

# Segmentation of alpine downhill skiers and snowboarders in mountain protected areas based on motivation factors: a comparison between two skiing areas: Kasprowy Wierch area (TPN, Poland) and Skalnaté Pleso area (TANAP, Slovakia).

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## Introduction and the aim of the study

Comprehensive knowledge about visitor socio-demographic characteristics, combined with visitor motivations and preferences is necessary for successful visitor management in recreational and protected areas (Cessford & Muhar 2003). Visitor profiles based on motivational factors may support design of targeted tourist offer and communication between the management of protected areas and tourists (Konu & Kajala 2012).

The main aim of this study is to segment downhill skiers and snowboarders of two ski resorts located in the Tatra National Parks (TPN in Poland and TANAP in Slovakia) based on visitor motivations.

## Study area and methods

The Tatra Mountains are located in Central Europe at the boarder of Poland and Slovakia. The Tatras are the highest range of the Carpathian Mountains and are protected by two national parks: Tatrzański Park Narodowy (TPN) in Poland and Tatranský Národný Park (TANAP) in Slovakia. Both areas attract large number of tourists. Annual tourist traffic in TPN is estimated at approximately 3 million visitors (Czochoński & Borowiak 2000, TPN, 2016). TANAP does not have systematic visitor monitoring, therefore there are no annual data on visitation levels (Švajda & Šturcel 2005). Both national parks have several designated skiing areas. This paper focuses on two most popular cable car areas: Kasprowy Wierch (Poland) and Skalnaté Pleso (Slovakia).

In order to gain information about the motives for choosing particular skiing destination and socio-demographic visitor profile, in 2014 and 2015 the on-site survey (PAPI technique) among alpine downhill skiers and snowboarders was conducted (N=404). Respondents had possibility of a multiple choice between 22 motivation factors, based on Konu & Kajala (2012), Zdebski (1979) and Winiarski & Zdebski (2008). In the next step, the answers were grouped in 13 categories and segments of visitors were formed using cluster analysis (K-mean cluster analysis, SPSS software).

## Results

Four cluster segments were identified based on motivation factors: 1) sport and ski oriented group, 2) nature and well-being oriented group, 3) fun and entertainment

oriented group and 4) mixed type with multiple motivations. The first group: sport and ski oriented was the largest group in whole research sample (43%). The sport or skiing reasons were important motive in each cluster but in this group it was the only dominant motive, others aspects were not important for this cluster. The second group was nature and well-being oriented segment (28% in whole sample). Contact with the nature and love for the mountains were important for this group as well as rest and well-being (more than 80%). The third group was called: fun and entertainment oriented (14%). Respondents who belong to this group are predominantly motivated by entertainment (91,1%). Motivations such as rest/well-being or sport reason are also important for them as well as being together with own group. The last cluster was called mixed type with multiple motivations (15%). People from this group were mostly motivated by nature experience, love for the mountains as well as rest and well-being or sport reasons. Cognitive reasons, health, entertainment and ambitious were also important for them, but no motivation has a clear dominant role for this group. There is no major difference between general information about the respondents and the cluster type (Table 1).

Table 1. Cluster type among alpine downhill skiers and snowboarders

CLUSTER TYPE among alpine downhill skiers and snowboarders					
		TYPE 1	TYPE 2	TYPE 3	TYPE 4
Cluster characteristics	N = 402 (100%)	43%	28%	14%	15%
	Name of the cluster	sport and ski oriented	nature and well-being oriented	fun and entertainment oriented	mixed type with multiple motivations
	Criteria	dominant motive: sport/skiing – 66.5%, extra motive : ambitious 24.3%	dominant motive: nature experience – 87.4%, love for the mountains – 86.5%, rest/well-being – 81.1%, sport – 87.4%, extra motive: health 56.8%	dominant motive: entertainment 91.1%, rest/well-being 73.7%, sport – 80.4%, extra motive – being with own group – 60.7%	every motives are important for them, a group without main motivations
Information about respondents (the most frequent answers among each cluster)	Research area	KW (49.7%), SP (50.3%)	KW (47.7%), SP (52.3%)	KW (39.3%), SP (60.7%)	KW (54.8%), SP (45.2%)
	Gender	f (34.7%), m (65.3%)	f (51.4%), m (48.6%)	f (50%), m (50%)	f (38.7%), m (61.3%)
	Age	<35 (45.7%), 35-54 (41%), >54 (13.3%)	<35 (38.7%), 35-54 (53.2%), >54 (8.1%)	<35 (46.4%), 35-54 (42.9%), >54 (10.7%)	<35 (51.6%), 35-54 (38.7%), >54 (9.7%)
	Education	higher (70.5%)	higher (78.4%)	higher (76.4%)	higher (62.9%)
	Professional status	administrative workers (44.6%)	administrative workers (42.7%)	administrative workers (52.8%)	administrative workers (40.3%)
	The size of the place of residence	city <100 tys. (36%), city > 500 tys. (34.3%)	city <100 tys. (36.9%), city > 500 tys. (33.3%)	city > 500 tys. (35.7%), village (32.1%)	city > 500 tys. (43.5%), city <100 tys. (32.3%)
	Country of residence (among respondents from Kasprowy Wierch)	Poland (89.5%)	Poland (96.2%)	Poland (95.5%)	Poland (97.1%)
	Country of residence (among respondents from Skalnate Pleso)	Slovakia (64.4%), Poland (17.2%), Czech Republic (9.2%), others (9.2%)	Slovakia (65.5%), Poland (24.1%), Czech Republic (8.6%), others (1.7%)	Slovakia (50%), Poland (20.6%), Czech Republic (26.5%), others (2.9%)	Slovakia (50%), Poland (32.1%), Czech Republic (17.9%), others (4.8%)
	Group size	small group 3-5 (38.7%)	two people (48.6%)	small group 3-5 (47.3%)	small group 3-5 (38.7%)
	Frequency of visits	several times (36.8%), first time (26.9%), once a year (19.3%)	several times (44.1%), first time (15.3%), once a year (22.5%)	several times (28.6%), first time (28.6%), once a year (21.4%)	several times (35.5%), first time (27.4%), once a year (24.2%)
	Length of the stay	3-5 days (27.2%), 1 day (22.5%), 2 days (22.5%)	3-5 days (33.6%), 1 day (20%)	3-5 days (42.9%), 1 day (17.9%), 2 days (17.9%)	3-5 days (37.1%), 2 days (22.6%)

## Conclusions and outlook

Understanding the motivations of alpine downhill skiers and snowboarders is essential for the management of the national parks. The occurrence of a sports factor in each group is understandable due to the character of the respondents. There is large group of visitors interested in physical activity, rather than in nature experience. However, almost 50% of visitors (visitor type 2 and type 4) appreciate contact with nature and mountain scenery. 14% of visitors are fun and entertainment oriented and perhaps could be attracted by other ski resorts.

In future, a comparison with summer tourists, visiting both cable car areas is planned.



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