SLOVAK WINTER TOURISM DESTINATIONS: FUTURE PLAYGROUND FOR TOURISTS IN THE CARPATHIANS

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Review
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Abstract
Purpose – Traditional winter tourism destinations in the Alps are facing the transfers of skiers to other destinations, so the western skier market is flattening. Due to the geographical position, the changes in the ski market, and current investments, Slovak winter tourism destinations are in front of challenging task to attract more foreign tourists.
Design –This paper is focused on the analysis of competitiveness of Slovak winter tourism destinations, and it tries to identify the market position of these destinations.
Methodology – The comparative advantages, analysed by the factor analysis, are enriched by the competitive advantages analysis based on the level of destination management and price/ quality ratio and sustainability issues.
Approach – The paper adopts the combination of subjective and objective measures to analyse the competitiveness of Slovak winter tourism destinations.
Findings –Slovakia has the ability to be the future playground for tourists in the Carpathians. In that case, winter tourism destinations will take into account the climate changes, sustainability issues, and will be focused on the whole year-round products.
Originality of the research – The article presents the under-researched area of the Carpathians and uses the combination of subjective and objective measures to access the competitiveness.
Keywords competitiveness, mountain tourism, ski market, Slovakia

INTRODUCTION

The geographical area of the Carpathians is so far under-researched and due to its price competitiveness, special offerings and ease of accessibility (Demiroglu et al. 2015) it has a great potential to attract new tourist markets. Moreover, outbound European markets are not increasing but will be spread over more destinations in the future. It is also foreseeable that the new markets will supply themselves at a regional level (Vanat 2018). The Carpathians have a great potential for tourism, though they are relatively unknown when compared to the Alps (Puczkó et al. 2016). According to the vision of the Strategy for sustainable tourism development of the Carpathians (Carpathian convention 2014), the Carpathians should become a top competitive sustainable tourism destination in Europe, based on its unique natural and cultural heritage. Tourism development in the Carpathians is mainly associated with winter sport tourism, which growth is regarded as an ongoing and given norm (Gössling et al. 2009).

The Carpathian region was established in 1993, includes Slovakia, Hungary, Poland, Romania and Ukraine. The article focuses on Slovakia, where huge investments in ski infrastructure have been made in comparison with other Carpathian countries. Several technological innovations have been introduced to reach the new tourist markets (Lencsésová 2015). The ski resort operators have invested more than 44 million € for modernisation of ski lifts and the installation of snow making systems in the last years (Demiroglu et al. 2015). According to the Slovak Tourism Development Strategy 2020 (Ministry of Transport and Construction of the Slovak Repubic 2013), winter tourism destinations represent major tourist attraction of Slovakia.

Taking into account the above mentioned, especially the unique geographical position in the centre of Europe, the changes in the ski market and current investments in Slovak winter tourism destinations, the aim of the article is to analyse the competitiveness of winter tourism destinations in Slovakia.

1. THEORETICAL BACKGROUND

Tourism destination is a geographical area consisting of all the services and infrastructure necessary for the stay of a specific tourist or tourism segment. Destinations are the competitive units of tourism and are an important part of a tourism product (Bieger 2005). Tourism destinations are classified into several types according to various criteria (Buhalis 2000). The basic typology includes winter, rural, seaside, spa and urban destinations.

A winter tourism destination may be defined as a geographical, economic and social unit consisting of all those firms, organisations, activities, areas and installations which are intended to serve the specific needs of winter sports tourists (Flagestad and Hope 2001). Winter tourism destinations are characterized by a set of specificities. In a lot of winter tourism destinations, tourism is an important economic activity and a significant source of employment, because the development of other sectors of economy, in such a specific nature and area, is limited, even impossible (Lencsésová et al. 2015). Development of tourism in mountain regions has been recognized as one of the most promising alternative livelihood strategies for rural and remote areas (Kruk et al. 2007).

1.1. The competitiveness of winter tourism destinations

Winter tourism is one of the most rapidly growing markets within tourism. Despite the negative effect of global warming, the number of destinations and skiers is increasing constantly (Vanat 2018). In today's competitive environment, success requires orientation for competitiveness (Evren and Kozak 2018).

The competitiveness of tourism destinations has been a subject of study of many authors (Dwyer, Forsyth and Rao 2000; Larry Dwyer and Kim 2003; Pechlaner, Pichler and Herntrei 2012; Ritchie and Crouch 2003; Ritchie 1993; Seetaram, Forsyth and Dwyer 2016). Their competitiveness models have been elaborated mainly upon the comparative advantage (resources available to a destination) and competitive advantage (effective usage of the resources) (Porter 1990). Ritchie and Crouch (2003) created the most

frequently cited concept in tourism. The model is based on five pillars: core resources and attractions, supporting factors and resources, destination planning, policy and development, destination management and limiting factors. Similar to Ritchie and Crouch, Dwyer and Kim (2003) introduced another holistic approach of determinants and indicators that define destination competitiveness. They built on the Ritchie and Crouch (2003) Conceptual model and add the demand perspective to their integrated model of destination competitiveness.

However, the competitiveness of winter tourism destinations has been more neglected in the tourism literature so far. Those few studies focusing on the competitiveness of winter tourism destinations rely mainly on subjective measures and opinions of tourists and stakeholders. Flagestad and Hope (2001) examined the stakeholders' point of view focusing mainly on sustainable strategic success. Hudson, Ritchie and Timur (2004) adapted the general model of destination competitiveness to ski resorts, using a detailed stakeholder questionnaire. Hallmann, Müller and Feiler (2014) examined the demand side destination competitiveness. Their results suggested that, from the tourist's perspective, infrastructure, accessibility, hospitality, mix of activities available within the destination, and the image of the destination are important factors for perceived satisfaction. Moreover, tourists were looking to spend their holidays at a place they consider to be safe. Later Hallmann, Müller and Peters, (2015) extended the measure of competitiveness of winter tourism destinations. They examined the tourists' but also stakeholders' point of view, leading to the fact that the quality and price of accommodation, hotel staff, and information management, but also destination policy and planning indicators significantly influence the competitiveness. Miragaia and Martins (2015) examined the attributes prioritised by tourists when choosing a winter sports destination and their degree of satisfaction with the services. Erbas (2016) used the Competitive Determinance-Performance Analysis to access the competitiveness of Turkish ski resorts. Partel (2018) also relies mainly on consumers' data and indicates top 5 relevant factors of destination choice: the size of ski area and the variety of ski slopes, snow reliability, slope grooming, quality and price of accommodation and ski lift comfort. Moreover, Bausch and Unseld (2018) used a qualitative study based on a Germany-wide online discussion forum. The study focused on people's everyday life during the winter and their linked emotions, travel motives, destination choices and general expectations, in particular with relation to trips to Alpine destinations.

However, as Zehrer, Smeral and Hallmann (2017) indicate, the studies on competitiveness based on interviews or survey of tourists and stakeholders provide only a subjective measures that can be many times a limitation of research. Therefore the combination of objective and subjective measures is welcomed. The objective measures can be derived from different sources of data and thus are relatively easy to define and quantify without the influence of subjective evaluation.

Based on the opinions of the above mentioned authors, the competitiveness of winter tourism destinations is not based only on natural resources, but it also the question of destination management, price/ quality ratio and sustainability. UNWTO (2018) adds that the preconditions for successful winter tourism destination development include an abundance of snowfall and a wide selection of different slopes for all skill levels of

skiers, as well as an attractive design of the destination and the preservation of the natural and cultural landscapes surrounding it.

1.2. A brief history of winter tourism in the Alps and in Slovakia

The growth of winter tourism and the development of many winter tourism destinations in Europe have a long history. The development of tourism in the Alps goes back to the beginning of 19th century (table 1) and was focused on scientific purposes (Weiermair 2004). In the mid-19th century the tourism development was boosted by innovations made by alpine entrepreneurs (Keller 2017). With the improvement of the alpine infrastructure and the ongoing development of the alpine sports, the Alps started to become a winter sport destination.

After reaching a peak during the beginning of the 1990ies, tourism had to face major changes in general and in particular in the Alps. These changes include the demand, as well as the supply side. Tourism offer worldwide multiplied and become ever more easily accessible, which resulted in decreases in the demand, especially for the traditional tourism regions like e.g. Alps (Schuckert et al. 2007).

Table 1: **The evolution of winter tourism destinations in the Alps**

Stages	History matters
Beginning of 19th century	Scientific purposes
from mid 19th century	Mountains became a tourism destination thanks to innovations made by Alpine entrepreneurs
from 1964	Investments in slopes and infrastructure
from 1970	Investments in tourism facilities
from 1980	Loss of the monopoly for winter holidays and changes of preferences of potential visitors
from 1990	Mass tourism reached maturity but new in- and outdoor activities are booming in the niche markets

Source: Proceed according to Weiermair 2004, Keller 2012, Schuckert, Möller, Weiermair 2007.

Nowadays the winter tourism in the Alps is struggling with the climatic changes (Ballarin-Denti et al. 2014). Many efforts are in the revival of summer tourism and thus creating the engagement in all-year-round tourism offer.

Similar evolution path can be found in the area of the Carpathians in Slovakia, where tourism development was connected with the first mountain expeditions with aesthetic and learning intentions (recreation, hiking, climbing) organized during the summer season (Chorvát 2007).

Skiing as a recreational sport was for the first time introduced in Slovakia in the mid-19 the century and rapidly became a commonly enjoyed activity. In the late 19th century the development of mountains as health tourism destinations begun. Due to the unique climate, clinics and medical facilities were built with the aim to heal the respiratory diseases and to regenerate the army during the world wars (Streberová 2013). The

construction of cable cars and chair lifts started in the early 20th century and continued after 1960.

After then, the product and service offer has been wider and the number of visitors has increased. The construction of ski slopes, sport areas, accommodation and restaurant facilities and another tourism infrastructure was realized. Since then, the mountain destinations in Slovakia were considered mainly as winter tourism destinations.

Nowadays the opening of borders and the European integration process have changed conditions of winter tourism destinations both in Western and Central Europe. Both of them were given an opportunity to enter new markets but they also have to face new competitors (Zemla 2008). For instance, customers familiar with the Alps now have other destination to choose from such as […] Slovakia (Vanat 2018). It is a very challenging task for Slovak destinations to compete with the traditional alpine destinations in terms of offer and attracting new visitors.

2. RESEARCH METHODOLOGY

The aim of the article is to analyse the competitiveness of winter tourism destinations in Slovakia. The article tries to find out, whether Slovak winter tourism destinations are able to be an important playground for tourists in the Carpathian region. It adopts the combination of objective and subjective measures of winter tourism destination competitiveness. Based on summary of the literature review the competitiveness of winter tourism destination (WTDc) can be defined as followed (1):

$$WTDc = comparative\ advantage\ (resources) + competitive\ advantage\ (destination\ management, quality\ and\ price\ ) + sustainable\ development \quad (1)$$

The analysis is based on primary and secondary data. The data on resources comprise altitude, vertical drop, the length of cable cars and lifts, length of ski slopes, lift capacity of each winter tourism destination in Slovakia. They are enriched by the technological innovations from the annual reports of ski lift operators and destination management organisations. The level of destination management is examined based on the data of financial resources of each destination management organisation and the level of cooperation based on stakeholders' view. The price/ quality ratio was examined based on The European consumer centre network (2013). The information on sustainability issues are taken from the structured interviews with five managers of selected mountain destinations – High Tatras (Tatranska Lomnica and Strbske Pleso), Jasna-Chopok, Donovaly and Kubinska Hola in the years 2014 – 2018.

In order to analyse the comparative advantages, the factor analysis was used, as it provides a meaningful reduction of data. Before applying the factor analysis, it was necessary to examine the correlation between input variables (altitude, vertical drop, the length of cable cars and lifts, length of ski slopes and lift capacity), by Spearman correlation coefficient (2), which can reach values from the interval <0; 1>. The closer

the value to one, the stronger the correlation is. The correlation is verified with the confidence of 95 % (the significance level α = 0,05). The research results in the correlation matrix of the input variables.

$$r_S = \frac{\sum_1^n (r_i - \bar{r})(s_i - \bar{s})}{\sqrt{\sum_1^n (r_i - \bar{r})^2 \sum_1^n (s_i - \bar{s})^2}} \quad (2)$$

where:
r is the order of sign A,
s is the order of sign B,
n is the sample size .

Then, the suitability of selected variables with Anti-image correlation matrix was evaluated. The values of MSAi statistics (rate of correlation intensity between input variables) are on the diagonal of matrix. If the value of MSAi is close to 1, then the variable is very well explained by other variables.

$$MSA_i = \frac{\sum_{i \neq j}^{p} r_{ij}^2}{\sum_{i \neq j}^{p} r_{ij}^2 + \sum_{i \neq j}^{p} a_{ij}^2} \quad (3)$$

where:
rij is pair correlation coefficient,
aij is partial correlation coefficient.

Based on the results of Spearman correlation coefficient (table 2), the input variables in the factor analysis could be used, because between the variables, there is moderate to strong correlation.

Table 2: **The correlation matrix of input variables**

	Altitude	**Vertical drop**	**Length of cable cars**	**Length of ski slopes**	**Lift capacity**
Altitude	1,000	0,987	0,661	0,771	0,526
Vertical drop	0,987	1,000	0,679	0,785	0,539
Length of cable cars	0,661	0,679	1,000	0,727	0,873
Length of ski slopes	0,771	0,785	0,727	1,000	0,616
Lift capacity	0,526	0,539	0,873	0,616	1,000

Source: Author's own research.

The strong correlation confirms the suitability of the variables for the factor analysis. Except them another important fact can be mentioned. There is a strong correlation between the altitude and the built infrastructure of winter tourism destinations. It means that the winter tourism destinations located in lower altitude have shorter ski slopes, cable cars and less lift capacity. The higher altitude a winter tourism destination has, the longer and more infrastructure is situated there. This partial result is considered as positive, because the altitude affect the weather and climatic conditions in winter tourism destinations.

The suitability of selected variables is evaluated by the Anti-image correlation matrix (table 3). The values of the MSAi statistics (0,839; 0,709; 0,634; 0,727; 0,615) validate the suitability of input variables for their usage in the factor analysis.

Table 3: **The Anti-image Correlation**

	Altitude	**Vertical drop**	**Length of cable cars**	**Length of ski slopes**	**Lift capacity**
Altitude	,839a	,279	-,506	,039	-,815
Vertical drop	,279	,709a	-,586	,294	,114
Length of cable cars	-,506	-,586	,636a	-,817	,215
Length of ski slopes	,039	,294	-,817	,727 a	,291
Lift capacity	-,815	,114	,215	,291	,615 a

Source: Author's own research.

Five input variables are transformed into two components explaining 95 % of changes in the set of winter tourism destinations by applying the factor analysis (table 4). The first component represents length of ski slopes, length of cable cars and lift capacity and the second component represents altitude and vertical drop.

Table 4: **The Explored Variability**

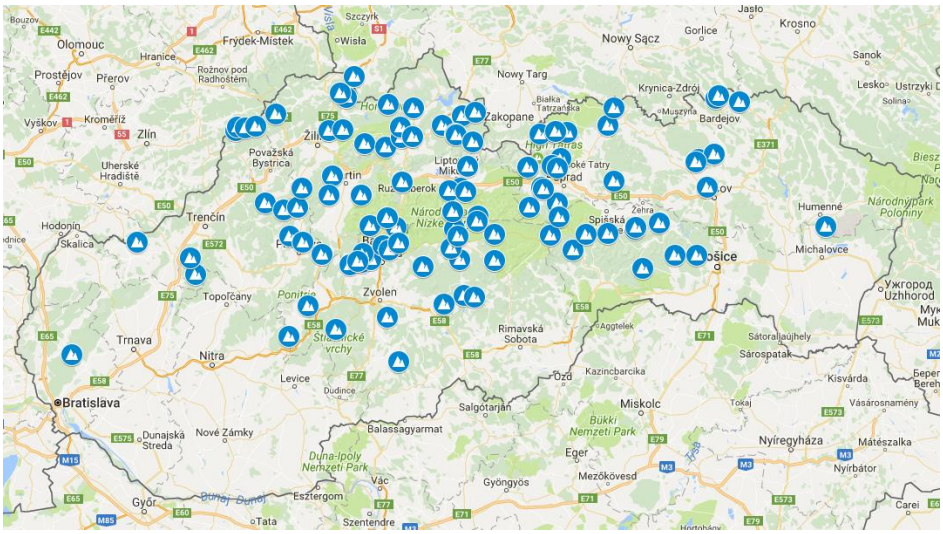
Component	**Initial Eigenvalues**		
	Total	**% of Variance**	**Cumulative %**
1	3,303	82,577	82,577
2	,499	12,470	95,046
3	,166	4,143	98,254
4	,098	,986	99,198
5	,032	,811	100,000

Source: Author's own research.

3. RESULTS AND DISCUSSION

In order to find out the importance of Slovak winter tourism destinations, the analysis of the comparative advantages (characteristic features of Slovak winter tourism destinations), as well as the competitive advantages (destination management, price and quality) and sustainability issues was realised. Together, there are 107 winter tourism destinations in Slovakia (figure 1).

Figure 1: **Localization of Slovak winter tourism destinations**

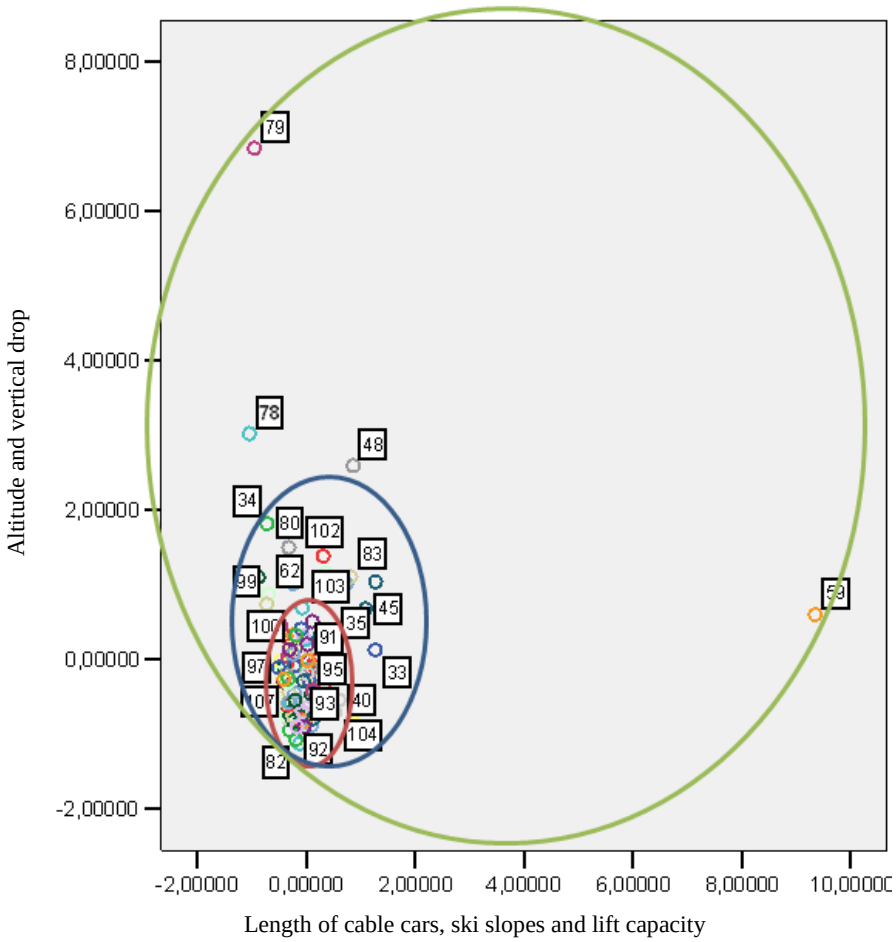


Source: Author's own research.

3.1. Comparative advantages of Slovak winter tourism destinations

The identified 107 winter tourism destinations were classified according to their primary and secondary supply using the factor analysis and presented in the biplot (figure 2). In the primary supply the altitude and vertical drop were used and the data were standardised, while the secondary supply consisted of standardised values of the length of cable cars and lifts, length of ski slopes and lift capacity.

Figure 2: **Primary and secondary supply of winter tourism destinations in Slovakia**



Source: Author's own research.

The figure indicates, that two winter tourism destinations have better characteristics than other Slovak winter tourism destinations. Concerning the altitude and vertical drop (primary supply), the High Tatras (No. 79 – Tatranska Lomica and No. 78 - Strbske Pleso) have the biggest potential to become internationally recognised. It lies in the altitude of 900 – 1,840 m a.s.l with average vertical drop 730 m. Nowadays there is a shift from the traditional product focused on hiking and climatic spa to product more oriented on fun and entertainment in this destination. However, concerning the infrastructure it is the destination Jasna - Chopok (No. 59) which has the longest length of cable cars, ski slopes and the highest lift capacity. It has more than 110 km of groomed ski slopes and lift capacity is 30,294 skiers per hour.

In the last eight years several technological innovations have been implemented in these two winter tourism destinations (table 6). These innovations are mainly focused on extending the winter season or creating the conditions for summer season in order to create all-year-round tourism product. As winter tourism destinations are influenced by the climate changes; these innovations were also focused on the snow reliability. In 2018 both destinations implemented new technology for dynamic pricing of skipasses (flexi prices), in order to manage the number of visitors in the peak season, similar to those in Norway (Haugom and Malasevska 2018).

Table 6: **Implemented innovations in winter tourism destinations High Tatras and Jasna – Chopok**

Innovation	Destination	Year
New parking place (capacity 400 cars)	Jasna - Chopok	2009
New parking place (capacity 350 cars and 10 buses)	High Tatras	2009
Building new ski trails 8,9 ha (6 km)	High Tatras	2009
Extension of children ski park	Jasna - Chopok	2009
6-seater chairlift	Jasna - Chopok	2010
6-seater chairlift	Jasna - Chopok	2011
6-seater chairlift	High Tatras	2011
Gondola lift with cabins for 25 people (Funitel)	Jasna - Chopok	2011
Cable liner - twinliner with the capacity for 50 people	Jasna- Chopok	2011
Building the trails for mountain bikes	High Tatras	2011
Ice skating ring	Jasna - Chopok	2011
Extension of ski trails	Jasna - Chopok	2011
Gondola lift with cabins for 15 people	Jasna - Chopok	2012
Exchange of seats on chairlift	High Tatraas	2012
Gondola lift with cabins for 15 people	High Tatras	2013
6-seater chairlift	Jasna - Chopok	2014
Dynamic pricing of skipasses (flexi prices)	High Tatras and Jasna - Chopok	2018
Extension of artificial snow making system	High Tatras and Jasna - Chopok	constantly

Source: Author's own research.

Moreover, in terms of comparative advantages, there are also other three destination with sufficient primary and secondary supply. They are Veľká Rača, Kubínska Hoľa and Donovaly, destinations with adequate resources. Together with the High Tatras and Jasna-Chopok, these winter tourism destinations have made different investments and now are able to offer infrastructure and services comparable to those in Western Europe.

As Slovakia is located in Central Europe, the comparison of comparative advantages with the neighbouring countries (Czech Republic, Poland and Austria) was made (table 7).

Table 7: **Average values of infrastructure in winter tourism destinations**

Country	Altitude of lowest valley station (masl)	Altitude of highest valley station (masl)	Length of ski slopes (km)	Number of cable cars	Number of chair lifts	Number of T-bar lifts
Czech republic	614,23	819,23	4,18	0,00	1,47	4,14
Poland	513,00	671,25	2,78	0,00	1,33	4,75
Austria	996,93	2014,35	47,25	3,18	5,44	5,12
Slovakia	695,12	946,24	4,87	2,50	1,67	5,64

Source: Authors' own research.

The Slovak winter tourism destinations have the highest average altitude comparing to the Czech Republic and Poland. In Slovakia, there are the longest ski slopes and the infrastructural facilities are at the highest level among this three countries. However, when comparing the conditions to Austria, the destinations in the Austrian Alps have better comparative advantages. Therefore Slovak destinations have to make better use of available resources in order to be more competitive.

3.2. Competitive advantages of Slovak winter tourism destinations

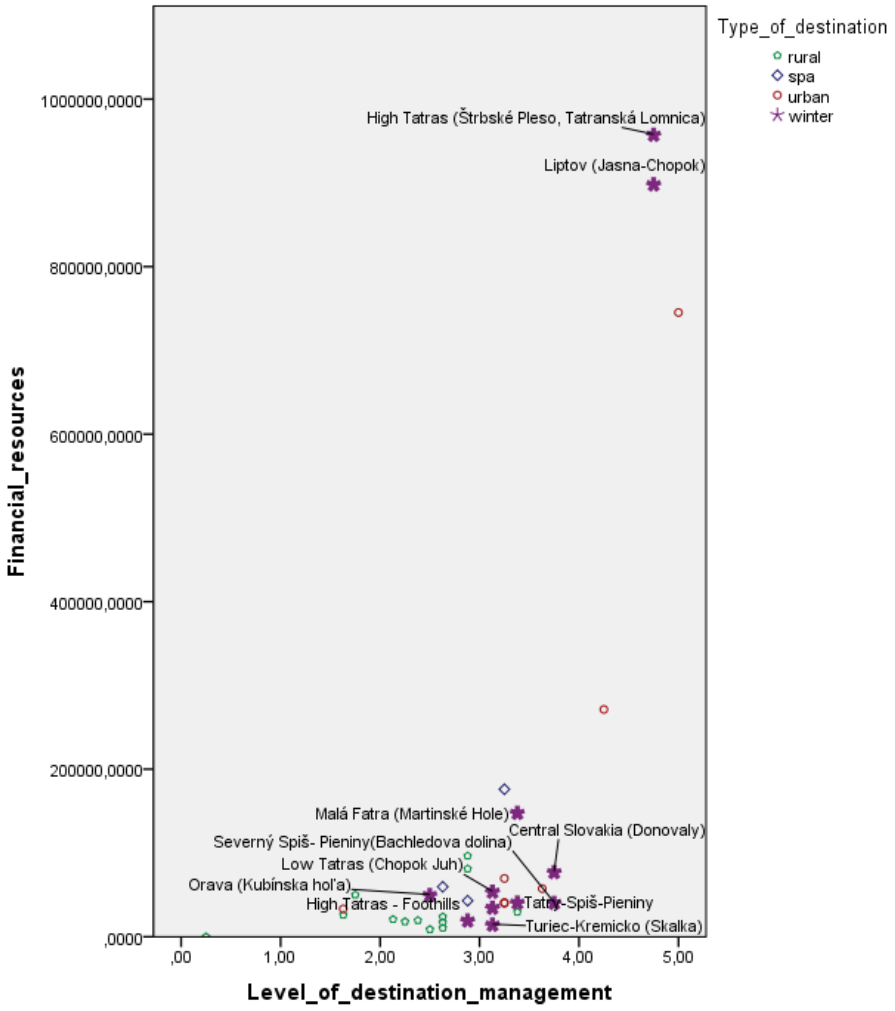
In order to analyse competitive advantages, the destination management and price competitiveness are analysed.

Since 2012, the systematic development of destination management can be observed in Slovakia. The Tourism Support Act no. 91/2010 Coll. established an organisational structure consisting of destination management organisations (DMOs), which are based on the collaborative efforts of stakeholders. The newly established DMOs operate on the territory of rural, spa, urban and winter tourism destinations (Figure 3).

The High Tatras and Jasna-Chopok have the highest level of destination management as well as the highest financial resources for tourism development in Slovakia. These destinations are reachable from the main international airports within two hours by car. In other winter tourism destinations these values are above the average of Slovak destinations, which positively influences their competitiveness. The level of product development in the High Tatras and Jasna-Chopok is comparable to the winter tourism destinations in the Alps. In the High Tatras, the stakeholders cooperate in the development of the destination visitor's card Tatras Card Winter and Tatras Card Summer, through which visitors can enjoy discounts in sports and recreational facilities, cultural and catering facilities, and also free transport by an aqua ski bus. The cooperation can also be seen in the Go Pass card, which is a loyalty program of a private stakeholder (TMR, Inc.), but due to the inclusion of the major tourist attractions in the destination, this card acts as a destination visitor's card. In Jasna-Chopok, stakeholders create the product Liptov Card Winter and Liptov Card Summer. Visitors can benefit from discounts on major attractions in the region. An interesting product of the summer season is the Seven Treasures of Liptov, which uses the elements of geocaching and motivates visitors to get to know the entire region of Liptov. Moreover the product Fresh Track

was introduced, which enables the skiers to taste traditional breakfast in the top of the mountain Chopok and ski on the fresh groomed trails before the official opening.

Figure 3: **The level of destination management in Slovakia**



When dealing with competitive advantage, price competitiveness is also an important factor. The favourable price/quality ratio can increase the competitiveness of destination on ski tourism market (table 8).

Table 8: **Average prices of ski passes in Euro (2013-2017)**

Country	Average price of one day ski pass - child	Average price of one day ski pass - adult	Average price of six days ski pass - child	Average price of six days ski pass - adult
Czech republic	11,90	16,12	57,61	79,63
Poland	16,49	24,14	74,50	80,50
Austria	18,35	27,53	90,38	173,69
Slovakia	13,36	18,89	64,19	91,14

Source: Authors' own research.

The average price for the ski pass in Slovakia is not the lowest one, as in the Czech Republic the price is lower. Comparing the ratio of ski pass prices per one km of ski slopes, Slovakia has the second best value, although not comparable with the Austria (Table 9).

Table 9: **Ratio of ski pass prices for adults per one km of ski slopes (2013-2017)**

Country	Ratio of one day ski pass prise per one km of ski slopes	Ratio of six days ski pass prise per one km of ski slopes
Czech republic	3,86	19,06
Poland	8,68	28,96
Austria	0,75	3,68
Slovakia	3,88	18,72

Source: Based on the data from ECCN.

However the price level of other services (e.g. accommodation, catering) is much lover in Slovakia, than in Austria. This fact is confirmed also by the favourite traveller portal Lonely Planet (2016), that consider Slovak winter tourism destinations as a good travellers' choice. It also adds an example that winter tourism destination Jasna - Chopok "sits on either side of the not-so-low jagged peaks of the Chopok Mountains. With a rapidly developing, well-looked after snow park, five official off-piste zones, cheap food and ridiculously cheap beer, it attracts a go-hard, adventurous crowd. The addition of a lift in 2013 has made both sides of the mountain accessible (including those off-piste areas), so there's 40 km of beginners, intermediate, black and freeride pistes and some 1000 m of vert. Well over half that 40 km is fast, protected and tree-lined: in a word, atmospheric".

The estimated number of skiers in Slovakia is 5,0 mil. In comparison with the alpine countries (Austria – 53 mil., Switzerland – 26 mil., France – 56 mil., Italy – 28 mil.), the demand is not so huge (Vanat 2018). There is a huge potential of skiers from nearby countries (table 10) as the number of national skiers (domestic population participating in skiing) in each country represent a potential demand. Germany is the biggest outbound ski market with a highly developed ski culture and a good consumption rate. Nevertheless, other markets play also an important role. Therefore the Slovak winter tourism destinations should adjust their offer and try to address these markets.

Table 10: **Number of national skiers**

Country	No. of national skiers
Germany	14 606 508
Poland	4 989 895
Russia	3 562 512
Austria	2 959 793
Czech Republic	2 032 584
Ukraine	1 114 330
Hungary	496 974

Source: Vanat 2018.

The developing destination management, as well as the price level, mainly the value for money in accommodation and catering facilities as well as the location of Slovakia in the centre of Europe and improved transport accessibility can boost the competitive advantages of Slovak winter tourism destination and thus to attract new foreign markets.

3.3 Sustainable development

Moreover, to ensure the competitiveness of winter tourism destination, the sustainability issues need to be taken into account, as winter tourism destinations are located mainly in natural environment, which has the character of protected areas. Therefore the managers of the most important winter tourism destinations in Slovakia were asked which factors they take into account during their work.

Table 11: **Sustainable factors that are taken into account by managers**

Innovation factors	Average value (1 – minimum, 5 – maximum)
Environmental condition and sustainable development	4,78
The need to create all-year-round destination	4,37
Carrying capacities of destination	4,31
Climatic changes	4,17
Regional development	3,80
Creation of summer products	3,76
Increasing the employment in the region	2,81

Source: Author's own research.

From the sustainability factors, managers of winter tourism destinations take into account firstly environmental condition and sustainable development. It is connected with the fact that most mountain destinations is located in protected areas, where the further infrastructural development is subject to the assessment of Environmental Impact Analysis – EIA. Managers are also aware of the need to create all-year-round product. However, the winter season still dominates over the summer. Managers of winter tourism destinations take into account also the carrying capacities of destinations. However, it should be noted that these capacities are not quantified based on the criteria taken into account in regional planning, but they are estimated only based on carrying capacities of ski slopes. At the same time, they agree that with the increase in transport capacities, new ski slopes are built, so the physical carrying capacities are not exceeded. However,

they do not consider the environmental capacities that should be the first factor of development. They also agree on the fact, that the new slopes are built only on existing areas, and in terms of tourism they are already developed areas, and not in the new environmental protected areas. The problems of carrying capacities of winter tourism destinations lie in the fact that many managers refer to it as limits that are related to waiting time of skiers for the ski lifts and cable cars and not as the whole range of criteria considered in terms of regional planning.

However, the order of the innovation factors which are taken into account by managers is remarkable. It was expected that with the need of creation of all-year-round destination, the climatic changes and creation of summer products are connected. These factors are taken into account after considering the carrying capacities and regional development. Climate changes cause the pressure to create the attractive products also in the summer season. This situation is also confirmed by many surveys e.g. by (Demiroglu et al. 2015; Falk and Lin 2018) , who on the basis of calculations assume that the average annual temperature will rise by 2 ° C till 2050 and the snow depth in winter sport destinations has decreased by about 5 cm per decade since 1970.

The last factor taken into account during their work is the employment in the region. Due to the fact that tourism in the mountain areas is often the only source of employment, it should be noted that the last rank is insufficient. After the analysis of the role of tourism in winter sport destinations as a factor of job creation, it is then possible to persuade the authorities of state and local governments to ensure support for management of mountain resorts and tourism development in them.

CONCLUSION

The winter tourism destinations in Slovakia, due to their unique nature, play an important role in the tourism development. Progress in transport, development of technology and the changes in consumer behaviour generate changes in the tourism market. Western European ski market is in the stage of the stagnation, leaving a challenging task to other regions. Beside the Alps, the Carpathians are the second largest mountain range in Europe, however many times unknown to tourists from western countries.

Currently, the competitiveness of tourism destinations is more the question of strategies, business models and knowledge. New strategies should include the repositioning of the competitive advantages. Although Slovak winter tourism destinations cannot compete with the altitude, length of ski slopes and infrastructure with the alpine destinations (e.g. in Austria), the increasing level of destination management, prices of accommodation and catering facilities, as well as the inclusion of sustainability issues to decision-making strengthen their competitive advantages. In the area of the Carpathian region, they have the best preconditions to be a future playground for more tourists.

There are managerial implications that the destination management organisations and the ski lift and chairs operators should take into account to be more competitive and to attract more foreign tourists. As winter tourism destinations tend to offer similar product, as such, they should strive to differentiate their product offerings in order to achieve

stronger position on competitive markets. In fact, many winter tourism destinations are currently looking to both specialize and diversify their range of products, having understood that it is possible only through dynamic repositioning based on durable competitive advantages that lead to brand building in the mind-set of potential visitors. These processes can be substantially enhanced by information technologies, with multimedia websites allowing potential visitors allowing potential visitors to get a visual impression of a given mountain destination and to plan and book their stay while enabling the given service providers to track visitors before, during and after their stay to better understand their preferences and travel behaviour (UNWTO 2018).

The offer of the Slovak winter tourism destinations should be not aimed only at the winter season, because of the climate changes, but the managers should try to create an all-year-round destination and to offer also summer products. They have to respect the market trends, mainly the population ageing, and the revolution in digital technologies and create products according to these new trends.

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