (ranging from 1 to 5), covering the following thematic areas: quality of wellness and spa treatments, diversity of the offer, hygiene of facilities, staff expertise and courtesy, gastronomy, price–quality ratio, use of local resources, and specialized dietary options.

The sample included 229 respondents, all tourists who visited Lenti Spa during the study period. A convenience sampling method was applied, and the demographic structure of respondents demonstrated balance and diversity: 55% of respondents were women, and the most represented age group was between 35 and 64 years. More than half of the respondents had higher education, which indicates a visitor profile characterized by high expectations regarding the quality of services and content. Data were analyzed using descriptive statistics and the Pearson chi-square test to identify statistically significant gender-based differences in perceptions of service quality.

Parallel to the study conducted in Lenti, a detailed valorization and spatial zoning analysis was undertaken for Zmajevó Spa as part of the revitalization planning. This analysis encompassed an assessment of existing natural resources (geothermal springs, landscape values, and microclimate), an evaluation of physical infrastructure (access roads, existing facilities, and opportunities for expansion), and the identification of potential functional zones, including health and therapeutic zones, recreational spaces, accommodation and gastronomy facilities, as well as cultural and educational areas. Valorization was based on available documentation, field observations, and consultations with experts in tourism, geothermal energy, and spatial planning. By combining empirical data from Lenti with the spatial-planning assessment of Zmajevó, a foundation was established for a proposed model of sustainable and integrated spa revitalization. The goal is to create a competitive and thematically well-profiled destination that meets the needs of target groups—primarily educated women in middle and older age categories—while simultaneously attracting younger populations through innovative services, all in line with the preservation of the natural and cultural values of the local community.

RESULT AND DISCUSSION

Based on the demographic data of visitors to Lenti Spa, several significant conclusions can be drawn that highlight the profile of spa tourists and provide useful guidelines for the revitalization of Zmajevó Spa. The gender structure of Lenti's visitors shows a slight predominance of women, with 55% compared to 45% men. This distribution suggests that spa tourism tends to attract women somewhat more, likely due to their interest in health, wellness, and relaxation services, which are often at the forefront of female preferences. For Zmajevó, this indicates the importance of designing offers and an overall atmosphere appealing to women – including spa centers, relaxation programs, as well as cultural and gastronomic experiences. The age structure shows a strong presence of middle-aged and older visitors. The most numerous groups are those aged 35–44 (23.1%), 55–64 (22.3%), and 45–54 (20.5%), meaning that more than 65% of visitors belong to categories typically characterized by financial stability and an interest in combining health, leisure, and moderate activity. An additional 12.7% are over 65, which confirms the role of spas as destinations for elderly visitors seeking therapeutic and relaxation services. In this sense, the revitalization of Zmajevó Spa should prioritize the development of medical and therapeutic facilities, a peaceful environment, and infrastructural accessibility adapted to individuals with reduced mobility. Among younger visitors (18–34 years), who account for about 21% of the sample, interest in spa tourism is less pronounced. However, this target group could be further motivated through innovative and modernized offers (digital platforms, wellness packages, sports and nature-based activities).



In this way, a revitalized Zmajevu could position itself as attractive also for younger travelers seeking a balance between healthy lifestyles and leisure.

The educational profile indicates a high level of education: more than half of the respondents (52.8%) hold a higher education degree, with an additional 4.4% possessing a master's or doctoral qualification. Another 40.6% completed secondary education, while only 1.7% have primary education. This confirms that spa visitors often come from highly educated social groups, which implies expectations for professional, high-quality services, as well as cultural, educational, and thematic content that goes beyond traditional spa offerings. For Zmajevu, this means that its revitalization should integrate not only therapeutic and recreational services, but also culturally meaningful and knowledge-oriented programs. The demographic profile of Lenti's visitors thus suggests that spa tourism has strong potential among educated women in middle and older age groups. In the context of Zmajevu's revitalization, it will be essential to design an offer that combines peace, health care, local culture, and modern services. At the same time, there is room for innovation to engage younger generations through digital visibility and contemporary activities. Using Lenti Spa as a reference model can guide the creation of a competitive, sustainable, and well-adapted tourism offer for Zmajevu.

Table 1. Quality of Wellness and Spa Treatments at Lenta Spa

		Quality of Wellness and Spa Treatments			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	71	32	103
	Female	7	80	39	126
Total		7	151	71	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		5,977 ^a	2	,050	

Source: Authors

The results presented in Table 1 indicate that visitors to Lenti Spa are generally satisfied with the quality of wellness and spa treatments. Out of 229 respondents, as many as 151 (65.9%) stated that they were "satisfied," while an additional 71 (31%) rated the treatments as "very satisfactory." Only 7 respondents (3.1%) reported having "no opinion," and notably, none of the male respondents selected this option, which may suggest that men are more decisive in their evaluations of service quality. When examining gender differences, it is evident that a slightly higher number of women reported being "very satisfied" (39) compared to men (32), despite the fact that there were more women in the sample overall (126 women vs. 103 men). This finding may indicate that women tend to express higher levels of satisfaction regarding the quality of wellness and spa treatments. Such an insight is relevant when planning the revitalization of Zmajevu Spa, particularly if the goal is to attract women as the dominant user group.

The Pearson chi-square test yielded a value of $\chi^2 = 5.977$, with degrees of freedom $df = 2$ and a p-value of 0.050, which lies exactly at the threshold of statistical significance. This result suggests the presence of a borderline significant difference in perceptions of wellness and spa treatment quality between male and female visitors. Although the difference is not particularly strong, it may, nevertheless, reflect varying expectations or experiences based on gender. Most visitors to Lenti Spa are satisfied with the quality of wellness and spa treatments, with women showing a somewhat higher tendency to report very high satisfaction. This, combined with the borderline significance of the statistical test, can serve as a valuable guideline for shaping the offer in Zmajevu Spa – highlighting the need for high-quality, diverse, and personalized treatments that address the preferences of both men and women, but with particular attention to female expectations.



Table 2. Visitor satisfaction with the diversity of wellness and spa services (massages, hydrotherapy, saunas) by gender

		Diversity of wellness and spa services (massages, hydrotherapy, saunas)			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	71	32	103
	Female	8	77	41	126
Total		8	148	73	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		7,115 ^a	2	,029	

Source: Authors

The results presented in Table 2 show that the majority of visitors to Lenti Spa expressed satisfaction with the diversity of wellness and spa services, including massages, hydrotherapy, and saunas. Out of 229 respondents, 148 (64.6%) indicated that they were “satisfied,” while 73 (31.9%) reported being “very satisfied.” Only 8 respondents (3.5%) stated that they had “no opinion.” A breakdown by gender reveals that men are more decisive in their evaluations: none of the male respondents selected “no opinion,” compared to 8 women. Among those “very satisfied,” women slightly outnumber men (41 vs. 32), although men represent a somewhat larger share of those who are “satisfied” (71 vs. 77). This distribution suggests that women are more inclined to express a higher degree of satisfaction with the diversity of wellness services. The Pearson chi-square test yielded $\chi^2 = 7.115$, with $df = 2$ and $p = 0.029$, indicating a statistically significant difference in satisfaction levels between male and female visitors. This finding highlights that gender plays a role in shaping perceptions of service diversity, with women showing a stronger preference for a broader range of wellness experiences. For the revitalization of Zmajevu Spa, this suggests the importance of developing a varied and high-quality offer that appeals particularly to female visitors, while still maintaining a balance to meet the expectations of male clientele as well.

Table 3. Visitor satisfaction with the hygiene and cleanliness of wellness facilities by gender

		Hygiene and cleanliness of wellness facilities			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	71	32	103
	Female	6	80	40	126
Total		6	151	72	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		5,167 ^a	2	,075	

Source: Authors

The results presented in Table 3 indicate that visitors to Lenti Spa are largely satisfied with the hygiene and cleanliness of the wellness facilities. Out of 229 respondents, 151 (65.9%) reported being “satisfied,” while 72 (31.4%) rated cleanliness as “very satisfactory.” Only 6 respondents (2.6%) stated that they had “no opinion.” When analyzed by gender, the data reveal slight differences in perception. None of the male respondents selected “no opinion,” whereas 6 women did. Among those who were “very satisfied,” women reported slightly higher numbers (40) compared to men (32). At the same time, men accounted for a somewhat larger share of those “satisfied” (71 vs. 80 women). These results suggest that women are somewhat more inclined to express the highest level of satisfaction with cleanliness, although both genders consistently perceive hygiene as satisfactory. The Pearson chi-square test produced a value of $\chi^2 = 5.167$ with $df = 2$ and $p = 0.075$, which falls above the conventional threshold of statistical significance. This means that the observed differences between male and female perceptions of cleanliness cannot be considered statistically significant, although they may still reflect subtle variations in expectations or evaluative criteria. Overall, the findings confirm that hygiene and cleanliness are strong points of the Lenti Spa experience, universally recognized by visitors regardless of gender.



For the revitalization of Zmajevo Spa, maintaining high standards of hygiene should remain a fundamental priority, as it constitutes a baseline expectation for all visitor groups, with special attention to ensuring consistency that meets the slightly higher standards expressed by female guests.

Table 4. Visitor satisfaction with staff expertise and courtesy by gender

		Staff expertise and courtesy			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	66	37	103
	Female	7	79	40	126
Total		7	145	77	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		6,033 ^a	2	,049	

Source: Authors

The results in Table 4 highlight that visitors to Lenti Spa highly value the expertise and courtesy of the staff. Out of 229 respondents, 145 (63.3%) reported being “satisfied,” while as many as 77 (33.6%) stated they were “very satisfied.” Only 7 respondents (3.1%) indicated that they had “no opinion.” A gender-based breakdown shows some meaningful differences. None of the male respondents selected “no opinion,” whereas 7 women did. Among those who were “very satisfied,” women slightly outnumber men (40 vs. 37), while men had a somewhat higher share of respondents reporting being “satisfied” (66 vs. 79 women). These results suggest that women may be more inclined to express the highest levels of satisfaction when evaluating staff professionalism and friendliness, although both groups report consistently positive experiences. The Pearson chi-square test yielded a value of $\chi^2 = 6.033$ with $df = 2$ and $p = 0.049$, which falls just below the threshold of statistical significance. This indicates that there is a statistically significant difference in how male and female visitors perceive staff expertise and courtesy. Although the difference is not large, it points to the importance of tailoring service approaches to gender-specific expectations. Overall, the findings emphasize that staff competence and kindness are key drivers of visitor satisfaction. For the revitalization of Zmajevo Spa, investing in staff training and service quality will be essential to ensure consistently high standards. Special attention should be given to creating personalized interactions that meet the slightly higher expectations observed among female visitors.

Table 5. Visitor satisfaction with the price–quality ratio of wellness services by gender

		Price–quality ratio of wellness services			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	61	42	103
	Female	6	76	44	126
Total		6	137	86	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		5,434 ^a	2	,066	

Source: Authors

The results presented in Table 5 show that visitors to Lenti Spa generally evaluate the price–quality ratio of wellness services positively. Out of 229 respondents, 137 (59.8%) declared themselves “satisfied,” while 86 (37.6%) expressed being “very satisfied.” Only 6 respondents (2.6%) indicated that they had “no opinion.” When analyzed by gender, some nuances appear. None of the male respondents chose “no opinion,” whereas 6 women did. In the category of “very satisfied,” women slightly outnumber men (44 vs. 42), although men constitute a somewhat higher proportion of those who are “satisfied” (61 vs. 76 women). This pattern suggests that women are more inclined to express the highest level of satisfaction with the balance between price and service quality, while men tend to assess this relationship as satisfactory but not exceptional. The Pearson chi-square test resulted in $\chi^2 = 5.434$, with $df = 2$ and $p = 0.066$. This value is slightly above the conventional



threshold of 0.05, meaning that the observed gender differences are not statistically significant. Nevertheless, the results point to subtle differences in perception that may reflect varying expectations or sensitivities regarding value for money between men and women. The findings confirm that a favorable price–quality ratio is a strong component of visitor satisfaction at Lenti Spa. For the revitalization of Zmajevu Spa, maintaining competitive pricing aligned with high service quality should be a strategic priority. This balance not only ensures loyalty among middle-aged and older clientele but also strengthens appeal among women, who appear slightly more responsive to value-added services and superior quality at acceptable prices.

Table 6. Visitor satisfaction with the quality of food and beverages in restaurants and hotels by gender

		Quality of food and beverages in restaurants and hotels			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	68	35	103
	Female	8	80	38	126
Total		8	148	73	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		6,855 ^a	2	,032	

Source: Authors

The data in Table 6 indicate that most visitors to Lenti Spa positively assessed the quality of food and beverages offered in restaurants and hotels. Out of 229 respondents, 148 (64.6%) reported being “satisfied,” while 73 (31.9%) stated they were “very satisfied.” Only 8 respondents (3.5%) selected “no opinion.” Gender differences reveal certain nuances. None of the male respondents reported having “no opinion,” compared to 8 women. In the category of “very satisfied,” women slightly outnumbered men (38 vs. 35), although men formed a relatively larger share among those “satisfied” (68 vs. 80 women). This pattern suggests that women tend to express the highest levels of satisfaction with food and beverage quality, while men are more inclined to rate it as satisfactory. The Pearson chi-square test yielded $\chi^2 = 6.855$ with $df = 2$ and $p = 0.032$, indicating a statistically significant difference between male and female perceptions. These findings imply that women may be more demanding or responsive when it comes to gastronomic quality, whereas men adopt a more moderate evaluative stance. For the revitalization of Zmajevu Spa, strengthening the gastronomic offer through diverse, high-quality menus that integrate local culinary traditions could be a key factor in attracting female clientele, while maintaining consistency and value would ensure satisfaction among male visitors as well.

Table 7. Visitor satisfaction with the authenticity and diversity of local specialties by gender

		Authenticity and diversity of local specialties			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	71	32	103
	Female	8	78	40	126
Total		8	149	72	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		6,978 ^a	2	,031	

Source: Authors

Table 7 shows that visitors to Lenti Spa expressed a high level of satisfaction with the authenticity and diversity of local culinary specialties. Out of 229 respondents, 149 (65.1%) stated that they were “satisfied,” while 72 (31.4%) declared themselves “very satisfied.” Only 8 respondents (3.5%) reported “no opinion.” When gender differences are examined, none of the male respondents selected “no opinion,” in contrast to 8 women. Among those who were “very satisfied,” women slightly outnumbered men (40 vs. 32), whereas men recorded marginally higher numbers in the “satisfied” category (71 vs. 78 women). This distribution suggests that women are more inclined to express the highest satisfaction levels when evaluating local culinary authenticity,



while men tend to provide more moderate assessments. The Pearson chi-square test produced $\chi^2 = 6.978$, with $df = 2$ and $p = 0.031$, indicating a statistically significant difference between male and female perceptions. This outcome underscores that women may place a relatively stronger emphasis on culinary authenticity and variety, perceiving it as an added value of the spa experience. For the revitalization of Zmajevu Spa, the findings highlight the importance of developing a gastronomic offer grounded in authentic local specialties and culinary diversity. Such a strategy not only enhances the cultural dimension of the destination but also resonates particularly strongly with female visitors, whose preferences appear more closely tied to the authenticity of food experiences.

Table 8. Visitor satisfaction with the use of local and organic ingredients in gastronomy by gender

		Use of local and organic ingredients in gastronomy			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	69	34	103
	Female	8	80	38	126
Total		8	149	72	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		6,793 ^a	2	,033	

Source: Authors

The data in Table 8 demonstrate that visitors to Lenti Spa positively evaluate the use of local and organic ingredients in gastronomy. Out of 229 respondents, 149 (65.1%) reported being “satisfied,” while 72 (31.4%) expressed being “very satisfied.” Only 8 respondents (3.5%) indicated “no opinion.” A closer look at gender distribution reveals meaningful nuances. None of the male respondents chose “no opinion,” whereas 8 women did. Within the category of “very satisfied,” women slightly outnumbered men (38 vs. 34), while men recorded a marginally higher share among those “satisfied” (69 vs. 80 women). This distribution suggests that women are somewhat more inclined to express the highest levels of satisfaction with the authenticity provided by local and organic gastronomy, whereas men tend to adopt a more moderate evaluative stance. The Pearson chi-square test yielded $\chi^2 = 6.793$ with $df = 2$ and $p = 0.033$, confirming a statistically significant gender-based difference in satisfaction. These results highlight that women may place relatively greater value on the use of locally sourced and organic ingredients, perceiving it as an important element of both health and authenticity in their overall spa experience. For the revitalization of Zmajevu Spa, prioritizing partnerships with local producers and emphasizing organic food practices could be a competitive advantage. Such an approach would not only align with global sustainability trends but also respond directly to female visitor expectations, strengthening the spa’s gastronomic identity and appeal.

Table 9. Visitor satisfaction with the price–quality ratio in restaurants and taverns by gender

		Price–quality ratio in restaurants and taverns			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	71	32	103
	Female	6	64	56	126
Total		6	135	88	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		10,706 ^a	2	,005	

Source: Authors



Table 9 illustrates that the majority of Lenti Spa visitors positively assessed the price–quality ratio in restaurants and taverns. Out of 229 respondents, 135 (59.0%) declared themselves “satisfied,” while 88 (38.4%) were “very satisfied.” Only 6 respondents (2.6%) indicated “no opinion.” Gender differences are particularly pronounced in this dimension. None of the male respondents selected “no opinion,” compared to 6 women. In the “very satisfied” category, women markedly outnumbered men (56 vs. 32), while men were more dominant in the “satisfied” category (71 vs. 64 women). This pattern suggests that women more frequently perceive the price–quality ratio in restaurants and taverns as highly favorable, whereas men tend to give more moderate, satisfactory evaluations. The Pearson chi-square test produced $\chi^2 = 10.706$ with $df = 2$ and $p = 0.005$, confirming a statistically significant difference between male and female perceptions. This result indicates that gender plays a clear role in shaping satisfaction with value-for-money in gastronomic services, with women showing greater sensitivity to balanced pricing combined with high service quality. For the revitalization of Zmajevu Spa, these findings underline the importance of transparent pricing strategies and the design of gastronomic offers that visibly reflect value for money. Tailoring restaurant and tavern services to highlight generous portions, authenticity, and quality at fair prices could be especially effective in meeting the expectations of female visitors, while ensuring consistency will maintain positive evaluations among men.

Table 10. Visitor satisfaction with vegetarian, vegan, and specialized dietary options by gender

		Vegetarian, vegan, and specialized dietary options			Total
		No opinion	I am satisfied	I am very satisfied	
Gender	Male	0	72	31	103
	Female	4	79	43	126
Total		4	151	74	229
		Value	df	Asymptotic Significance (2-sided)	
Pearson Chi-Square		4,001 ^a	2	,135	

Source: Authors

The results in Table 10 show that visitors to Lenti Spa expressed generally positive evaluations regarding the availability of vegetarian, vegan, and specialized dietary options. Out of 229 respondents, 151 (65.9%) reported being “satisfied,” while 74 (32.3%) stated they were “very satisfied.” Only 4 respondents (1.7%) indicated “no opinion.” Gender-based differences are modest. None of the male respondents selected “no opinion,” while 4 women did. Among those “very satisfied,” women outnumber men (43 vs. 31), while in the “satisfied” category, men accounted for 72 compared to 79 women. These results suggest that women tend to show slightly higher appreciation for dietary diversity, especially in terms of specialized food options, though both genders remain broadly satisfied. The Pearson chi-square test yielded $\chi^2 = 4.001$ with $df = 2$ and $p = 0.135$, which does not indicate statistical significance. This means that gender differences in satisfaction with vegetarian, vegan, and specialized menus cannot be confirmed as meaningful. Nonetheless, the observed trend reflects growing expectations among women for broader dietary inclusivity. For the revitalization of Zmajevu Spa, ensuring the availability of diverse dietary options—particularly vegetarian, vegan, and other specialized menus—can serve as a value-added feature. While this aspect may not significantly differentiate male and female visitor experiences, it contributes to positioning the spa as a modern, inclusive destination aligned with contemporary nutritional and lifestyle trends.

The analysis of visitor satisfaction with wellness and gastronomic services at Lenti Spa provides a comprehensive framework for understanding how a future spa destination such as Zmajevu might be conceptualized. Across all ten examined dimensions, the findings reveal high levels of satisfaction, with nuanced gender-based differences that offer important insights for the design of a competitive and sustainable tourism offer in a location that currently remains unknown and underutilized. Although Zmajevu does not yet operate as a spa destination, the presence of thermal and medicinal waters creates a foundation upon which an experience-oriented product could be built, drawing from the successful practices observed in Lenti. The first dimension, related to general satisfaction with wellness and spa treatments, confirmed that most visitors assessed the services positively, with women somewhat more likely to report being very satisfied. The borderline statistical significance in gender



differences indicates that while both groups value the treatments, women may demonstrate higher sensitivity to quality and personalization. When considering the potential of Zmajevó, this finding suggests that the development of diverse, carefully designed treatments would resonate strongly with female clientele, who appear to be the primary driver of demand in this market segment. The second dimension, concerning the diversity of the wellness offer, including massages, hydrotherapy, and saunas, revealed significant differences by gender, with women more frequently expressing the highest levels of satisfaction. This highlights the importance of variety in shaping the spa experience, as repetition and uniformity appear insufficient to fully meet expectations. Zmajevó, therefore, should aim to design a wellness program that integrates a wide range of services, aligning therapeutic uses of mineral water with complementary relaxation and health-oriented activities. Such an approach would help establish the destination not only as a place for treatment, but also as an environment that encourages holistic wellbeing.

Cleanliness and hygiene were also assessed very positively, with minimal variation between men and women and no statistically significant difference. The consistency of these evaluations suggests that hygiene constitutes a baseline expectation rather than a competitive advantage. For Zmajevó, this implies that any future development must ensure uncompromising sanitary standards, as visitors are unlikely to tolerate deficiencies in this domain. Hygiene can thus be regarded as a prerequisite for trust-building rather than a differentiating factor, but it nonetheless represents a critical element of long-term competitiveness. The evaluation of staff expertise and courtesy provided further nuance, as gender differences reached statistical significance, with women more frequently reporting the highest satisfaction levels. This indicates that visitors perceive interpersonal interaction as a crucial dimension of the spa experience, and women in particular respond positively when services are personalized, professional, and empathetic. For Zmajevó, this underscores the necessity of investing in staff training, not only to ensure technical competence but also to cultivate service excellence that contributes to emotional engagement and loyalty. The assessment of price–quality ratios in wellness services confirmed that value for money represents an essential component of visitor satisfaction. Although gender differences were not statistically significant, the results suggest that women were slightly more inclined to evaluate the relationship very positively. A similar but more pronounced pattern emerged in the context of restaurants and taverns, where women expressed significantly higher levels of satisfaction with the price–quality balance. This finding highlights the importance of transparent pricing and clear communication of value, which could be of particular relevance to Zmajevó, as new destinations must build their reputation through fairness and trust. The ability to deliver high-quality services at accessible prices would strengthen the site's attractiveness, particularly for women, who appear more responsive to value-added gastronomic experiences.

Gastronomy itself emerged as a decisive element of the spa experience. Visitors expressed strong satisfaction with food and beverage quality in restaurants and hotels, as well as with the authenticity and diversity of local specialties. Women again reported higher levels of satisfaction in these domains, and the observed differences were statistically significant. This pattern suggests that gastronomy functions as more than an ancillary service; it is integral to the identity of a spa destination, especially when it emphasizes authenticity and cultural embeddedness. For Zmajevó, the implication is clear: developing a gastronomic offer based on local recipes, traditional methods of preparation, and organic sourcing would resonate particularly strongly with female visitors, thereby differentiating the destination from more standardized spa environments. The significance of local and organic ingredients was further confirmed in the results, where women again demonstrated higher levels of appreciation and the gender difference proved statistically significant. This trend aligns with broader shifts in consumer behavior toward sustainability, health, and authenticity, indicating that spas are increasingly evaluated not only in terms of treatment quality but also in their contribution to sustainable lifestyles. For Zmajevó, partnerships with local farmers and organic producers would thus serve a dual purpose: enhancing the visitor experience and strengthening the integration of the spa into the local economy, thereby supporting both sustainability and community development. Specialized dietary options such as vegetarian and vegan menus received positive evaluations as well, although gender differences were not statistically significant. Nonetheless, women reported higher satisfaction levels, indicating that dietary inclusivity contributes to visitor satisfaction even if it is not yet a decisive factor. For Zmajevó, the incorporation of such menus would provide an opportunity to signal modernity and inclusiveness, appealing particularly to younger and health-conscious audiences.



When considered together, the results from Lenti reveal that satisfaction is constructed as a multidimensional experience, dependent on the integration of wellness services, staff competence, hygiene, gastronomy, price fairness, and inclusivity. Gender differences, which were frequently statistically significant, suggest that women place relatively stronger emphasis on authenticity, personalization, and value, while men tend to adopt more moderate evaluations. For Zmajevu, these findings are highly relevant because they point to the market segments most likely to be attracted to a new spa destination. Educated, health-conscious, and predominantly female visitors emerge as the key target group, and designing an offer that resonates with their expectations could provide Zmajevu with a competitive advantage. Unlike Lenti, which already operates as a developed spa facility, Zmajevu remains largely unknown, with its thermal and medicinal waters representing an underutilized natural resource. The absence of infrastructure, visibility, and market positioning means that the site does not yet exist in the mental maps of potential visitors. However, this absence also creates opportunities. Without the burden of outdated facilities or entrenched perceptions, Zmajevu has the potential to develop from scratch a model of spa tourism that is aligned with contemporary expectations of health, authenticity, and sustainability. By integrating lessons from Lenti, Zmajevu could emerge not as a replica of existing spas, but as an innovative and distinctive destination that builds its identity on natural resources, local culture, and modern service standards. The discussion of visitor satisfaction at Lenti therefore provides not only an empirical insight into current patterns of spa tourism demand, but also a roadmap for translating unused resources into a viable tourism product. For Zmajevu, the key challenge will be transforming its latent potential into a recognizable brand. If successfully implemented, the development of wellness and gastronomic services grounded in quality, authenticity, and inclusivity could enable Zmajevu to transition from an unknown site with natural resources to a competitive and sustainable spa destination that meets the needs of diverse visitor groups while contributing to regional development.

CONCLUSION

The conducted research, based on the case study of Lenti Spa and the parallel valorization of Zmajevu, provides a comprehensive insight into the elements that shape visitor satisfaction and offers valuable guidelines for the future development of a new spa destination in Vojvodina. The findings demonstrate that satisfaction with spa and wellness services is a multidimensional construct, strongly influenced not only by the quality of treatments, hygiene, and staff professionalism but also by the authenticity of gastronomy, the integration of local and organic products, and perceptions of value for money. Gender-based differences, which were in several cases statistically significant, reveal that women tend to place greater emphasis on authenticity, diversity, and service personalization, while men show more moderate but consistently positive evaluations. This pattern suggests that educated women of middle and older age, who also represented the most prominent demographic group in the survey, should be regarded as the primary target market for spa tourism development in Zmajevu. The comparison with Lenti confirms that sustainable success in spa tourism depends on the integration of natural healing resources with complementary services that create a holistic experience. For Zmajevu, which at present exists only as a site with unused thermal and medicinal waters and without any developed tourism infrastructure, this means that development should not be limited to the exploitation of natural resources but must encompass a carefully designed wellness and gastronomic offer, high service standards, and transparent pricing strategies. Such an approach not only ensures competitiveness but also aligns with broader principles of sustainable tourism, strengthening the connection with local communities through the valorization of culture, gastronomy, and local agricultural products. In this sense, the results of the study confirm the main hypothesis that spa and wellness tourism, when developed on the principles of quality, authenticity, and inclusivity, has the potential to transform Zmajevu from an unknown and unused location into a recognizable and competitive destination.

At the same time, it is necessary to acknowledge the limitations of the study. The research was based on a single case study of Lenti Spa, which, although comparable in terms of context, already possesses an established tourism tradition and infrastructure. The convenience sample of 229 respondents, although sufficient for statistical analysis, limits the possibility of generalization, particularly in relation to international visitors or other demographic groups that were not strongly represented. The reliance on self-reported data also



carries the risk of subjective bias, especially in questions related to satisfaction and perceptions of value. Future research should therefore expand to include comparative analyses with multiple spa destinations, both in Serbia and the wider region, in order to identify whether the observed patterns are consistent across different contexts. Longitudinal studies would also be of value in assessing how visitor perceptions change over time as new destinations, such as Zmajev, gradually develop. Moreover, further attention should be paid to younger age groups, whose share in the sample was relatively small, but who represent a growing market for modern wellness and lifestyle-oriented tourism. The practical implications of the study are clear. The revitalization of Zmajev must begin with the development of basic spa and wellness infrastructure around its thermal and medicinal waters, while at the same time integrating high-quality gastronomic services based on local and organic products. Staff training and the establishment of service standards should be considered as equally important as the physical infrastructure, since interpersonal interactions proved to be a decisive factor of satisfaction. Transparent pricing and clear communication of value are essential for building trust among visitors, while specialized offers such as vegetarian, vegan, and other dietary options may serve as an additional competitive advantage in attracting health-conscious and younger tourists. Finally, the creation of a strong brand identity, grounded in authenticity and sustainability, is crucial for positioning Zmajev as a new and distinctive spa destination that meets the expectations of diverse visitor groups and contributes to the socio-economic development of the local community.

REFERENCES

- Arici, H. E., & Köseoglu, M. A. (2025). What are the most influential drivers of tourism destination competitiveness? *Journal of Destination Marketing & Management*, 36, 100990. <https://doi.org/10.1016/j.jdmm.2025.100990>
- Arsić, M., Bojović, P., & Vujko, A. (2025a). The role of receptive travel agencies in promoting sustainable rural-spa destination development. *Geojournal of Tourism and Geosites*, 60(2spl), 1168–1178. <https://doi.org/10.30892/gtg.602spl14-1490>
- Arsić, M., Vujko, A., & Knežević, M. (2024). Development Perspectives of Wellness and Spa Tourism in the context of the tourism business sustainability. *Sustainability* 2024, 16(20), 8760. <https://doi.org/10.3390/su16208760>
- Arsić, M., Vujko, A., Nedeljković, D. (2025b). The synergy between gastronomy and active tourism as indicator of sustainable rural wellness and spa destination development. *Economic of agriculture*, 72(1), 357–373. <https://doi.org/10.59267/ekoPolj2501357a>
- Azimi, A., Moradi, E., Yousefi, B., & Hassani, Z. (2025). Bridging theory and practice in healthy aging: The role of wellness tourism in shaping psychosocial outcomes. *Acta Psychologica*, 257, 105062. <https://doi.org/10.1016/j.actpsy.2025.105062>
- Bjelić, K., Vujko, A., & Panić, A. (2024). Comparative analysis of the tourist destinations competitiveness in function to improve the tourist offer - Kranjska Gora and Zlatibor case study. *The European Journal of Applied Economics, EJAE* 2024, 21(2): 88 – 106, <https://10.5937/EJAE21-50045>,
- Chen, C.-T. (2025). Atmosphere, function, and moderation: Congruity, environmental attitude, happiness, and satisfaction in SPA hotels. *International Journal of Hospitality Management*, 131, 104289. <https://doi.org/10.1016/j.ijhm.2025.104289>
- Chen, J., Wu, J., Wang, D., & Stantic, B. (2025). Beyond static rankings: A tourist experience-driven approach to measure destination competitiveness. *Tourism Management*, 106, 105022. <https://doi.org/10.1016/j.tourman.2024.105022>
- Clark, C., Matarrita-Cascante, D., Tkatch, J. R. V., & Fariha, M. S. (2026). Examining the competitive advantage of nature-based destinations: Applying a holistic resource-based theory framework. *Tourism Management*, 112, 105281. <https://doi.org/10.1016/j.tourman.2025.105281>
- Cvijanović, D., Vujko, A., Cvijanović, D. (2025): Scanning the future of rural tourism development – advantages and limits for sustainable indicators approach. *Problems of Agricultural Economics Zagadnienia Ekonomiki Rolnej*, 383(2):1-23, <https://doi.org/10.30858/zer/199950>
- Dimitrovski, D., Marinković, V., Djordjevic, A., & Sthapit, E. (2024). Wellness spa hotel experience: Evidence from spa hotel guests in Serbia. *Tourism Review*, 80(6), 1300–1319. <https://doi.org/10.1108/TR-11-2023-0770>



- Dryglas, D., & Salamaga, M. (2018). Segmentation by push motives in health tourism destinations: A case study of Polish spa resorts. *Journal of Destination Marketing & Management*, 9, 234–246. <https://doi.org/10.1016/j.jdmm.2018.01.008>
- González-Rodríguez, M. R., Díaz-Fernández, M. C., & Pulido-Pavón, N. (2023). Tourist destination competitiveness: An international approach through the travel and tourism competitiveness index. *Tourism Management Perspectives*, 47, 101127. <https://doi.org/10.1016/j.tmp.2023.101127>
- Jiao, X., Chen, J. L., Li, G., & Liu, T. (2025). From tourism demand to destination competitiveness: A spatial spillover perspective. *Tourism Management*, 111, 105236. <https://doi.org/10.1016/j.tourman.2025.105236>
- Knežević, M., Vujko, A., & Borovčanin, D. (2025). Community-Centered Farm-Based Hospitality in Agriculture: Fostering Rural Tourism, Well-Being, and Sustainability. *Agriculture*, 15(15), 1613. <https://doi.org/10.3390/agriculture15151613>
- Pitakaso, R., Khonjun, S., Gonwirat, S., Luesak, P., Jirasirilerd, G., Boonmee, C., Dinkoksung, S., Nanthasamroeng, N., & Srichok, T. (2024). Optimizing safe and sustainable public transit for wellness tourism: Southeast Asian case studies. *Journal of Cleaner Production*, 475, 143656. <https://doi.org/10.1016/j.jclepro.2024.143656>
- Song, H., Jiao, E., Park, S., & Lu, J. (V.). (2023). Sectoral productivity and destination competitiveness. *Annals of Tourism Research*, 103, 103645. <https://doi.org/10.1016/j.annals.2023.103645>
- Szromek, A. R., & Polok, G. (2022). A business model for spa tourism enterprises: Transformation in a period of sustainable change and humanitarian crisis. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(2), 72. <https://doi.org/10.3390/joitmc8020072>
- Tomić, N., & Košić, K. (2020). Developing the Spa Assessment Model (SAM) and its application on the Kopaonik-Jastrebac spa zone (Serbia). *Tourism Management Perspectives*, 36, 100753. <https://doi.org/10.1016/j.tmp.2020.100753>
- Turčinović, M., Vujko, A., Stanišić, N. (2025). Community-led Sustainable Tourism in Rural Areas: Enhancing Wine Tourism Destination Competitiveness and Local Empowerment. *Sustainability (M22)* 2025, 17, 2878. <https://doi.org/10.3390/su17072878> <https://www.mdpi.com/2071-1050/17/7/2878>
- Vujko, A., Arsić, M., & Bojović, R. (2025b). From Local Product to Destination Identity: Leveraging Cave-Aged Cheese for Sustainable Rural Tourism Development. *Agriculture*, 15(11), 1137. <https://doi.org/10.3390/agriculture15111137>
- Vujko, A., Mandić, D., Panić, A., Obradović, M., Obradović, A., Savić, I., & Brdar, I. (2025a). Beyond the Guestroom: Financial and Promotional Dimensions of Eco-Friendly Rural Hospitality in Agricultural Landscapes. *Agriculture*, 15(15), 1610. <https://doi.org/10.3390/agriculture15151610>
- Vizi, I., & Strack, F. (2020). A Lenti termálfürdő vendéglégedettségi vizsgálata a földrajzi térrel összefüggő egészségturisztikai termékfejlesztés stratégiai időszakában [Guest satisfaction surveys of the Lenti Thermal Spa in the strategic period of geo-spatial oriented health tourism product development]. *Földrajzi Közlemények*, 144(1), 79–95. <https://doi.org/10.32643/fk.144.1.6>
- Wong, A. K. F., Li, P., Pan, Y., Xu, J. (B.), & Deng, J. (2024). Investigating resident perceptions of medical tourism in Hainan: An integrative analytical approach. *Tourism Management Perspectives*, 54, 101305. <https://doi.org/10.1016/j.tmp.2024.101305>