

# Tourism Competitiveness Survey Analysis of Serbian Ski Resorts

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**Abstract**—In Serbia as a continental country, the tourism industry relies on city-break, spa and mountain tourism, where ski resorts have primacy during the winter season. Even though the number of tourists has recently increased, the share of domestic tourists remained predominant. It is also noticed that tourists from Serbia eagerly travel abroad, which was so far researched in the context of summer holidays but not in the framework of ski resorts. Therefore, this paper examines the competitiveness of ski resorts in Serbia from the perspective of domestic tourists. A survey was used as a data collection method, covering various competitiveness dimensions. The aim is to recognize the main motives of consumers when choosing a ski resort in Serbia or abroad. The results showed that the choices of Serbian tourists are predominantly shaped by the cost of an offer – of accommodation above all others. They are attentive by estimating the value for money, which is the most common reason to choose a ski resort abroad over a domestic one. The crowd at ski resorts and ski runs appears to be a result of unbalanced accommodation capacities on the one hand and ski infrastructure on the other, which is currently the most notable competitiveness drawback of ski resorts in Serbia.

**Keywords**—Mountain tourism, Serbia, ski resorts, tourism competitiveness.

## I. INTRODUCTION

GLOBALLY speaking, tourism is still a growing industry and among the leading ones [1]. Accordingly, its economic significance is exceptional [2], [3], therefore, the importance of examining the competitiveness of tourist products is highly relevant. This is confirmed by analyses [4]-[6] that highlight the growing trend in destination competitiveness research since 1990. Nevertheless, it is considered that the devotion to the destination competitiveness still does not correspond to its importance and the emphasized need to act for the sake of destination long-term development [4]. This might be why a common definition or set of competitiveness evaluation indicators have still not been adopted [4]. After analysing competitiveness literature, [4] concludes that the meaning of competitiveness is “being in some way superior to competitors” (p.2). The complexity of interpreting competitiveness is such that a particular context requires development of a new or adaption of an old model [7], which exactly is the case with this research in the context of ski resorts and their consumers from Serbia.

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According to oft-cited [8], the competitiveness of a destination comprises the aspect of comparative and competitive advantages. The former represents the given context e.g., altitude, nature attractiveness, presence of cultural heritage, while the latter refers to man-made and adjustable factors such as infrastructure, provision of services and activities, etc. Regarding the overall literature presented in [4], aspects of competitiveness are economic value, the notion of attractiveness, customer satisfaction and sustainability.

Ski tourism competitiveness is specific; therefore, it requires specific measurement indicators [9], [10]. In contrast, studies measuring the competitiveness of ski resorts are rare [5]. In the context of the new ski resorts emergence in countries that can offer lower prices and adapt to the change in needs of tourists in terms of accommodation and ski resort quality, it is necessary to continuously engage in assessing the market and competitiveness of individual locations [2].

In recent years, the number of tourists and overnight stays in Serbia has been increasing. This fact is relevant both at the national level and when observed specifically for the mountain resorts (based on [11]-[15]). The share of domestic tourists decreases in favour of foreign tourists, with a significant difference between the national and mountain resort statistics. Namely, the share of foreign tourists in Serbia in 2019 was approximately 50%, while in mountain centres it was about 20% [15]. This indicates that the competitiveness of ski resorts in Serbia is low in terms of international visitors and competitiveness in terms of domestic tourists might be decreasing. This opens the questions: Do Serbian tourists rather visit ski centres abroad and why?

The research about favourable destinations of Serbian tourists is scarce. The most prominent examples can be traced to the period of 10 years ago (e.g. [16], [17]). The other problem is that they do not examine ski resorts specifically. Alongside the fact that most Serbian tourists travel once a year, preferably to the sea for summer holidays [16], the so far conducted research does not speak about motives of Serbian tourists when choosing a specific ski resort.

The increase in the number of tourists indicates that the tourist development of mountain centres in Serbia is still on an upward trajectory, unlike the general trend in developed countries [2], [18], [19]. Therefore, it is realistic that at some point Serbia and its ski resorts will get to the same stagnation phase. Another global upcoming trend is climate change. The sustainability of ski resorts is increasingly being linked to global warming [20]. The main tourist offer of some mountains in Serbia is during the summer [21], [22], and therefore, they benefit from global warming. But, the

decreasing number of days with snow cover, depth of snow cover and an increasing number of foggy days on Serbian mountains [23], [24] negatively affect the length and the quality of the winter season in local ski resorts. As a result, altitude is becoming an increasingly important factor. Research about the Alpine ski resorts has shown that smaller ones at higher altitude can have significantly higher attendance during the winter season than larger resorts with greater diversity at lower altitude [5]. In Serbia, each ski resort is below 2,000 m altitude, which is not a competitive feature in comparison to Alpine resorts situated up to 3,899 m (Zermatt/Breuil-Cervinia/Valtournenche – Matterhorn). Moreover, [22] shows that the number of tourists has already been affected in the main ski resorts in Serbia. These two trends – reaching the stage of stagnation and climate change – point out the future competitiveness challenges of Serbian ski resorts [25].

Some studies show that the main tourist destinations of Serbian tourists are Montenegro, Greece, and only after them Serbia [16], [26]. Knowing that Serbian tourists travel mostly in summer, these data primarily reflect the preferences during the summer season. However, it remains unclear which are the favourite destinations of Serbian tourists in the winter season, as well as what are their main motives when choosing the destination. Also, the claim that accommodation capacities on Serbian mountains are not sufficient [27] is to be proven after a few years of development in this sector. The aim of this article is to answer these questions in order to better understand the advantages and disadvantages of the Serbian ski resorts, especially when compared to other ski centres visited by tourists from Serbia.

## II. METHODOLOGY

Ski tourism depends on the entire range of mutually interconnected stakeholders [2], [4]. Most of research examines competitiveness from the perspective of service providers, whereas there are far fewer to pay attention to the user's perspective. Methodologically, the purpose of this research is customer-based destination competitiveness measurement for ski resorts because "it is an essential part of the destination analysis to determine the perception of local population and tourists when evaluating tourism attractiveness" [28, p.50].

The advantage of measuring the attitudes of ski resort consumers is in the fact that a visit depends on their satisfaction and preferences. Therefore, the recognition of their preferences is important for shaping the offer by the service providers [1]. Data on consumer preferences are of great importance for policy-making and construction of general infrastructure, which is being regulated at the national level through strategies, spatial plans and other documents. The relevance of consumers' perspective is recognized in studies such as [5], which addresses that certain problems regarding ski resort competitiveness were recognized by tourists but not by managers and operators.

The most mentioned approach in the literature is shaped by Crouch and Ritchie which have several publications on the

subject [3]-[6], [18], [29]. The complexity of dimensions and indicators can go very far. Therefore, simplification is necessary. The usual number of indicators for measuring destination competitiveness is 20 to 30, although some studies reach over 80 indicators while others stay below 10. Neither of the extremes is recommendable because too many indicators may result in low responsiveness caused by respondent boredom and too few can be insufficiently informative [4]. Indicators of dimensions were chosen following the concrete case of Serbian ski resorts and other similar researches such as [2], [18], [30]-[32].

For the sake of balancing between informativeness of the survey and boredom of respondents, the complex set of competitiveness dimensions and indicators was reduced here to about 15 questions. The exact number of questions for each respondent depended on the chosen answer in two questions: those who referred to being visitors of both domestic ski resorts and ski resorts abroad had to answer questions regarding both, while those who were visitors of only domestic or only ski resorts abroad were not offered questions for the category they did not refer to. The other spot of reduction was the question about the ski infrastructure, which was omitted by respondents who visit ski centres primarily for non-skiing activities. The omission of detailed questions for each competitiveness dimension was alleviated by choosing questions with simultaneous indices to several dimensions (Table I).

Some relevant indicators are to be measured only from the perspective of the service providers; therefore they are not taken into account in this research, e.g. destination organization and structure, positioning and branding, information/research and forecasting, crisis management, philosophy/values, vision and leadership. However, the questionnaire was designed so that respondents could comment on these aspects. They could also comment on the other dimensions of competitiveness shown in [4] which were not explicitly included in the questionnaire (e.g. special events, general infrastructure, security and safety, accessibility (distance between accommodation and ski slopes), visitor management, human resource development, environmental management, clear policy, planning, innovation and entrepreneurship, political will, and stakeholder involvement).

The methodology adopted for this research is based on a set of dimensions collected by [4] and the general methodological approach of [1]. The basic element is a questionnaire distributed among visitors of ski resorts via e-mail and Facebook groups dealing with the topic of skiing or similar. However, this study is different concerning the avoidance of the Likert scale. Instead, the questionnaire contained several sections. The first section aimed at collecting basic information about respondents, such as gender, age, place of residence and educational attainment. The role of the second section was to determine whether the respondents visited ski resorts in Serbia and/or abroad, and which ones. The given time-frame was 2015/16-2019/20. Other sections aimed at more ski resort competitiveness oriented questions (Table I).

TABLE I

COMPETITIVENESS DETERMINANTS AND THE CORRESPONDING QUESTIONS	
Competitiveness determinants*	Questions/Choices in the Questionnaire
Market ties	<b>Was the occupancy of accommodation capacities in the ski resort of Serbia a reason to stay in a ski resort abroad?</b>
Tourism-related infrastructure	
Destination preferences	
Carrying capacity	<b>What is the most important factor when choosing a ski resort?</b>
Destination preferences	
Market ties	The ski resort is close to the place of residence
Accessibility	Price
Price competitiveness	Diversity of services and activities
Mix of activities	
Entertainment	
Service excellence	
Natural attractors	Nature attractiveness
Natural attractors	High probability of snow cover
Culture and history	Kindness of the local population
Hospitality	
Service excellence	
Destination perception	
Tourism-related infrastructure	Diversity and capacity of skiing infrastructure
Service excellence	Accommodation in high category hotels (4 or 5 stars)
Hospitality	
Mix of activities	
Entertainment	
Tourism-related infrastructure	
Service excellence	
Destination preferences	<b>What is a primary motive to come to a ski resort?</b>
Destination perception	Skiing and/or other winter sports
Tourism-related infrastructure	Time spent in nature
Natural attractors	
Mix of activities	
Mix of activities	Relaxing in the facilities offered by the hotel
Entertainment	
Tourism-related infrastructure	
Destination preferences	<b>What could play a crucial role in choosing a ski resort?</b>
Destination perception	Length of ski runs
Tourism-related infrastructure	Overall number and ski runs diversity (difficulty levels)
Tourism-related infrastructure	Possibility of Nordic skiing
Mix of activities	
Tourism-related infrastructure	Possibility of snowmaking on ski runs
Tourism-related infrastructure	Facilities and amenities for children
Tourism-related infrastructure	Cable car (an enclosed compartment for transport of skiers)
Tourism-related infrastructure	Ski schools / ski instructors
Tourism-related infrastructure	<b>Is a possibility to visit a cultural heritage a relevant motive in choosing a ski resort?</b>
Culture and history	<b>What is dominant transportation means to the ski resort?</b>
Mix of activities	What is a dominant information source about ski resorts?
Market ties	<b>Costs – which aspect is the most relevant?</b>
Destination marketing	Accommodation affordability/fair prices
Communication channels	
Destination preferences	
Destination perception	
Service excellence	
Price competitiveness	
Destination perception	
Value for money	
Price competitiveness	Transport costs affordability
Destination perception	
Entertainment	Affordability of food, drinks and other amenities not included in the price of accommodation
Shopping	
Price competitiveness	
Destination perception	
Service excellence	Ski pass affordability / fair price
Price competitiveness	
Destination perception	
Value for money	

\* According to [4]

Most of the questions were multiple-choice questions, whereas general questions about respondents (e.g. age, place

of residence) were open-ended questions. The last question was also open-ended, with the purpose of allowing respondents to comment on aspects they find relevant for the competitiveness of the ski resorts that were not tackled throughout the questionnaire. There were 226 respondents to the questionnaire. The results were analysed in two steps: 1) quantitative analysis of collected data, and 2) qualitative analysis of relationships between quantitative categories and answers to open-ended questions.

### III. RESULTS

#### A. Close-Ended Questions

The sample consisted of 226 respondents. Most of them (54.9%) were male, insignificantly less female (42.5%), and the rest chose “Other” or did not reply. The average age of the respondents was 39.5 years, spanning from 19 to 80 years of age. By educational attainment, the majority hold a bachelor or master’s degree (67.3%), significantly less secondary education degree (18.6%), whereas 10.2% were doctorate holders. The remainder chose “Other” or did not respond at all.

The share of respondents that were neither in Serbian ski resorts nor abroad was 2.7%; hence, they were not taken into account and did not influence further results. Out of remaining respondents, 90.7% visited ski resorts in Serbia, whereas 64.6% visited ski resorts abroad. The largest group of respondents visited both ski resorts in Serbia and other countries (58.0%). About one third (32.7%) were guests only in Serbia and significantly less only in ski resorts abroad (6.6%).

Kopaonik is the first choice of respondents who visited ski resorts in Serbia or both in Serbian and abroad. However, the second choice was not the same for those two groups: those who also travelled abroad preferred Stara Planina, whereas exclusive visitors of domestic ski resorts chose Zlatibor. When results from both groups of respondents were accumulated, Kopaonik remained in the first place, followed by Stara Planina and Zlatibor (Fig. 1 (a)). Those who visited resorts both in the country and abroad also show a greater need for change, so the number of resorts per person in this group is larger than in another. The most visited ski resorts abroad are those located in Bulgaria, followed by mountains in Bosnia and Herzegovina, France and Austria, respectively (Fig. 1 (b)).

The respondents were asked to check up to three of the most important aspects when choosing a ski resort. The majority of them pointed out the relevance of price, followed by insignificantly lesser votes for diversity and capacity of ski infrastructure; the third most important aspect was high snowfall probability. When it comes to prices/costs, the majority of the respondents care about accommodation affordability (57.3%). The second-largest concern is the affordability of ski pass (28.6). In contrast, only 10% of them take into serious consideration affordability of food, drinks and other amenities not included in the price of accommodation, and even less (5.0%) indispensable transport costs.

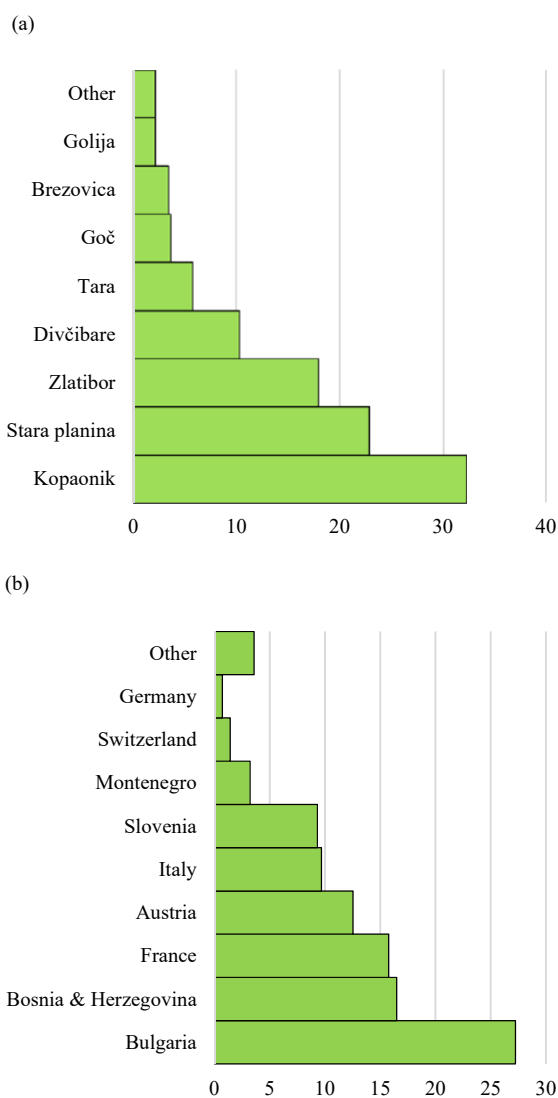


Fig. 1 Respondents' distribution (a) by a ski resort in Serbia (%) and (b) by a foreign country (%)

The large majority of respondents (81.4%) visit ski resorts primarily for skiing and/or other winter sports. Less than 20% (17.3%) see time spent in nature as the main motive, whereas only 1.4% appreciate relaxation in the amenities offered by the hotel such as swimming pool, sauna, gym, restaurant and bar the most. This must be the reason why they care the most about ski infrastructure and not so much about other facilities, amenities and entertainment opportunities. Concerning ski infrastructure, Serbian skiers appreciate the overall number and ski run diversity (difficulty levels) (34.4%) and length of ski runs (27.9%) the most. The possibility of snowmaking on ski runs is somewhat significant (18.6%), whereas cable car (7.0%), facilities and amenities for children (6.4%) and ski schools/ski instructors (4.8%) in a ski resort play an insignificant role. Their interest in Nordic skiing falls flat to 0.9%. Although it does have some role (25.9% of respondents), cultural heritage still does not represent a crucial factor when choosing a ski resort (74.1%).

When asked to point out the least relevant aspects, the respondents put the proximity of ski resort to the place of residence on the top of the list, closely followed by the kindness of the local population. The third least relevant aspect to the respondents was the diversity of services and activities. However, it appears that lack of accommodation capacity was not a reason for the vast majority who travelled abroad to choose a foreign country over Serbia (91.1%). High standard accommodation with provision of diverse amenities appears not to be a relevant factor to Serbian winter tourists: only 10.9% stated that they cared about having the offer of four-star and five-star hotels in ski resorts, while almost 90% declared that it was not a deal-breaker for them.

A strong majority of Serbian winter tourists uses a car as a dominant transportation means between the place of residence and a ski resort (84%). A bus is the second choice (15%). Only one respondent selected plane and none of them chose train. This indicates that, even though the proximity of a ski resort to the place of residence is not checked as a relevant point, the distance of a ski resort plays a relevant role. Although prepared for long-distance driving (over 6 hours), it can be expected that destinations such as the German, Swiss and French Alps have lower chances to be visited by Serbian tourists than eastern parts of the Alps or neighbouring countries.

Finally, the survey showed that the dominant source of information about ski resorts and their offers was the Internet (52.7%). The exchange of information between friends was the secondary source (36.4%), whereas following the offers of travel agencies, and advertisements on the Internet, television and billboards were represented by a negligible 3.2% and 0.9%, respectively. Almost 7.0% of respondents use other sources to get informed when choosing a ski resort.

### B. Open-Ended Questions

The number of narrative responses, which also had informative value, was 46. Only three respondents gave a positive opinion about Serbian ski resort competitiveness; 28 of them elaborated negative aspects, and 15 chose to point out neutral attitudes towards competitiveness indicators from their personal perspective.

The narrative section of the survey showed that advantages of ski resorts in Serbia were the *smaller distance from the place of residence, no roaming for using a mobile phone, satisfying offer of facilities and amenities for children and ski schools*. Therefore, even though similar amenities and facilities are also offered in ski resorts abroad, Serbian tourists will choose a domestic ski resort for its vicinity and practical reasons such as the use of mobile phone providers with no additional costs.

The largest number of suggestions and complaints is related to ski runs, followed by financial aspects, accessibility and accommodation issues. Finally, some respondents highlighted the environmental aspect and showed awareness about climate change challenges. Namely, the majority of respondents consider that lack of ski run diversity and lack of alternatives when it comes to choosing a ski resort in Serbia are the largest

competitiveness drawbacks of ski resorts in the country. Kopaonik is seen as the only relevant ski resort, which makes it crowded. It further implicates a long waiting time at ski lifts and crowded ski runs. The respondents noticed that the overcrowding originates from the construction of new accommodation facilities with no adequate follow-up with other infrastructure. Some of them notice that “nothing has changed for the past eight years” when it comes to investments in ski run quality. However, the lack of infrastructure is not always strictly related to ski runs and ski lifts but also to infrastructure in general. For example, many respondents complained about a severe lack of parking lots, waste collection and disposal. Management in these fields is estimated as weak, resulting in littering and an obvious lack of environmental awareness. The respondents perceive the crowd in the most popular ski resorts in Serbia as “arrogant tourists”.

Affordability complaints were primarily referring to value for money when compared to ski centres abroad. The respondents do not consider that balance between prices and quality offered is adequate – in exchange for a similar amount of money, they can find better ski runs and ski infrastructure in ski resorts in Bulgaria, France, Italy, Austria, etc. The largest number of respondents complained about ski pass price: it is more expensive than abroad. “Too long waiting periods for a rather expensive ski pass, implicates a lower number of descents”. Also, the quality of ski runs does not correspond to the ski pass price. It also happens that the ski pass price remains the same regardless of whether one ski run or all of them are opened. Some of the respondents noticed that local accommodation prices were higher than abroad and costs for parking services and eco-tax (for entering the national park) were expensive. In the opinion of respondents, the competitiveness of ski resorts in Serbia would increase with the introduction of price categories e.g., depending on the number of descends and age of skiers. More affordable prices would attract more visitors.

Accessibility was commented in several aspects. Firstly, some of the respondents showed dissatisfaction with the absence of transportation means between accommodation and ski runs. Secondly, they estimated that roads to the ski resorts were not always cleared from snow. Thirdly, they did not complain but noticed that accommodation close to ski runs is a relevant factor of competitiveness.

Additional aspects, although not very often referred by respondents, are lack of accommodation, hospitality, provision of food in accommodation, a possibility for night skiing, illegal construction and doubt that ski resorts in Serbia will sustain climate change since they are predominantly placed below 2,000 m. They think that the investments are too large for the comparative advantages of mountains in Serbia: “Cable cars in ski resorts under 1,800 m altitude are waste of money”.

#### IV. DISCUSSION AND CONCLUSIONS

A larger share of respondents visited domestic ski resorts than resorts abroad. This difference is about 25% and indicates either that ski resorts in Serbia are competitive or that proximity still plays a role despite the claims of most

respondents that this is one of the least important factors when choosing a holiday destination in mountainous areas. The indifference of skiers towards transportation and closeness to a ski resort seems not to play important role in other examples, too [33]. This ambivalence of competitiveness signs is supported by the following two facts: 1) the share of respondents who visited both domestic and foreign ski resorts is twice as high as those who visited only ski resorts in Serbia and 2) the share of respondents who stayed only in foreign centres is almost five times smaller than of those who were only in domestic ski resorts. It may be concluded that Serbian tourists strive for diversity and tend to examine the market, but mostly within the limits set by the use of a car as the dominant means of transport (up to 5-6 hours of driving). The study [16] also showed that Serbian tourists preferred a car or a bus as transport means during economic crises (2006-2009), which obviously has not changed.

Kopaonik and Stara Planina are the best equipped ski resorts in Serbia regarding ski infrastructure. As such, they are the first choice of respondents who visited both domestic and foreign resorts, which might indicate that those who travel abroad are more experienced skiers and find skiing the primary motive. In contrast, those who visit only Serbian ski resorts might be persons with children or less experienced skiers satisfied with poorer ski infrastructure and less diverse ski runs. This is supported by the narrative section of the survey and the fact that the average number of visited ski resorts per person is higher among individuals who have travelled to foreign resorts. They are most likely a younger population without children and are more flexible regarding location and costs when choosing a skiing destination.

Bulgaria is a convincing “winner” among foreign competitors for Serbian tourists. While the differences between other resorts are small, Bulgaria leads in terms of the share of visits by Serbian tourists with almost 11% when compared to Bosnia and Herzegovina as the runner-up. According to the results of this research, affordability, diversity and capacity of ski infrastructure, and high snowfall probability in ski resorts are the most valued factors by Serbian tourists. Those respondents who explained their motives in more depth stated that ski resorts abroad – primarily in Bulgaria – offer the same or even better ski infrastructure than ski centres in Serbia in exchange for the same or even lower costs. As Bansko and Borovets in Bulgaria have ski runs at 2,500 m [34], snowfall probability is higher than in Serbia where all ski resorts are below that altitude and most of them below 2,000 m. Therefore, the competitiveness of ski resorts in Serbia is defined on the one hand by altitude and climate change as parameters that cannot be influenced at all or almost at all. According to [35], competitiveness of Serbian mountain resorts might be oriented towards all-year-round tourism instead of solely on a winter offer. On the other hand, narrative answers of the respondents stated that the competitiveness depends on the value for money. This indicates that ski resort competitiveness for domestic visitors in Serbia can be increased by a reduction of prices, and rise in the diversity and quality of (ski) infrastructure or both.

Judging by the priorities respondents chose, the greatest effect on competitiveness would be reduction of accommodation costs. Another significant aspect is reduction of the ski pass price, whereas costs of food and beverage do not appear to be relevant. It appears that price plays important role in motivation of Serbian tourists, even though it is generally noted that skiers pertain to a higher income group when compared to summer tourists [4]. Besides this research, price as a predominant factor was also recognised in [16]. Serbian tourists rather give priority to accommodation close to ski runs and offering meals than to the luxurious hotels with a large number of accompanying amenities such as swimming pool, gym or sauna. Similar results were achieved by [33], which contradicts competitiveness battles in other countries where resorts try to make their offer outstanding by introducing alternative activities to skiing [2], [4]. However, [33] stresses that additional amenities are more important for attracting non-skiers.

By improvement of ski infrastructure, domestic tourists consider an increase of ski run length and diversity (difficulty levels) the most relevant factors of competitiveness. For skiers in China [33] or across the Alps [10], the primary decision factors are not totally the same, but they all, including the case of Serbian tourists, coincide with the preference towards ski run diversity and quality (maintenance). Respondents in Serbia unequivocally pointed out that the lack of capacity of Serbian ski resorts does not refer to accommodation but to (ski) infrastructure. The problem is that legal and illegal construction of accommodation capacities is not accompanied by the expansion of ski infrastructure. On the one side, it impacts environmental quality [36], whereas on the other side, the respondents said that it generates crowds and long waiting times at ski lifts and cable cars. This contradicts to the claims that the maintenance of facilities for tourists is crucial for the development of a destination, thus for its competitiveness [2].

The narrative part of the survey showed that tourists in Serbia feel limited in terms of the number of ski resorts in the country. This implies the need for extension of existing or development of new ski resorts. One of the limitations is that most of ski resorts, including the most developed Kopaonik and Stara Planina, are located within protected areas. In addition, Kopaonik has already developed to the extent that negatively impacts natural assets and sustainability [25], [37]. In general, it is not recommended to develop ski resorts in protected areas because of the consequences [38]. On the other hand, sustainability represents one of the leading competitiveness criteria [29], therefore, each decision should be measured from the perception of both advantages and disadvantages, and be integral part of a cautious planning process [18]. The other limitation in expanding existing and developing new ski resorts is climate change, accentuated as a problem when combined with the humble altitude of Serbian mountains. As [2, p. 2] addresses “climate change is a crucial determinant influencing the business performance of low and medium elevation ski resorts”. In general, investments in ski runs must be well thought out because they are costly and oversights could happen easily [2]. Although snowmaking can

mitigate the impacts of climate change, demand for faster snow production increases as temperatures rise and inevitably results in ski run maintenance costs, while accelerating environmental problems [10].

The majority of respondents come to ski resorts for skiing, so visits to cultural and historical heritage does not play a crucial role in the competitiveness of a resort. However, the declining trend of snowfall and snow depth in times of climate change decrease the probability of snow falls and snow cover quality. On the one hand, this demotivates “hard-core” skiers [39], but on the other hand indicates possible growth of cultural and historical heritage as an alternative resource (so to speak replacement of skiing) for tourists. This is especially valid for ski resorts at lower altitudes; such is the case of Serbia [24]. So far, assets additional to skiing have a positive influence on the prolongation of the tourist season into spring and autumn and attracts a wider range of tourists instead of only skiers [5], [18]. However, not only can cultural heritage help in the preservation of ski resorts, but these resorts also support the preservation of cultural heritage [19]. Another study on Serbian mountain resorts [40] accentuates the relevance of diversification of economic activities in municipalities with ski resorts since their success does not only depend on comparative advantages, but also on competitive and created assets. In addition, the results of [40] showed a positive correlation between number of tourists and employment, which coincides with Crouch’s and Ritchie’s definition of competitiveness that puts improvement of high living standard of the local population as a goal [4].

According to the respondents, the aspects that need to be improved are parking, garbage regulation, maintenance of roads and the organization of transport between the accommodation and ski runs. Finally, in line with a study that confirms that a lack of appropriate marketing resulted in a decrease in skier numbers in Canada [18], it was assessed that the marketing for winter tourism is also estimated as inadequate in Serbia [21]. This indicates the importance of knowing the most effective methods to reach the targeted audience; therefore, the fact that domestic tourists in Serbia are predominantly informed by the Internet and by exchanging information with friends, the strategies should be applied to marketing plans for the improvement of ski resort competitiveness.

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#### REFERENCES

- [1] D. Miragaia, D. Conde, and J. Soares, “Measuring Service quality of ski resorts: An approach to identify the consumer profile”, *The Open Sports Sciences Journal*, no. 9, pp. 53-61, 2016.
- [2] L. Botti, O. Goncalves, and N. Peypoch, “Benchmarking Pyrenean ski resorts”, *Journal of Alpine Research | Revue de géographie alpine*, vol. 100-4, pp. 1-12, 2012.
- [3] F. Perna, M. João Custódio, and V. Oliveira, “Tourism destination

- competitiveness: an application model for the south of Portugal versus the Mediterranean region of Spain: COMPETITIVTOUR”, *Tourism & Management Studies*, vol. 14(1), pp. 19-29, 2018.
- [4] M. Abreu-Novais, L. Ruhanen, and C. Arcodia, “Destination competitiveness: what we know, what we know but shouldn’t and what we don’t know but should”, *Current Issues in Tourism*, vol. 19, issue 6, pp. 492-512, 2016.
- [5] Zehrer, E. Smeral, and K. Hallmann, “Destination competitiveness—a comparison of subjective and objective indicators for winter sports areas”, *Journal of Travel Research*, vol. 56(1), pp. 55–66, 2017.
- [6] L. Blanco-Cerradelo, A. Gueimonde-Canto, J. A. Fraiz-Brea, M. I. Dieguez-Castrillon, “Dimensions of destination competitiveness: Analyses of protected areas in Spain”, *Journal of Cleaner Production*, vol. 177, pp. 782-794, 2018.
- [7] M. H. Hanafiah, M. A. Hemdi, and I. Ahmad, “Tourism destination competitiveness: Towards a performance-based approach”, *Tourism Economics*, vol. 22(3), pp. 629-636, 2016.
- [8] M. Porter, “The competitive advantage of nations”, *Harvard Business Review*, no. 68(2), pp. 73-93, 1990.
- [9] G. Goffi, and M. Cucculelli, “Explaining tourism competitiveness in small and medium destinations: the Italian case”, *Current Issues in Tourism*, vol. 22, issue 17, pp. 2109-2139, 2019.
- [10] R. Steiger, and B. Abegg, “Ski areas’ competitiveness in the light of climate change: comparative analysis in the eastern Alps”, in *Tourism in Transitions. Recovering, Decline, Managing Change*, D. K. Müller, and M. Więckowski (eds.), Ch. 11, pp. 187-199, 2018.
- [11] Statistical Office of the Republic of Serbia (SORS), *Municipalities and Regions in the Republic of Serbia, 2016 (Opštine u regionu u Približju Srbiju, 2016.)*, Belgrade: SORS, 2016.
- [12] Statistical Office of the Republic of Serbia (SORS), *Municipalities and Regions in the Republic of Serbia, 2017 (Opštine u regionu u Približju Srbiju, 2017.)*, Belgrade: SORS, 2017.
- [13] Statistical Office of the Republic of Serbia (SORS), *Municipalities and Regions in the Republic of Serbia, 2018 (Opštine u regionu u Približju Srbiju, 2018.)*, Belgrade: SORS, 2018.
- [14] Statistical Office of the Republic of Serbia (SORS), *Municipalities and Regions in the Republic of Serbia, 2019 (Opštine u regionu u Približju Srbiju, 2019.)*, Belgrade: SORS, 2019.
- [15] Statistical Office of the Republic of Serbia (SORS), *Municipalities and Regions in the Republic of Serbia, 2020 (Opštine u regionu u Približju Srbiju, 2020.)*, Belgrade: SORS, 2020.
- [16] M. Najdić, and N. Sekulović, “Behavior of Serbian tourists during economic crisis: two empirical researches”, *TURIZAM*, vol. 16, issue 3, pp. 180-192, 2012.
- [17] M. Petrović-Randelović, and D. Miletic, “(No) Competitiveness and sustainable development of Serbian tourism”, *Procedia - Social and Behavioral Sciences*, vol. 44, pp. 78-87, 2012.
- [18] S. Hudson, B. Ritchie, and S. Timur, “Measuring destination competitiveness: An empirical study of Canadian ski resorts”, *Tourism and Hospitality Planning & Development*, vol. 1(1), pp. 79–94, 2004.
- [19] K. Kuščer, and L. Dwyer, “Determinants of sustainability of ski resorts: do size and altitude matter?”, *European Sport Management Quarterly*, vol. 19, issue 4, pp. 539-559, 2019.
- [20] R. Steiger, D. Scott, B. Abegg, M. Pons, and C. Aall, “A critical review of climate change risk for ski tourism”, *Current Issues in Tourism*, vol. 22, no. 11, pp. 1343-1379, 2019.
- [21] M. Bratić, M. Lesjak, M. Đorđević, M. Đorđević, and A. Radivojević, “Seasonal movements in mountain tourism of Serbia: a review of methods and literature”, *Serbian Journal of Geosciences*, vol. 5, pp. 13-20, 2019.
- [22] R. Stojavljević, S. Božić, M. Kovačević, M. Bubalo Živković, and Đ. Miljković, “Influence of selected climate parameters on tourist traffic of Kopaonik and Zlatibor mountains (Republic of Serbia)”, *Geographica Pannonica*, vol. 20, issue 4, pp. 208–219, Dec. 2016.
- [23] D. S. Djordjevic, V. Secerov, D. Filipovic, B. Lukic, and M. R. Jetic, “The impact of climate change on the planning of mountain tourism development in Serbia: case studies of Kopaonik and Zlatibor”, *Fresenius Environmental Bulletin*, vol. 25, no. 11, pp. 5027-5034, 2016.
- [24] D. Vukočić, S. Milosavljević, I. Panjisevic, and N. Bačević, “Spatial analysis of air temperature and its impact on the sustainable development of mountain tourism in Central and Western Serbia”, *Idojaras* (Budapest, 1905), 122(3), pp. 259-283, Sep. 2018.
- [25] N. Bošković, M. Vujičić, and L. Ristić, “Sustainable tourism development indicators for mountain destinations in the Republic of Serbia”, *Current Issues in Tourism*, vol. 23:22, pp. 2766-2778, 2020.
- [26] S. Kovačić, T. Jovanović, Đ. Miljković, T. Lukić, S. B. Marković, Đ. A. V., M. D. V., and M. Ivkov, “Are Serbian tourists worried? The effect of psychological factors on tourists’ behavior based on the perceived risk”, *Ope Geosci.*, no. 11, pp. 273-287, Apr. 2019.
- [27] M. Podovac, N. Đorđević, and S. Miličević, “Rural tourism in the function of life quality improvement of rural population on Goč Mountain”, *Economics of Agriculture*, year 66, no. 1, pp. 205-220, 2019.
- [28] V. T. Opačić, and A. Banda, “Alternative forms of tourism in mountain tourism destination: a case study of Bjelašnica (Bosnia and Herzegovina)”, *Geographica Pannonica*, vol. 22, issue 1, pp. 40–53, March 2018.
- [29] M. Cucculelli, and G. Goffi, “Does sustainability enhance tourism destination competitiveness? Evidence from the Italian Destinations of Excellence”, *Journal of Cleaner Production*, vol. 111, part B, pp. 370-382, Jan. 2016.
- [30] K. B. Godfrey, “Attributes of destination choice: British skiing in Canada”, *Journal of Vacation Marketing*, vol. 5, issue 1, pp. 18-30, 1999.
- [31] T. J. Dickson, and P. Faulks, “Exploring overseas snowsport participation by Australian skiers and snowboarders”, *Tour Rev*, vol. 62, pp. 7-14, 2007.
- [32] K. Matzler, J. Füller, B. Renzl, S. Herting, and S. Späth, “Customer satisfaction with Alpine ski areas: the moderating effects of personal, situational, and product factors”, *Journal of Travel Research*, vol. 43, issue 4, pp. 403-413, 2008.
- [33] H. Xiaoshan, and L. Jian Ming, “Relationship among travel motivation, satisfaction and revisit intention of skiers: a case study on the tourists of Urumqi Silk Road Ski Resort”, *Administrative Sciences*, no. 10(56), pp. 1-13, Avg. 2020.
- [34] SkiBus, “Skiing offers” (“Ponuda skijanja”), available at: [www.skibus.rs/paketi-skijanje/](http://www.skibus.rs/paketi-skijanje/), 2019.
- [35] S. Milijic, I. Maric, and O. Bakic, “Approach to identification and development of mountain tourism regions and destinations in Serbia with special reference to the Stara Planina Mountain”, *SPATIUM International Review*, no. 22, pp. 19-28, 2010.
- [36] S. Milijic, D. Banicevic, and N. Kronic, “Strategic evaluation of economic feasibility of tourist region development”, *SPATIUM International Review*, no. 19, pp. 56-68, 2008.
- [37] M. Maksin, S. Milijic, N. Kronic, and V. Ristic, “Spatial and sectorial planning support to sustainable territorial and tourism development of protected mountain areas in Serbia”, *SPATIUM International Review*, no. 32, pp. 15-21, 2014.
- [38] M. Pantić, *Demographic change challenges in Serbian mountain areas (Izazovi demografskih promena u planinskim područjima Srbije)*, Belgrade: IAUS, 2019.
- [39] J. Hall, B. O’Mahony, and J. Gayler, “Modelling the relationship between attribute satisfaction, overall satisfaction, and behavioural intentions in Australian ski resorts”, *Journal of Travel & Tourism Marketing*, pp. 1-15, Oct. 2016.
- [40] M. Pantić, and S. Milijic, *Relations Between Mountain Tourism, Demographic Structure and Employment at Local Level in Serbia*, in *Tourism in Function of Development of the Republic of Serbia – Tourism as a Generator of Employment*, D. Cvijanović et al. (eds.), Vrnjačka Banja: University of Kragujevac, pp. 148-164, 2019.