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Active sport tourism consumption by German private households

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Abstract: Recent studies on the economic dimensions of sport and physical activity in Germany have revealed that sport-related tourism is one of the important contributors to private household consumption. Due to a lack of representative and large-scale data sets, this topic has never been displayed in detail before. By using computer assisted telephone and web interviews, we collected a total data set of $n = 19,396$ persons living in Germany. The expenditures for active sport tourism were isolated, which is understood as travelling to take part in different sporting activities. Data are provided on the overall spending of German households for sport trips, with skiing (€ 3.4 bn) and scuba diving (€ 2.2 bn) being the sports with the highest consumption. We differentiate 71 types of sport and provide data on the most important 20 types. German households undertake 28 million trips each year and spend on average € 460 for each trip. This adds up to € 12.8 bn, which is a significant contribution to the economic dimension of sport. Austria, the Netherlands and Spain are the most important destinations for German households regarding active sport trips. The paper provides useful data to shed further light on the active sport tourism market.

Introduction

Sport is one of the central leisure activities in Western societies. Active sport tourism is one of the fastest rising leisure segments, thus many people spend time and money participating in different sports (Alfs, 2014; IJspeert et al., 2020). Gibson et al. (2018) see that the active sport tourism literature has evolved remarkably within the past ten years, yet not in sport economics. Wicker et al. (2010) highlight that research concerning sport expenditures is incomplete, mainly due to conceptual issues or study designs. Downward et al. (2020, p. 111) closed the gap for “the relationship between the expenditure from, and duration of, same-day visits” in England. Wicker et al. (2010) outline in their study the amount of money that members of German sport clubs spend and by which factors these expenditures are determined. Ahlert et al. (2019) found that 4.2% of total private household spending in Germany in 2016 was for sport-related activities, highlighting the economic relevance of sport and physical activities for the country. Sport is often the motivation for travelling to participate in sporting or other physical activities, a phenomenon that Gibson (1998, 2002) has classified as “active sport tourism”. The present paper contributes to the body of literature on active

sport tourism and aims to shed light on a rather unexplored domain: expenditures of German households for sport-related tourism activities.

Tourism as an interdisciplinary field is closely related to other parts of the economy, such as the hotel and food service industries. Although statistical data on tourism and expenditures are available in great detail, a filter on sport purpose, the kind of sport undertaken, and the distances travelled to actively participate in sport is missing. The lack of research on this subject is astonishing, given that Alfs (2014) demonstrated for Germany that active sport tourism contributed the fourth largest share to sport-related consumption, only topped by the overall expenditures for transportation to and from local sporting activities (practice and competitions), shoes and apparel, and sport equipment. However, from an economic perspective, statistical data regarding sport activities and sport-related consumption have not yet been presented. Given the stated importance of active sport tourism for the economy, this paper aims to close this research gap by providing detailed information on the number as well as selected economic characteristics of Germans engaging in a sport-related journey. We reveal the overall market size for sport tourism in general, as well as the individually analysed consumption categories. The value of this study is a detailed, statistically relevant overview of large data on active sport tourism in Germany, being one of the countries where sport and tourism play important roles.

The central approach of this study is to provide information on the structure, volume and characteristics of active sport tourism for the case of German households. The aim is to contribute a descriptive overview of the consumption for active sport tourism by German private households. We investigate three areas in particular:

- How many active sport-related tourism trips were undertaken by people living in Germany and for which types of sport? The examined data will provide information about the overall activity in German households and the types of sport undertaken. These data are split into domestic versus international trips, and individual versus package tours. Thus, there is value for travel agencies and this can serve as a basis with which to calculate the economic dimension of active sport tourism for the German economy such as for Ahlert et al. (2019).
- What is the amount spent for certain goods purchased on these trips abroad? What overall expenditures were incurred by the trips in Germany and abroad? What is, on average, spent for different types of sport? Which sport causes more trips in relation to those sports practiced without trips? The data provided here are of particular importance for gaining an understanding of the economic dimension of active sport tourism, because it becomes obvious what German households import by purchasing goods and services outside Germany. In national statistics, these data are also not available.
- What were the most popular destinations for active sport tourism? Answering this question will provide an idea about the

economic benefits from active sport tourism outside of Germany. It will also provide some evidence that active sport tourism is also a vehicle for the importation of goods into Germany.

In the present paper, we consider sport consumption as the allocation of resources (mainly accommodation and travel expenses) for a journey, which is undertaken for more than one day, and where participating in sporting or physical activities is the main purpose of the trip. This operationalisation fits to commonly accepted definitions of tourism (Cooper et al., 2005; UNWTO, 2012). German households as a collective of individual persons that permanently stay in Germany, irrespective of their nationality, are considered to allocate private consumption in differentiation to consumption of the state or companies and NGOs. In this regard, expenditures of individuals are measured in this study and extrapolated to the population/all households. While we consider imports (expenditures by German households abroad), we do not consider tourism exports, which are active sport vacations of foreigners visiting Germany (e.g. British citizens skiing in Germany). These would be important to consider when calculating the entire economic importance of sport tourism for Germany. However, our aim here is to show data on active sport tourism of German households in both Germany and abroad. Active sport activity is operationalised as a self-evaluated exercise in at least one of 71 types of sport or sport clusters (e.g. water sports) including most of the types of sport in Germany. This operationalisation, in addition to no limits in frequency of practice results, is a very broad definition of sport and a widespread overview of active sport tourism.

The paper is structured as follows: First, we present the relevant literature on sport tourism with a particular focus on active sport tourism. The methodology of the study is laid out next, followed by the results section, in which we display and briefly discuss the four data fields as presented above. The subsequent section concludes and presents some implications of the results for research and practice. Limitations of our study are stated at the end.

Literature review

Although sport tourism has become an increasingly prevalent topic during the past 25 years, it still lacks a clear conceptual consensus. In a meta-review of research in the field of sport tourism, Weed (2009, p. 625) concludes that “a unified view of sport tourism may be unattainable”, due to even fundamental concepts and assumptions in the field being contested. Among other things, this notion manifests itself in disagreement on the very terminology (e.g. sport tourism vs. sports tourism), but it most clearly becomes obvious in the absence of a uniform definition of sport tourism. Hinch and Higham (2001), as well as Ritchie and Adair (2004), provide a vivid description of the different conceptualisations of the issue. Schwark (2016) offers a

comprehensive account of the different concepts of sport tourism. His approach differs from most others in that he understands sport tourism as something active per se. Earlier definitions that still seem prevalent are those by Gibson (1998) and Standeven and DeKnop (1999). Gammon and Robinson (1997, 2003) contributed to the debate by presenting a distinction between hard and soft sport tourists as well as between sport tourism and tourism sport. Most definitions or conceptualisations emphasise a differentiation between active and passive involvement, a feature that has already been highlighted by Hall (1992, p. 147) when he described sport tourism as “travel to participate in sport and travel to observe sport”. Setting out to take the strengths and weaknesses of former definitions into account, Hinch and Higham (2001, p. 48) define sport tourism as “sport-based travel away from the home environment for a limited time, where sport is characterized by unique rule sets, competition related to physical prowess, and a playful nature”. This definition considers sport tourism as being similar to tourism, whereby someone is travelling away from home for a certain period of time to participate in a touristic pursuit, which in the case of sport tourism is a sport activity. In a later article, however, Hinch and Higham (2005, p. 247) conclude that “the complexity of sport when combined with the complexity of tourism leads to countless diverse variations of the sport tourism phenomenon”. Thus, Weed and Bull (2009) claim that in order to conceptualise sport tourism, it is necessary to understand both sport and tourism.

An appropriate differentiation for our study is provided by Gibson (1998, 2002), who organised the contributions in the field according to three categories: active, event and nostalgia sport tourism research. While the latter concerns visits to sporting stadia or museums and can still be regarded as a niche area, it is the event field that attracted most attention within sport tourism investigations (cf., 2006; 2009). As Getz (2008, p. 412) writes in a review article, “[a] growing number of books are available on the topic of sport tourism [...] and sport events figure prominently in all of them”. The focus on events within sport tourism is so obvious that Deery et al. (2004) raised the questions of whether sport and event tourism are all the same.

The focus of this paper is with the domain of active sport tourism: This refers to travelling to take part in different sporting activities (e.g. skiing, scuba diving, hiking, cycling, golf). Gibson’s (1998) review of the research undertaken up until the late 1990s shows that studies on active sport tourism primarily address socio-demographic features and profiles of active sport tourists (e.g. DeKnop, 1990; Delpy, 1998; Gibson et al., 1998; Glyptis, 1991; Redmond, 1991). Her remark that “research on the active sport tourist is scarce, usually descriptive, and typically atheoretical” (Gibson, 1998, p. 53) seems to still hold true today. Indeed, fifteen years later Tomik (2013) notes that research in this particular field is still scarce. According to Weed (2009), most studies focus on behaviour within the participation of sport tourism, while research on the (economic) effects is rare.

Hinch and Higham (2011) provide a concise overview of research on the active sport tourism market by organising it into different segments (geographic, socio-economic, demographic, psychographic, and behaviouristic). Scholarly publications on the active sport tourist usually focus on particular types of sport, such as golf (Gibson & Pennington-Gray, 2005), mountaineering (Papadimitriou & Gibson, 2008) or skiing (Alexandris et al., 2009). Kaplanidou and Gibson (2010) call for attention to the need to separate active sport tourists into two types: non-event and event, whereby, the latter constitutes travel to take part in organised hallmark or small-scale sport events. However, while visitor expenditure at sport events has been a prominent subject of enquiry during recent decades, the spending behaviour within active sport tourism still leaves much scope for further investigation. The exceptions are the study by et al. (2009) on the expenditures of a cycling network in a particular region in the UK and Downward et al. (2020) about same-day visit expenditures in UK. A few other studies that explore the economic contribution of active sport tourists (e.g. Drakakis et al., 2020; Haydu & Hodges, 2002; Ritchie & Hall, 1999; Shani et al., 2010; Upneja et al., 2001). However, these works only focus on one sport and/or one particular geographic region.

Schwark (2006) reviewed the body of literature on sport tourism in Germany since the 1970s and notes that, both in sport science and in tourism science, the topic has attracted constant attention. It can be assumed that one reason for the low data density is the mentioned conceptual heterogeneity of the field. This is also confirmed in a recent German handbook on sport tourism: Schwark (2016) summarises available surveys on active sport tourism and concludes that, due to conceptual as well as methodical inconsistency in the studies, the quality of data is problematic. Thus, to date, there is a lack of research on the expenses of consumers for active sport holidays at the national level in Germany. Therefore, this paper is the first to present a representative and detailed description of the structure and volume of active sport tourism consumption in Germany, which may provide the basis for future investigations.

Methodology and data collection methods

This paper is based upon data that were collected to determine the economic dimensions of sport consumption of German private households in a research project that was started in 2012 and is ongoing (Ahlert et al, 2019; Preuß et al., 2012). The methods used to assess the expenditures are based on computer-assisted telephone interviewing (CATI), followed by a large-scale Internet survey using computer-assisted web interviewing (CAWI) and subsequent calculations. Our data provide representative information on the sport-related consumption of the German population, based on a total sample of $n = 19,396$, from which we isolated the expenditures for active sport tourism. To do so, we adopted a three-step approach:

Step 1: To detect how many people undertake a trip related to sport and physical activities, we identify the number of individuals that are actively participating, plus the type of sport and the frequency at which it is practiced. This first survey was based on CATI, providing data from about 7,031 individuals. This representative sample was important to gather data for the extrapolation of the number of persons practicing a particular sport.

Step 2: A second survey was conducted by using CAWI of $n = 12,365$ people. Respondents were asked about their active sport-related consumption for trips based on 71 different types of sport and physical activity. The questionnaire was designed as a Web-based application and was administered to the German members of the online panel Research Now®. In this way, we could ensure that we would reach a set minimum number of people for each of the 71 types of sport and physical activity and we surveyed them on their sport tourism expenditures over the 12 months period prior to the survey.

Step 3: In combination of step 1 and 2, a relatively precise calculation of the overall active sport tourism consumption for Germany was possible.

At the beginning of the CAWI questionnaire, respondents had to select their type of sport and physical activity from a list of the 71 previously surveyed activities in the CATI survey. In this way, we ensured that only the sport and physical activities that fit into our definition were evaluated (e.g. walking or gardening were left out). Respondents were then asked the following question about this specific type of sport or physical activity: “Regarding <...> [automatic selection of the type of sport indicated before], how often did you have a sport holiday [*Urlaub* in German] or participated in a training camp away from home during the past 12 months?”.

In the following, we use the word *trip* for a vacation/holiday dedicated to practicing a sport.

Methods used: step 1

To achieve the maximum possible representative sample of the German population, a total of 45,819 CATIs were conducted, resulting in data from about 5,781 individuals (13% response rate). These included data of $n = 780$ children under the age of 16 years, which were collected through their parents, for legal reasons. The sample was drawn using the Rösch Telephone Sample System (RTS) (Rösch, 2009) which provided a regionally representative spread of registered and non-registered landline phone numbers of German households. Households with only mobile phones have not been included in the survey so as to reduce interview dropouts and to ensure a regional representative sample, although it could be assumed that sporty and active people, above the average, tend to ignore the landline services completely. The effects of this method are still limited with a 10% to 15% estimated share of mobile only households in Germany and a representative share of young one-person-households in the sample (Rösch, 2013). Numbers were initially dialled

randomly and participants were sampled from the age of 16 years and upwards, and who were then additionally quoted regarding age, gender, and income. In a last step, the cases of the sample were weighted by representative education and migrant background distributions to ensure representatively collected frequencies of sport activity. It is noteworthy that the number of those people who declined to take part in the survey, due to “having no interest in sport at all” ($n = 1,250$), were considered as not participating in, or following, any form of sport at all and were counted accordingly (resulting in a sample size of $n = 7,031$). In this way, we avoided a bias of surveying only those that are participating or interested in sport in general. Counting their sport-related expenses as € 0 will not fit their real sport-related consumption, but goes along with a conservative study design, in aiming at providing a better estimate of the sport-related consumption. The central aim of step 1 was to detect how many, and at what frequency, people actively participate in the different types of sport and physical activity, including active sport tourism. The frequency of participation in a particular sport is important because the sport-related expenditures, including those for active sport tourism, are influenced by this frequency (Alfs, 2014). Besides this information, socio-demographic and economic data of the respondents were surveyed.

Methods used: step 2

Step 2 aimed at determining the volume as well as the pattern of individual sport-related consumption. By using CAWI, a total of $n = 10,424$ people in three waves, with around 3,500 each wave, took part in the surveys, which were conducted in August 2010, January 2011 and May 2011. The respondents were reminded that only expenditures that were made in Germany in the last 12 months were relevant. Precisely, snow-related sport were placed in a wave that was closer to the previous winter season and water sport in a wave that was closer to the previous summer season. Table 1 shows the number of data sets of consumers undertaking active sport tourism that were collected in the three waves of the CAWI survey.

Table 1

Distribution of the collected data sets within the three waves of the CAWI survey

Wave of the survey	Participants ≥ 16	Participants < 16	Total
1 (August 2010)	340	131	471
2 (January 2011)	411	118	529
3 (May 2011)	322	111	433
Total	1,073	360	1,433

If these data are used to calculate the economic dimension of active sport tourism for the German economy, it is important to distinguish whether goods or services were purchased in Germany or abroad (imported). Therefore, we differentiated sport trips within Germany from sport trips abroad, which provides an interesting insight about the destinations visited by German households.

Table 2 illustrates the differentiation between goods or services purchased in Germany or abroad and shows the consumption categories surveyed for each of the two entities. The consumption categories are based on the Vilnius definition of sport consumption (for more information, see SpEA, 2007). The Vilnius definition is a common list of sport-related consumption categories that are derived from the consumption categories of national accounts, as accepted by all European Union member states in 2007, with the purpose of defining sport statistically and in an economically meaningful way. In a comprehensive approach, more than 400 product categories relevant to sport were identified. The activities can be broken down according to the following differentiations of the concept of sport: (1) Statistical definition: corresponds to NACE code 93.1 "Sport activities"; (2) Narrow definition: includes the statistical definition + all activities which provide inputs to sport, meaning all industries which produce goods that are necessary to perform sport; (3) Broad definition: narrow definition + activities for which sport is an input, such as television broadcasting, hotels accommodating guests doing sport, etc. The definition was agreed upon in the context of the creation of the Sport Satellite Account (Ahlert et al., 2019), which is an endeavour to, in brief, filter the national accounts for sport-relevant activities so as to extract all sport-related value added. More information can be found in European Commission (2013). Money being spent within Germany, be it for vacations and travel to destinations in Germany or abroad (e.g. plane tickets to go to overseas destinations, booking a hotel at the final destination abroad via a German travel agency in Germany) are counted as directly related to the economic dimension of sport tourism for the German economy. However, all

sport-related money spent abroad while on sport-related vacations (e.g. purchasing a lift pass for a skiing resort, kite surfing courses, buying sport shoes and equipment abroad) are not a part of the economic dimension of sport tourism in Germany, as they only stimulated the economy abroad. These data were collected to determine the imports of goods and services into Germany. Thus, we can display a part of the economic importance of German households for foreign destinations and give valuable insights into the amount of sport-related expenditure while travelling, with respect to the Vilnius definition. Expenditures being made in these consumption categories within Germany cannot (for technical reasons) be considered in this analysis, since they count towards general sport-related consumption in Germany and not towards the specific sport tourism-related consumption. From this, it follows that for trips in Germany, with respect to the definition of tourism as well as the Vilnius definition, accommodation and transportation expenses were requested, being the touristic parts of the sport-related consumption. Besides the number of sport trips in 2010 and the destinations, with regards to every trip, it was asked whether it was a package tour (flight, hotel and other services included in a travel package) or a self-organised trip, where expenditures evolved from transportation and accommodation (all services and goods related to the travel are bought and paid for separately). This differentiation was only made for participants ≥ 16 years of age (see Table 3). The questionnaire was designed to enhance answering and remembrance of the amounts spent by the participants. In Germany, it is very common to book package tours, which do not allow to distinguish between separate items, so that one does not know the costs for accommodation and transportation separately. Additionally, it is an interesting result for travel agencies in order to differentiate between package holidays and individual travel arrangements regarding sport.

Table 2
Consumption categories with respect to Vilnius and tourism definitions

Category	Trips in Germany	Trips abroad	Explanation
Transportation	X	X	Individual and public transportation including flights, train tickets and travelling by car as a driver
Accommodation	X	X	Expenditures for all forms of accommodation at the destination
Sport clothes and shoes		X	Expenditures for clothes and shoes spent during trip
Sport equipment		X	Expenditures for equipment spent during trip
Rentals of equipment		X	Expenditures for renting skis, diving equipment, surf boards etc.
Use of facilities		X	Entrance fees and tickets for participating in sport and physical activities (for example: swimming pools, fitness centres, golf courses, ski areas, etc.)
Payments for training		X	Expenditures for personal training and classes, instructional classes, guides, performance diagnostics, etc.

Table 3
Data collected regarding active sport tourism

	Participants ≥ 16 all 71 sports	Participants < 16 only for top 20 sports
	all 71 sports	only for top 20 sports
Sport trips abroad	X	X (not differentiated by country)
Sport trips in Germany	X	X (not differentiated by country)
Package tours in Germany	X	
Package tours abroad	X	

The quality of the self-reported data was tested for retest reliability. Within two weeks after the second wave of the CAWI, exactly the same people were surveyed a second time using exactly the same questionnaire. We tested this by using all types of consumption related to the sport of football. The total sample size for this test was $n = 232$ (131 football players and 101 football fans). The test indicated that there are no significant changes in 38 expenditure categories between test and retest. Another test was implemented to analyse how the consumption patterns (based on 442 categories) and average expenditures differed between the three waves of the CAWI survey over a total time period of 10 months. By comparing the average expenditures on active football in the first and the last wave using t-tests for paired samples, no significant differences in consumption were detected, besides a slight change in the reported spending on football clothing ($T = -2.0$; $p < 0.05$) and transportation costs for using public transport ($T = -2.2$; $p < 0.05$; Preuß et al., 2012, pp. 74-78). These few differences in the expenditures over the three waves can be seen as an indicator for both the high and robust data quality of this study as well as the consistent spending reporting of the football consumers.

The respondents were recruited by panel provider Research Now®, which is one of the biggest consumer panels in Germany and worldwide. They recruited participants with fit to all defined types of sport in different frequencies of practicing and passively consuming sport from a pool of approximately 200,000 members of the online-access-panel living in Germany. The panel members were invited via email and they received a small monetary incentive for their successful and comprehensible participation.

The main advantages of CAWI surveys are that they are cost-efficient, enable quick fieldwork, and are easy to handle for large samples, providing the opportunity to administer retest reliability tests and allow for a

particular quota. This was important, as time constraints do not allow for asking about all consumption data of every sport that an individual will engage in over the year. Additionally, we needed a consumption pattern for all 71 types of sport, even those being practiced only occasionally. Restrictions of representativeness of a panel, even if it is that big, are covered by the study design to match the results of the representative CATI study with the spending surveyed by the panel (see step 3). We individualised our questionnaires to have one for each sport by using an online-tool. Due to the large size of the sample ($n = 10,424$), even consumers of marginal sports were surveyed with a statistically sufficient number of $n > 30$ (Bortz & Schuster, 2010) per type of sport.

However, this procedure also resulted in a few disadvantages and limitations: First, the drawn subsample was only from these 200,000 panel members, who are not representative for the German population. We have to assume that their reporting will be valid with respect to expenditure for types of sport that are categorised by frequency. To reduce socio-demographic biases, we weighted the panels' subsamples of each type of sport by the distribution observed for this type in the more representative CATI survey. Second, we had a lower field quality control, probably with a lower response rate (Heerwegh & Loosveldt, 2008) and the relatively complex questions might have been misunderstood, which was not to be controlled as the questionnaire employed self-completion (Hansen & Pedersen, 2012). Therefore, extended plausibility checks were run on a case-by-case basis to clear up ambiguous specifications that might have been misunderstood (e.g. double/overlapping data regarding transport to training and for trips).

Methods used: step 3

In this step, we multiplied the number of persons undertaking a particular type of sport or physical activity (step 1) with the active sport tourism consumption pattern (step 2). The data generated by the CAWI survey had to be adjusted to the results of the representative CATI survey for the following reason: To calculate the overall active sport tourism expenditures of the German private households, the different consumption patterns calculated in the CAWI survey had to be multiplied by the number of people fitting these consumption patterns. This was performed in the dimensions age (< 16 and ≥ 16 years) and frequency ($> 1x/week$; $> 1x/month$; $> 1x/year$; $< 1x/year$) for active participation in a type of sport, because we hypothesised from our findings that the frequency of undertaking a sport has a relevant impact on the number of active sport trips. A limitation for the group < 16 years is that we collected data only on sport trips from the types of sport that are practiced most often by that group (top 20). Additionally, we did not differentiate between the destinations (i.e. countries) where the trip was made to, which reduces the quality of data regarding information on imports. However, it is acknowledged that sport during sport vacations

may be different from those practiced most often by this group in regular life.

The initial purpose of the collected data was to determine the consumption of sport by German households with respect to the German economy. Therefore, data on consumption of German households abroad were collected in greater detail. It is important to distinguish whether ski equipment was bought during a trip outside Germany (that is, an import) or whether someone bought their ski equipment in Germany: In the latter case, it is irrelevant for the economic effect whether that equipment is used for active sport tourism in Germany or for daily training, for example, by someone living close to a ski resort (which would not be counted as tourism). Thus, we can determine the spending abroad (see Table 2) in greater detail than the consumption of those making a domestic trip.

It is also noteworthy that our results underestimate the economic importance of sport tourism for Germany because we investigated only private household consumption within the country. This means, all expenditures of foreigners undertaking active sport tourism in Germany are not considered, which might be quite high due to famous ski and sailing resorts in the country. In other words, we did not collect data on active sport tourism exports. Therefore, our data can only be used to provide information on the overall economic importance of active sport tourism undertaken by German households, but not to determine the importance of active sport tourism for a particular territory or for Germany as a whole.

Results and discussion

Considering all 71 types of sport, members of German households ≥ 16 years went on approximately 28 million trips in 2010 (there is no information on how many members of a household travel together as individuals were surveyed). With respect to a population of 80 million people, this is an extremely high number of instances of sport-related travel. Germans went on at least 113 million trips in Germany alone in 2010 (Deutscher Tourismusverband, 2011). On average, Germans spent € 460 for each sport-related trip. Thus, German households have spent around € 12.8 bn in 2010.

When differentiated by destination, 16 million active sport trips (approx. 15% of all touristic trips) were made in Germany with an average spending of € 370 per trip. This is nearly exactly the average cost for transport and accommodation of all touristic trips and thus an external validation of our data (€ 375, Deutscher Tourismusverband, 2011). Those travelling abroad add up to 12 million trips, with an average cost of € 580 per trip. Of the active sport tourism trips in Germany, 25% were package tours. Households spent € 340 per package tour trip per person, and € 380 per individually booked trip (75%). Concerning the trips abroad, € 700 was spent per trip when participating in a package tour (29%), while € 530 was spent per individual trip (71%). Package tours

are often more expensive because they often include guidance (e.g. sport guides, instructors), extra trips, insurance, transfer and boarding, etc.

In Germany, as well as abroad, about 72% of Germans booked individual trips that were related to a sport vacation. Many individuals undertake more than one active sport trip per year. While only 38% of all CAWI participants report trips for the one questioned type of sport, they report 2.2 trips on average in 2010. With respect to the representative CATI sample, this number of trips can even be higher by a combination of types of sport of the persons (e.g. skiing and hiking).

Table 4 displays the data diverted into the top twenty types of sport and by individual average expenditures. It is noteworthy that the trips in the tables include trips to training camps, which can be seen as completely different types of active sport tourism to vacation-oriented trips (i.e. volleyball-camp vs. hiking holiday).

Table 4
Top 20 sports by overall spending

No.	Type of sport	Overall expenditures German households	Average expenditure /trip	Number of trips	Share of trips abroad	Share of Package Tours
		in million €	in € (standard deviation)	in million	in %	in %
1	Skiing (alpine and cross country)	3,401	482 (437)	7.06	67	20
2	Scuba diving	2,196	1,048 (2,326)	2.09	58	32
3	Snowboard	1,651	589 (2,346)	2.80	51	36
4	Mountaineering	1,133	498 (574)	2.27	30	12
5	Hiking	1,015	558 (557)	1.82	30	28
6	Cycling	612	358 (303)	1.71	16	26
7	Golf	421	673 (1,104)	0.63	40	48
8	Sailing	348	538 (804)	0.65	60	19
9	Surfing	324	568 (1,164)	0.57	53	23
10	Swimming	241	469 (513)	0.51	27	27
11	Football	237	187 (334)	1.26	16	43
12	Nordic Walking	147	151 (182)	0.97	62	0
13	Volleyball	89	298 (523)	0.32	14	36
14	Equestrian	80	278 (350)	0.15	25	28
15	Bowling	62	535 (187)	0.31	1	6
16	Motorsport	60	202 (743)	0.19	7	34
17	Tennis	50	320 (446)	0.06	0	73
18	Running	48	890 (426)	0.13	33	31
19	Gymnastics	46	369 (85)	0.12	87	11
20	Climbing	45	390 (267)	0.20	53	54

It can be seen that in active sport tourism the expenditures vary greatly between the different types of sport. That is not surprising following Newland and Aicher (2018). It is also obvious that there is also diversity

concerning the share of package tours and trips abroad. Here we can see great differences which are obviously based on the availability of package tours. Tennis, climbing and golf are much more often organised as package tours in comparison to Nordic Walking or mountaineering. The list is largely dominated by individual sports, and in fact no team sport ranks among the top ten. This result is similar to other studies that have investigated sport expenditure in Germany (e.g. Wicker et al., 2010) and therefore another external validation. Skiing is the sport with the highest overall expenditure for sport trips, which is, however, mainly due to the huge number of trips as compared to all other sports. In fact, skiing is only just among the top ten types of sport by individual average expenditures for trips. That list is topped by scuba diving, followed by running and golf. This finding is in line with previous research on active sport tourism for these types of sport in other geographical contexts, which have demonstrated that active scuba diving (e.g. Ditton et al., 2002; Roncin et al., 2008) and golf (e.g. Hennessey et al., 2008; Shani et al., 2010) tourists tend to be in the high-spending category. For the group of participants < 16 years of age, expenditures related to sport trips amount to almost € 600 million. These can be split into € 290 million for active sport tourism and € 310 million for training camps and sport holiday camps.

Tables 5 and 6 show the top ten types of sport and the respective number of trips in year 2010 for domestic and international trips, respectively. With a few exceptions, both lists feature the same types of sport, yet in a slightly different order. Alpine sport (skiing, snowboarding, and mountaineering) are among the most popular sports for both domestic and international sport tourism. The table also shows that several sports are connected to active sport tourism (skiing, snowboarding, scuba diving) while others are, rather, outdoor activities that are undertaken during a trip (swimming, biking). However, biking for example is practiced by many members of German households (column 4) and therefore the total number of those undertaking a biking trip is high (column 2), while their share is low (column 3).

Table 5
Domestic sport tourism – top ten sports in 2010

No.	Type of sport	Number of domestic trips	Average number of active participants doing a trip	Number of active participants	Total money being spent	Average costs per trip
		in million	in %	in million	in € million	in €
1	Skiing	2.30	24	9.40	974	424
2	Mountaineering	1.59	43	3.67	598	375
3	Biking	1.45	11	13.26	456	316
4	Snowboarding	1.38	70	1.98	800	579
5	Hiking	1.27	32	3.99	673	530
6	Football	1.06	20	5.38	208	196
7	Scuba diving	0.88	57	1.54	866	985
8	Swimming	0.37	4	9.07	122	326
9	Golf	0.37	38	0.97	125	334
10	Bowling	0.30	39	0.78	61	201

Table 6
International sport tourism – top ten sports in 2010

No.	Type of sport	Number of foreign trips in million	Average number of active participants doing a trip in %	Number of active participants in million	Total money being spent (in € million)	Average costs per trip in €
1	Skiing	4.77	51	9.40	2,428	509
2	Snowboarding	1.42	72	1.98	851	599
3	Scuba diving	1.22	79	1.54	1,330	1,094
4	Mountaineering	0.68	18	3.67	535	789
5	Hiking	0.55	14	3.99	341	624
6	Sailing	0.38	28	1.36	277	720
7	Surfing	0.30	38	0.80	216	720
8	Biking	0.27	2	13.26	156	588
9	Golf	0.25	26	0.97	296	1,175
10	Football	0.21	4	5.38	29	140

In Table 7 we display the expenses for certain goods purchased on international trips because data are available for those only. The data originally collected to conduct the Satellite Account Sport for Germany needed to identify imports which are goods purchased abroad and not in Germany. Table 7 shows that € 4.4 bn was spent on goods and services abroad. This does not include the costs for the trip, accommodation and food. Therefore, the € 4.4 bn reflect only a part of the monetary streams from German households to other countries (imports). Overall, we note

that in relation to the costs for the trips abroad, sport activity-related expenditures sum up to 63% of the touristic costs.

Table 7
Expenditures abroad during sport trips (imports) in the year 2010

Category of expenditure	Overall expenditures abroad (in € million)
Access to and use of facilities	1,417
Sport clothes and shoes	992
Rentals of equipment	806
Payments for training	669
Payments for equipment	514
Total	4,399

Finally, we evaluated the destinations visited by German households for active sport tourism. Table 8 lists the most popular destinations for international active sport tourism. It shows that more than half (56%) of all sport-related international trips are made to countries neighbouring with Germany, while another 27% are made to destinations within Europe. Austria tops the list by far with 24%, being a prime destination for winter sport and outdoor activities in mountainous regions. These numbers correspond well with the recent results of the Satellite Account Sport for Austria (cf. SpEA, 2019) and can therefore also be seen as external validation of our data set: sport accounts for 4.12% of GDP in Austria, making the country number one among all EU-28 countries. Also, in terms of employment effects Austria is clearly ahead of Germany (4.6%) and the UK (3.8%) with a direct share of 5.6%. According to the study, these high numbers are largely due to the high importance of sport tourism in Austria: 58% of all overnight stays can be classified as sport-relevant. Besides Austria, Spain and Italy are also among the top destinations for active sport tourism. This corresponds to data on general tourism, as all three countries are also among the top five holiday destinations for Germans in general (Statista, 2017).

Table 8
Most popular destinations for international sport tourism

No.	Country of destination	Relative share of total international trips in %	Absolute number (in thousands)
1	Austria	24	1,763
2	Netherlands	10	780
3	Spain	10	763
4	Italy	10	729
5	Egypt	6	475
6	France	5	390
7	Switzerland	5	390
8	Czech Republic	4	322
9	Turkey	4	305
10	Denmark	4	271
11	USA	4	271
12	Other	3	254
13	Croatia	3	220
14	Poland	2	170
15	Belgium	2	153

Conclusion and implications

This study is the first to assess active sport tourism of German households within a holistic perspective, based on a very broad and statistically sound sample. To effect this, we extracted the data regarding active sport tourism from the core data set that was collected to construct the Satellite Account Sport for Germany, including a uniquely extensive selection of types of sport (Ahlert et al., 2019). The data revealed that active sport tourism is most often undertaken within Germany. When going abroad, Austria is the favourite sport destination for German households. This is certainly based on the outdoor sport opportunities that Austria offers. Newland and Aicher (2018) elaborate further that the type of sport has an effect of the destination visited. An implication for other countries that are trying to attract active sport tourists could be to offer sport activities and sport facilities related to the sports that are most often engaged in by German households. However, the destinations of Austria, Netherlands, Spain and Italy alone gather more than 50% of all international trips undertaken by German households.

Our results show that the number of active sport trips is driven by the type of sport. Several sports need specific outdoor locations, some of which can only be practiced during vacation periods (e.g. skiing). Other sports, especially team sports, have specific training requirements concerning their camps, which can be seen in a different consumption

pattern. Finally, the number of those people undertaking a trip also varies, based on the overall number of persons that practice a particular type of sport. For example, biking or swimming have become important sports only due to the large overall number of German households undertaking them.

Most active sport trips were in skiing, which provides the largest sport industry. The overall expenditures for skiing were higher for trips abroad, which can be explained by the higher costs for transportation and a longer duration of the trip on average. Even though we did not include sport equipment and apparel in our calculation, the economic potential of persons that undertake skiing may also have an effect on their consumption. However, it is not skiing but scuba diving, golf and running that proved to be the most expensive sports per trip. One possible explanation for the results of running could be that this group most probably travels to huge city marathons and, thereby, spending large sums of money for those city trips (see also Newland & Aicher, 2018).

Besides their expenditures for transportation, food and beverages, and accommodation, German households spent another € 4.4 bn on sport goods and services when undertaking an international trip. Thus, German households contribute to the economies of many other nations. When we add up the top 10 sports undertaken at international destinations, German households spend € 6.46 bn on their trips. Altogether, the volume of trips, goods and services purchased abroad costs more than € 11 bn per year. However, this amount does not represent the imports effected by German households due to sport-related trips abroad, because the expenditures for transport, accommodation and food and beverages remain, to a large extent, within the German economy.

Our results have implications both for research and practice. The German case can be used as a reference for research in other countries with regards to sport type-specific expenditures and numbers of trips. Implications from our case study are determined by those researchers who are using our findings. Since we have used the Vilnius definition of sport, all other countries in the European Union that also conducted a Satellite Account Sport (e.g. Portugal, 2016; Austria, 2016; UK, 2018) can undertake the same research, which can end in a very interesting comparative study. That would show how much exchange the nations have concerning their households undertaking active sport tourism. Additionally, this can partly fill the gap in knowledge concerning foreign tourists' consumption in the nations.

It is also straightforward to derive management implications based on our results. First, both vacation-oriented sport trips and training camps fit the tourism definition of a stay with at least one overnight stay, and both go together with relevant expenditures. However, they refer to completely different demands of sportspeople and challenges for the travel industry. Second, as 15% of all trips in Germany can be considered as sport related, a recommendation to tourism agencies is to further increase sport activity programmes in their offers. According to Buning and Krohn (2018) even small-scale active sport tourism is business. Further, this high percentage

of sport related trips put emphasis on the findings of Daumann et al. (2015) to use active sport tourism as a chance for city marketing. The wide range of types of sport and their changing popularity should be actively followed and responded to by the tourism industry. We contributed to better understand the demand and spending patterns for different sports (see also Melo & Gomes, 2017). Third, as sportspeople tend, on average, to undertake trips more than one time per year and, presumably, on a regular basis over the years, industry should focus on customer satisfaction procedures and also retention schemes to ensure customer loyalty. Fourth, winter and water sport demands the acquisition of costly equipment. A straightforward implication from our results for tourism agencies, therefore, is to strengthen ties with suppliers of apparel and equipment to capitalise on synergy effects. Last but not least, our data also indicates the economic damage COVID-19 caused for the active sport tourism industry in 2020.

Limitations

The only way to get more detailed data on active sport tourism would be to establish a Satellite Account for that specific purpose, as, similar to sport itself, sport tourism is an interdisciplinary branch which is interwoven with a lot of branches of a national economy (e.g. hotel and food service industries). Notwithstanding, the German case presented in this paper can serve as a stable source for further calculations on the economics of active sport tourism. It is acknowledged here that the displayed results are straightforwardly descriptive, as we do not intend to contribute to theory. Several fields of research remain with which to define and to explain sport-related tourism in detail, e.g. who decides to undertake an active sport trip and why. Another important field is the economic effect and potential of active sport tourism on the different branches involved in sport as well as in tourism (e.g. gastronomy sector and hotel industry) concerning sport-related trips.

This case study provides an overview of a broad range of sport and its corresponding touristic behaviour. To analyse the determinants of individuals undertaking a trip, the determinants influencing the choice of one or several types of sport by a person need to be taken into account (e.g. many socio-demographic aspects) as they will, consequently, conditionally influence the choice of a sport trip.

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