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Bridging outdoor recreation and nature-based tourism in a commercial context: Insights from the Swedish service providers

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ABSTRACT

This paper investigates how outdoor recreation demand is reflected in the commercial tourism supply. We bring together the demand and the supply perspectives as well as the domestic and international dimensions, i.e. linking outdoor recreation with nature-based tourism. The data is collected through a nation-wide survey among nature-based tourism providers, catering to both domestic and international markets in Sweden. Four major data-driven avenues of commercializing outdoor recreation are discussed (*Winter/Nordic, Summer/Active, Summer/Relaxing* and *Extractive*) and further profiled against external variables, such as types of business operations, international markets or seasonality. The findings offer a new insight into the patters of the commercial supply of nature-based tourism in Sweden, while also building on the previous research and history of outdoor recreation. Evident commercial importance and domestic popularity of such ordinary outdoor activities as cycling on roads, swimming, jogging, picnicking or hiking outside mountain areas are linked to changes in leisure and lifestyles noticed previously. Commercialization of outdoor recreation, a snapshot of which is presented in this study, is discussed as an ever-expanding and diversifying process, observed both in Sweden and globally.

Management implications: From a management perspective it is important to know that the provision of nature-based services, specialized equipment and organizing events in nature are the top-selling services by the nature based tourism operators, all of which have been described as important indicators of commodification of outdoor recreation. Important drivers of a new demand are- the observed trends of growing preference for shorter, more intense and high quality holiday,- the growing demand and acceptance of higher accessibility and facility density- the disconnection from nature as a result of changing lifestyle and growing urbanization.

1. Introduction

It has been widely observed that outdoor recreation (OR) is becoming increasingly commercialized (Aasetre & Gundersen, 2012; Bottenburg van & Salome, 2010; Cousins, Evans & Sandler, 2009; Duffy; 2015; Fredman & Heberlein, 2003; Fredman, Lundberg, & Wall Reinius, 2014; Gössling & Hultman, 2006; Keul, 2014; Mosedale, 2015; Sandell & Boman, 2014; Varley & Semple, 2015). Simply put, natural phenomena and activities in nature which were not perceived as a product before or, in other words, were not commodified, increasingly become part of the market (Keul, 2014; Fredman, Wall-Reinius, & Grundén, 2012). Already in the 90s, Wearing and Wearing (1992) noted that even such a simple outdoor activity as jogging was being transformed by the commerce, fashion, technology, media and other businesses into a multi-million dollar industry. There has been a shift away from a simple non-commercial outdoor recreation culture towards a more sophisticated demand-driven commercial sector with new forms of recreation and a prospering outdoor retail industry, spawning myriads of businesses (Buckley, 2000; Backman, Arnegård, & Sandell, 2011; Fredman, Stenseke, & Sandell, 2014).

While much has been written on the changing nature of OR demand, i.e. changing preferences and behavior patterns of recreationists, comparatively less research attention has been paid to the commercial supply of this sector, especially in the Nordic context (Fredman & Tyrväinen, 2010; Lundmark & Müller, 2010). In addition, less research attention has been paid to non-resident outdoor recreationists, i.e. tourists, comparing to the data existing on domestic OR participation (Fredman, Boman, Lundmark, & Mattsson, 2012). The OR demand and supply have rarely been brought together to see how one is reflected in the other. There are several possible reasons for this, e.g. OR occurs both in non-commercial as well as commercial context; the commercial provision of OR caters to both domestic and

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international tourist markets, which already falls into the research domain of nature-based tourism. The concepts of OR and nature-based tourism, contiguous but dissimilar, often stem from different streams of literature and fail to overlap, being scattered throughout various disciplines (Pröbstl & Haider, 2013). The main *aim* of this paper is to bridge these two perspectives in the commercial context. The case of Sweden presents a unique opportunity to successfully do this, since the domestic outdoor recreation is strong enough to be the driving force of the commercial nature-based tourism provision, which is not the case in many parts of the world. *The objectives of this paper are the following: a) to analyze how the demand for OR is reflected in the commercial supply b) to bring the much-needed attention to the structure of nature-based tourism supply by looking at the case of Sweden.*

The modes of engaging in OR in Sweden have also been changing. While OR has traditionally been associated with rather simple and ordinary activities (e.g. hiking, biking, boating), supported by public authorities through investments in infrastructure and popularization of this lifestyle, the more recent development shows significant diversification and specialization of this sector (Backman et al., 2011; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014; Sandell & Sörlin, 2008). On the other hand, Sweden experiences annual growth of international tourist arrivals, with a significant share coming to engage in nature-based activities (Tillväxtverket, 2015a, 2015b), thus stimulating local businesses. In this context, we see an opportunity to bridge the demand and the supply perspectives as well as the domestic and international dimensions of the OR, which is a unique contribution of this study. This approach also sheds more light on the patterns within the nature-based tourism supply, which has not been comprehensively analyzed in Sweden, apart from several studies using relatively small-scale or convenience samples.

2. Literature review

2.1. Defining outdoor recreation and nature-based tourism

Outdoor recreation can simply be defined as leisure recreational activities occurring outdoors in urban and rural environments (Jenkins & Pigram, 2004). The long local tradition of OR, in its Nordic understanding of *friluftsliv* (open-air life), is characterized by simplicity, focusing on being outside in the landscape, with the intention of general well-being and nature experience, without the need for competition (Aasetre & Gundersen, 2012; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014). It is sometimes argued that OR and the Nordic *friluftsliv* are not entirely interchangeable and former does not fully capture the spirit of the latter (Aasetre & Gundersen, 2012; Beery, 2011; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014; Sandell & Sörlin, 2008; Varley & Semple, 2015), while other authors do not differentiate between these concepts (e.g. Wolf-Watz, 2015). According to the survey among the Swedish population, the most typical activities to represent OR are hiking in the mountains or forests, kayaking and bird-watching (Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014). Motorized activities were perceived as the least typical. Even though the non-motorized activities remain at the heart of the OR, the list of activities performed in nature for recreation purposes is growing.

Since the commercial activities in nature are enjoyed not only by the local recreationists but also long-distance travelers, the concept of nature-based tourism (NBT) also needs to be discussed. Recent literature suggests that NBT is a rather broad concept which may include virtually all types of tourist activities as long as they happen in relatively unmodified, undeveloped natural areas, outside one's home environment (Fennel, 2012; Saarinen, 2014). In fact, NBT can include the whole tourism spectrum, ranging from mass tourism, adventure tourism to small scale ecotourism, but narrower definitions also exist (Lundmark & Müller, 2010; Newsome, Moore & Dowling, 2013; Saarinen, 2014; Valentine, 1992; Fennel, 2012). Differences and similarities between the concepts of OR and NBT have been extensively addressed in Emmelin, Fredman, Sandell, and Lisberg Jensen (2010) and Fredman, Lundberg, and Wall Reinius (2014), Fredman, Stenseke, and Sandell (2014) and Fredman, Stenseke, Sandell, and Emmelin (2014).

Even though there has been some critique calling for the abandonment of futile taxonomical and terminological efforts in favour of focusing on the practices and experiences (Weiler, 2012; Buckley & Coghlan, 2012), improving theoretical and conceptual understanding of these phenomena and their boundaries is still important. Multiple OR and NBT typologies have been suggested based on the analysis of both demand and supply, emerging from empirical data as well as conceptual generalizations. Nevertheless, despite multiplicity of definitions, it can be concluded that *friluftsliv,* OR and NBT all converge in the area which includes relatively simple, straightforward and non-competitive recreational activities in nature. By taking the perspective of the supply side, we these concepts together, since the businesses commercially provide their services indiscriminatorily to both domestic recreationists and international tourists. In this paper, the companies commercially providing leisure activities in nature are referred to as 'NBT companies', according to the established terminology (Fredman & Tyrväinen, 2010).

2.2. When outdoor recreation becomes commercial

Commercialization happens when a certain phenomenon becomes a commodity, i.e. is assigned a commodity status and integrated into the market economy. It is a condition under which an object or experience becomes evaluated primarily in terms of its monetary (or symbolic) exchange value (O'Connell, Potter, Curthoys, Dyment, & Cuthbertson, 2005). Gómez Baggethun and Ruiz-Pérez (2011) suggest that commodification process in the context of nature takes place though four main stages: economic framing, monetization, appropriation, and commercialization. Commercialization, therefore, can be understood as the final stage of commodification, when the commodified phenomena become readily available for mass consumption on the market. In other words, we can talk about commercial OR when recreational activities in nature are organized with the help of specialized service providers, involving monetary transactions.

Leisure is commodified when market becomes the main avenue to access leisure resources. Three stages of this process are suggested (Butsch, 1984): the pre-commodity era; the phase of commodification in which leisure participants lose control of the means of 'leisure production'; and the final phase, in which the leisure itself becomes shaped by the demands of the capitalist leisure industry. Within the Marxist tradition, this process has been criticized as yet another way of creating a docile consumer, whose main 'freely chosen' leisure activity is consumption (Butsch, 1984; Rojek, 2005). This may result from e.g. losing the access to the means of participating, i.e. access to the places, knowledge, skills, materials or technology used in a particular activity. This 'deskilling' or 'alienation of leisure' (Butsch, 1984) implies progressive dependence on commodities, transforming leisure participants into consumers. Similar processes have been described in various leisure activities, ranging from music production (Patterson, 1975), adventure (Cloke & Perkins, 2002), mountaineering (Johnston & Edwards, 1994) to hobby airplane modeling (Butsch, 1984). Commodification can be seem in professionalization of various services (an exchange of safety, knowledge and skills for money), growth in marketing and sales of specialized equipment or transformation of backcountry experiences into sports and media-covered spectator events (O'Connell et al., 2005; Sandell & Boman, 2014).

Analyzing commodification of nature through tourism, Cousins et al. (2009) discuss selling nature through particular experiences. There has been an increasing importance of extraordinary experiences, achievement, adventure and physical activity rather than social interaction; male-orientedness and trends towards more specialized, diversified, 'sportified', 'adventurized', 'motorized' and even 'indoorized' recreation (e.g. Bottenburg & Salome, 2010; Fredman & Heberlein, 2003; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014; Jones, Newsome, & Macbeth, 2015; Odden, 2008; Sandell & Boman, 2014).

Commodification, however, is neither irreversible nor unidirectional, and phenomena can move back and forth for from the commodity status (Bakker, 2005; Gómez-Baggethun and Ruiz-Pérez, 2011). What can be a commodity is conditioned by a whole set of cultural norms, conventions and rules within a given society at a given time and, therefore, is subject to change (Gómez-Baggethun and Ruiz-Pérez, 2011). While discussing commercialization trends in OR, we do not, however, fully align with the universalizing arguments, typical for the critique of capitalism. We rather suggest that commodification of recreation should be viewed as being constantly (re)negotiated by actors (NBT businesses and recreationists) in a particular context. In this perspective, most of recreation activities are in one way or another affected by market economy, and the challenge of the researchers is to interpret this emergent variability of market impacts, while grounding it in the local specifics, which we discuss in the next section.

2.3. Trends in outdoor recreation: the Swedish perspectives

In order to better understand how OR activities have developed into commercial products we need to take a look at the past development of OR, which has played a uniquely important role in the Swedish society. This specificity is related to various historical reasons. Urbanization occurred in the Nordic countries relatively recently and the traditions of hunting, fishing, using forest products and directly depending on nature for survival have stayed strong. In addition, Sweden offers uniquely favourable context due to the Right of Public Access (only common to a handful of other countries, primarily, Nordic), which postulates that recreationists have unlimited access to nature and are not confined to designated natural areas or charged any entrance fees. Formulated in 1970s and included in the Swedish Constitution in 1994, this right makes the case of Sweden particularly interesting, since commodification occurs in relatively 'open access' context.

Starting from the societal transformations of the 19th century the issues concerning health, productivity and the division of work and leisure put OR in a new perspective. Many major NGOs were established, e.g. the Swedish Tourism Association and the Association for Promotion of Skiing. These organizations played an important role in socializing generations of citizens into a healthy lifestyle. This is also the time when infrastructure for tourism and travel started to appear, i.e. lookout towers, marked trails, mountain cabins, with the Swedish Tourism Association as a major service provider under the slogan 'Know your country' (Sandell & Sörlin, 2008; Wall-Reinius, 2009).

The development of OR as something good for the people continued throughout much of the 20th century (Sandell & Sörlin, 2008). In 1938 the Swedish parliament passed a law on paid annual leave, while the national politics increasingly focused on leisure and public health, nature protection and the accessibility of recreational landscapes. Participation in OR became the key issue in the emerging welfare society.

Following the end of the WWII, Sweden experienced a strong economic growth and the leisure patterns started to change, moving into a more commercialized context. This was boosted by the technical progress in the outdoor equipment (e.g. plastic, fiberglass, synthetic textiles), pushing the limits of existing activities (e.g. skiing, running, climbing) and creating new ones (e.g. snowmobiling, water scooters, kiting). The number of recreation vehicles or campervans, for example, increased from around 20 000 in 1965 to over 325 000 forty years later (Sandell & Sörlin, 2008). Changes in the demographic composition and lifestyle, increased mobility, urbanization, economic growth and technical development have all contributed to the transformation of what used to be a simple low budget leisure into an outdoor industry. As pointed out by Varley and Semple (2015, p.81):

> There is a forceful commercialization current in outdoor activities, such that new equipment and activity sub-cultures are reified, fetishized and promotes. This may suggest the practice of *friluftsliv* as exclusive, expensive and hard to access, yet the basic philosophy is about simple, basic outdoor life, living comfortably in and with nature.

Growing OR industry has shifted tourism policies from the social issues of recreation towards organizational challenges of destination development, marketing and business sustainability. The market for OR equipment has almost doubled from 1.3 billion Swedish crowns (SEK) in 2001 to SEK 2.3 billion in 2006 (Fredman et al., 2012). A survey of economic values in OR in Sweden shows that the total expenditure in 2009 was close to SEK 100 billion (26% represents transport, 22% - clothing and equipment, 21% - food and restaurants, 20% - lodging and 7% come from purchase of ski passes, guiding, entrance fees etc. (Fredman, Svensson, Lindberg & Holmstedt, 2010). Interestingly, 55% of the expenditure is made outside the 'home region' (up to 100 km away from the respondents' permanent residence), which by definition implies expenditures related to tourism. These numbers not only illustrate the commercial significance of the OR, but also show that a large share of the economic impact is channeled through NBT.

Today, both domestic and international recreation patterns are inevitably linked to larger trends, among which are changes in leisure and employment (Fredman & Heberlein, 2003; Glover & Prideaux, 2008; Odden, 2008; Pröbstl & Haider, 2013; Vorkinn, 2011; Wall-Reinius & Bäck, 2011), changes in demographic composition (Fredman et al., 2012; Wall-Reinius & Bäck, 2011) or advance of the 'experience economy' and change in consumption patterns (Mossberg, 2007; Pine & Gilmore, 1999; Prebensen, Chen & Uysal, 2014). The changing leisure patterns are reflected in the proliferation of the new ways nature is commercialized for recreation as well as growing number of businesses. While in the beginning of the 1990s there were around 150 businesses focusing on providing OR in Sweden, in the late 1990s this number already reached 500 (Ahlström in Sandell and Sörlin (2008)). Lundmark and Müller (2010), in their analysis of the supply of OR activities in Sweden, detected 4862 tourist products marketed online. Our sample already included around 2000 functioning companies (while the real number is likely much higher), which is discussed further.

3. Methods

3.1. Operationalization, questionnaire and measurements

In our paper we define commercial(ized) OR as recreational activities in nature organized with the help of specialized service providers involving monetary transactions. To bring together the demand and supply and show how OR is reflected in the commercial domain we offered the NBT companies to rank the importance of the most typical OR activities. In other words, the commercial significance of various OR activities is measured from the perspective of annual sales of the service providers.

The respondents were presented with a list of 11 types of business operations (Table 1) and 33 outdoor recreation activities (Table 2) available in Sweden. The list representing various types of business operations is based on the existing knowledge regarding the NBT

Table 1
How important are the following business operations for the annual sales of your company? Scale from 1(not important at all) to 5 (very important).

Type of business	Mean	SD	Percentiles				Valid responses (n)
			25	50	75	95	
Guided activities in nature	3.54	1.49	2.00	4.00	5.00	5.00	569
Accommodation	3.33	1.55	2.00	3.00	5.00	5.00	546
Education and group events	3.03	1.42	2.00	3.00	4.00	5.00	547
Organization of tours	2.96	1.52	1.00	3.00	4.00	5.00	538
Provision of information (e.g. tourist visitor center)	2.84	1.46	1.00	3.00	4.00	5.00	536
Rental and sale of equipment	2.71	1.52	1.00	2.00	4.00	5.00	537
Restaurant/café/shop/catering	2.63	1.52	1.00	3.00	4.00	5.00	538
Transportation	2.53	1.45	1.00	2.00	4.00	5.00	530
Organization of festivals and events in nature	2.00	1.25	1.00	1.00	3.00	5.00	527
Agriculture or forestry	1.95	1.39	1.00	1.00	3.00	5.00	532
Commercial fisheries	1.42	0.91	1.00	1.00	1.00	4.00	520

Table 2
How important are the following OR activities for the annual sales of your company? Scale from 1(not important at all) to 5 (very important).

Activities	Mean	SD	Percentiles				Valid responses (n)
			25	50	75	95	
Fishing	2.85	1.57	1.00	3.00	4.00	5.00	534
Kayaking, canoeing, rafting	2.62	1.63	1.00	2.00	4.00	5.00	528
Picnicking	2.59	1.36	1.00	3.00	4.00	5.00	521
Bird and wildlife watching	2.42	1.38	1.00	2.00	3.00	5.00	518
Swimming in lake/sea	2.38	1.44	1.00	2.00	4.00	5.00	521
Camping	2.09	1.39	1.00	1.00	3.00	5.00	519
Hiking outside mountain areas	2.03	1.39	1.00	1.00	3.00	5.00	516
Cycling on roads	1.96	1.26	1.00	1.00	3.00	5.00	513
Horseback riding	1.94	1.47	1.00	1.00	2.00	5.00	526
Hunting	1.91	1.40	1.00	1.00	3.00	5.00	517
Cross or back-country skiing	1.68	1.16	1.00	1.00	2.00	5.00	512
Snowmobiling	1.68	1.26	1.00	1.00	2.00	5.00	516
Mountain biking	1.67	1.11	1.00	1.00	2.00	4.00	510
Dogsledding	1.63	1.26	1.00	1.00	1.00	5.00	515
Snowshoeing	1.59	1.15	1.00	1.00	2.00	5.00	508
Meditation and yoga in nature	1.53	0.99	1.00	1.00	2.00	4.00	506
Motorboating, waterscootering	1.51	1.07	1.00	1.00	1.00	4.00	510
Geocaching	1.50	0.96	1.00	1.00	2.00	4.00	508
Downhill skiing	1.40	0.96	1.00	1.00	1.00	4.00	511
Hiking in the mountains	1.45	1.01	1.00	1.00	1.00	4.00	509
Ice skating	1.40	0.90	1.00	1.00	1.00	4.00	512
Jogging/running in nature	1.48	0.91	1.00	1.00	2.00	4.00	505
Orienteering	1.42	0.86	1.00	1.00	1.00	3.00	506
Rock-climbing, mountaineering	1.38	0.91	1.00	1.00	1.00	3.00	511
Snowboarding	1.36	0.96	1.00	1.00	1.00	3.00	511
Sailing, windsurfing	1.34	0.82	1.00	1.00	1.00	3.00	509
Diving, snorkeling	1.31	0.77	1.00	1.00	1.00	3.00	508
Nordic walking	1.31	0.74	1.00	1.00	1.00	3.00	506
Motorbiking, off-road driving	1.28	0.80	1.00	1.00	1.00	3.00	503
Caving (spelunking)	1.22	0.68	1.00	1.00	1.00	3.00	509
Paintball, outdoor play	1.18	0.62	1.00	1.00	1.00	2.00	503
Water-skiing, wakeboarding	1.18	0.58	1.00	1.00	1.00	2.00	509
Hang-gliding, parachuting, base jumping	1.14	0.56	1.00	1.00	1.00	2.00	502

structure in Sweden as well as statements of the local population regarding the types of recreation services on which they spend their income (Emmelin et al., 2010; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014). The list of OR activities was developed based on the results of several extensive surveys organized in the frames of the pan-Swedish *Outdoor Recreation in Change* project active from 2006 to 2012 (Emmelin et al., 2010; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014), where the general population in Sweden had to rate OR activities they engage in most often. Out of several dozens of activities the top 33 were selected for our study. The standard 5-point Likert scale (ranging from *Not important at all* (1) to *Very important* (5), plus *Don't know* option) was used for the measurements.

3.2. Data collection

Absence of an accepted definition of NBT on the international as well as national level made the task of capturing this sector rather challenging due to the absence of official statistical data and inventories specifically focusing on this sector. Lacking their own standard industrial classification (SIC) codes, NBT businesses are left lurking behind other industrial codes. In our quest for a representative sample of NBT service providers we tested two approaches: a) retrieving businesses from existing databases through identification of the most relevant SIC codes (e.g. *forest management, mixed farming, other sport activities* etc.) and b) creating a new database through obtaining contacts from regional tourist information bureaus.

While the first approach proved unsuccessful (only 7% of the contacted companies confirmed being involved in OR business), the second one yielded desired results. We contacted 308 tourist information bureaus spread out all over Sweden. The bureaus reported companies in their respective region, which provide OR activities commercially (based on the definition proposed by Fredman et al. (2009)). Additionally, websites of the tourist information bureaus, 17 regional tourist organizations and 3 foundations, were used for Supplementary information.

The quality of the obtained database was controlled though the following measures. Websites of NBT companies were checked and owners of non-functioning websites were contacted by phone. Companies which did not correspond to the operationalized definition or were out of business were removed. Supplementary search was implemented via Google, using key words (in Swedish and English) of the most common recreation activities in Sweden identified by Fredman et al. (2012), to account for the companies not registered with their regional tourist information bureaus. As a result, a database of 2060 NBT service providers was collected.

After screenings and follow ups on the phone, the final sample comprised 1821 companies. The survey was administered online (in Swedish) using NETIGATE software in two rounds (May-June 2013 and November-December 2013, to avoid the busy tourist season), after a successful pilot survey with 50 respondents. The respondents had a chance to participate only once and only the non-respondents received the second round of survey invitation. Both the spring and fall survey rounds were followed by three reminders and a non-response bias check by phone. After manually re-checking the data, the final result of the survey comprised 601 valid responses, i.e. 33% response rate.

3.3. Data analysis

The data analysis employs segmentation of OR activities through factor analysis, followed by a clustering procedure (using IBM SPSS 22 software). The company clusters are subsequently profiled against external variables (Amaro, Duarte, & Henriques, 2016; Fuchs & Pikkemaat, 2004; Hair, Andersson, Black, Babin, 2010. Since little information existed about the potential clusters beforehand, the clusters were allowed to emerge in a data-driven procedure, applying a standard two-stage clustering sequence. Hierarchical cluster analysis was run using Ward's method (with squared Euclidian distance), followed by clustering through *k-means* technique on the decided optimum number of clusters.

A typical problem with cluster analysis is reliability. To address this, a common step is to evaluate the contribution of the chosen variables to establish the cluster-derived segments (Fuchs & Pikkemaat, 2004; Hair, Black, Babin & Anderson, 2014). Multivariate discriminant analysis was applied to verify the cluster solutions (Fuchs & Pikkemaat, 2004). To avoid a predictive bias, the sample was randomly split into two halves, where one subsample served the testing purposes (Fuchs & Pikkemaat, 2004). Finally, the clusters are profiled against external variables.

4. Results

4.1. Descriptive overview

Overall, the Swedish NBT is a rather dynamic sector: 43% of the companies diagnosed themselves as stable and mature, 37% - in a growth phase, 6.3% - in start-up, while only 7.7% were in recession and 2.2% - in liquidation phase (the rest did not know). When looking at the year the NBT operation started, we find a rather spread out distribution, including not only young but also stable companies, e.g. 20% of all companies started before 1990. When asked to report the percentage of annual sales coming from NBT, the majority of the companies reported having income from other operations. Only about one fifth of all the responding companies report that 100% of their annual sales in came from NBT. Almost 40% of the companies had less than 50% of their sales from NBT, which tells that NBT is often a complementary business.

Looking at the ranking of business operations importance based on the annual sales of the companies, we see the following picture (Table 1).

Organizing *Guided activities in nature* and providing *Accommodation* are important or very important for half of all the companies. While accommodation *per se* is not part our definition of NBT (Fredman at al., 2009), guided activities as well as organization of group events, tours, provision of information and equipment rentals/ sales all have the potential to qualify a company as being nature-based. Hence, the next step is analyze in more derails OR activities these companies provide in order to better understand the structure of this sector.

The businesses are further dissected based on their supply of OR activities, which present the following picture (Table 2). *Fishing, kayaking, canoeing, rafting* and *picnicking in nature* are on average the most important activities with respect to annual sales. Based on the mean values it can also be assumed that the OR supply is quite diversified, comprised of multiple niche companies.

Table 3
PCA of selected outdoor recreation activities.

	Summer/ Active	Winter/ Nordic	Summer/ Relaxing	Extractive
Kayaking, canoeing, rafting	,776			
Swimming in lake/ sea	,738			
Cycling on roads	,696			
Camping	,676			
Dogsledding		,790		
Snowmobiling		,772		
Cross or back-country skiing		,750		
Bird and wildlife watching			,792	
Picnicking in nature			,756	
Hiking outside mountain areas			,562	
Hunting				,841
Fishing				,754
Crombach's alpha	.74	.75	.63	.64

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 6 iterations.

4.2. Segmentation of outdoor recreation activities

Prior to the factor analysis, standard procedures of data adequacy were implemented. Correlation Matrix revealed that variables were correlated at the significance level of $p < .001$. No correlation coefficient was greater than 0.9. In order to choose the most appropriate variables for the cluster analysis, principal component analysis (PCA) was run on 14 variables with the highest mean value ($M > 1.5$) and high importance for at least 5% of the respondents. The selected activities also represent all the main segments of Swedish OR, i.e. winter, summer, water-based and sport-related activities. Kaiser-Meyer-Olkin measure was 0.80 (very good), Barlett's test was $X^2(66) = 1540,5$ ($p < .001$). All variables had communalities higher than 0.5 and belonged well together semantically (Table 3).

PCA resulted in a four-factor solution for 12 variables, based on the Keiser criterion of eigenvalues, inspection of the scree plot as well as semantic relevance and interpretability (*motorbiking/off-road driving* and *horseback riding* were removed due to insufficient loading on any of the factors). The initial eigenvalues showed that the first factor explained 30% of the variance, the second factor – 17%, the third factor – 9% and the forth – 9%. As a result, 65% of total variance is explained, which is an acceptable explanative power in social sciences (Hair et al., 2014). Reliability test showed sufficiently high Crombach's α (Table 3).

The four-factor solution presents a rather interpretable picture (Table 3). Factor 1 (*kayaking, kanoeing, rafting; swimming in sea/ lake; cycling on roads; camping*) represents summer activities involving physical challenge and active lifestyle. Factor 2 (*dogsledding, snowmobiling; cross or back-country skiing*) represents the typical activities related to winter and north. Factor 3 (*bird and wildlife watching; picnicking in nature, hiking outside mountain areas*) reflects relaxation-oriented summer activities. Finally, Factor 4 represents extractive activities (*hunting* and *fishing*). Even though there are only two items loaded on the last factor, it is retained as an exception, due to its high importance for the research area (Raubenheimer, 2004). Extractive activities are rather unique and are expected to represent a stand-alone segment of NBT.

Table 4
Cluster analysis of NBT companies.

	Winter/Nordic (n=66)	Extractive (n=101)	Summer/Active (n=143)	Summer/Relaxing (n=157)	F	Sig.
Hunting	−.49	1.08	−.57	−.51	452.74	.000
Kayaking, canoeing, rafting	−.23	−.22	1.35	−.11	271.16	.000
Dogsledding	1.11	−.82	−.57	−.68	476.20	.000
Bird and wildlife watching	−.36	−.07	−.22	1.30	324.77	.000

4.3. Segmentation of nature-based tourism companies

In a data-driven segmentation through cluster analysis, raw variables are highly preferred to the pre-processed ones, such as factor scores (Arabie & Hubert, 1994; Dolnicar & Grün, 2008, 2011). Therefore, we chose four variables with the highest loading on each factor, i.e. *kayaking, kanoeing, rafting; dogsledding; bird and wildlife watching* and *hunting*). Four-cluster non-hierarchical solution suggests that NBT companies (n=467) can be well clustered around 4 main type of OR activities, i.e. *Winter/Nordic, Extractive*, *Summer/Active* and *Summer/Relaxing*, which suggests that these are rather distinct company profiles on the NBT market (Table 4).

Multivariate discriminant analysis on a random subsample (n=292) extracted three statistically significant discriminant functions with *Eigenvalues* of 4.4, 2.6 and 1.9; *Canonical Correlations* of 0.9, 0.8; and 0.8, and the *Wilk's Lambda* of 0.1, 0.9 and 0.3 respectively. *Classification results* show that 99% of original grouped cases have been correctly classified. This is a highly satisfactory result concerning the amount of information extracted from the activity variables as well as the reliability of clusters.

4.4. Profiling the nature-based tourism clusters with external variables

Having segmented the NBT companies we look if these clusters differ in terms of various parameters of NBT sector, such as business operations, sales, seasonality, and markets.

4.4.1. Business operations

One way ANOVA results (Table 5) suggest that *Guided activities in nature* is primarily important for the Winter/Nordic cluster (M=4,46), followed by Summer/Relaxing (M=3,85). *Rental and sale of equipment* is important for Summer/Active cluster (M=3,63). *Accommodation* is primarily important by Extractive cluster (M=4,21), followed by Winter/Nordic (M=3,82). Finally, *Organization of tours* is primarily important for Winter/Nordic cluster (M=3,58). Post hoc tests (Bonferroni) show significant differences ($p < .05$) found between all the pairs of compared clusters save for few exceptions (e.g. regarding *Organization of tours* the significant difference lies only between Winter/Nordic and Extractive clusters).

Table 5
Differences between clusters based on the importance of operation types.

	df	F	Sig.
Guided activities in nature	3, 442	15,191	,000
Rental and sale of equipment	3, 434	27,068	,000
Accommodation	3, 435	15,031	,000
Organization of tours	3, 433	3,435	,017

4.4.2. Sales

The total annual sales of the companies (including NBT and other operations) is SEK1.9 million (SD = 4568287) on average. It is obvious that the data is heavily positively skewed, which is not surprising since the tourism sector is known to be dominated by small and medium enterprises (Ateljevic & Page, 2009). Kruskall-Wallis test showed significant difference among the four clusters, X^2=13.103, $p < .05$ for total sales. Planned comparisons using the Kruskal-Wallis test ($p < .05$) suggested that the difference lies between *Winter/Nordic* and *Extractive* clusters (higher than average sales) vis-à-vis *Summer/Active* and *Summer/Relaxing* (both lower than average).

4.4.3. Seasonality

The summer months (June, July, August, September) are the highest ranked overall ($M > 4$), as expected from the nature of the majority of activities. When grouping the months into summer (May, June, July, August, September) and winter (October, November, December, January, February, March, April) seasons, we see that winter is expectedly more important for the *Winter/Nordic* cluster ($M > 3.9$) and less so for the remaining clusters ($M < 2.9$). This demonstrates the seasonal specialization of OR supply and additionally checks the validity of the cluster solutions.

4.4.4. Markets

The companies mostly rely on private markets (72% of sales on average), while corporate market accounts for the rest (28% on average). From geographic perspective, the market seems to be almost equally split between clients from one's own county (36%), other counties in Sweden (29%) and foreign countries (35%). Only 3.3% of the companies reported 100% reliance on foreign markets.

Based on the ANOVA we find differences in the proportion of clients from the same county where the company is registered ($F(3,378)=11.29$, $p < .001$) and foreign countries ($F(3,341)=9.02$, $p < .001$). Clients from the same county are the most important for the *Summer/Relaxing* market (44% of sales), followed by *Summer/Active* (34%), Extractive (27%) and *Winter/Nordic* (18%). Not surprisingly, regarding the foreign markets the picture is the opposite: *Winter/Nordic* cluster is the most reliant on tourists from abroad (55%), followed by *Extractive* (38%), *Summer/Active* (36%) and *Summer/Relaxing* (29%). In both cases statistically significant difference (based on Bonferroni post hoc tests, $p < .05$) lies between *Winter/Nordic* and *Extractive* clusters vis-à-vis *Summer/Active* and *Summer/Relaxing* clusters.

4.4.5. International markets

We see that 80% of all international sales are accounted by only 5 countries: Germany (38%), Denmark (15%), Norway (11%), The Netherlands (11%) and UK (5%). The remaining 20% are covered by trace values of other countries primarily from Western Europe (Finland, Switzerland, Austria, France, etc.). For the comparative purposes the countries were grouped as Germany (38%), the Nordics (32%, including Norway, Denmark, Finland) and Other markets (30%).

Pearson's chi-square test suggests that there is a significant association between cluster membership and importance of markets (X^2=23.46, $p < .01$, Cramer's V=.19 (moderate). While Germany is the leading market for *Summer/Active* (45%), and *Summer/Relaxing* (44%) clusters, the most important for *Winter/Nordic* cluster are Other markets (55%). For the *Extractive* cluster the leading markets are the Nordics (45%), while Germany is also quite important (29%).

5. Discussion

Analysis of the OR activities offered commercially sheds more light on the relationship between the OR and NBT in Sweden as well the supply and the demand (both domestic and international). While difference between the local and foreign markets exists depending on the activities is hardly surprising, it is not as obvious as it might seem at a first glance. It is expected that tourists are more willing to pay for the activities that the locals can easily do independently. NBT entrepreneurs in the analysis by Fredman et al. (2012), for example, report that there are indeed differences in products for which Swedish and non-Swedish clients are willing to pay. Experiencing silence or being in a forest is traditionally valued higher by the tourists from big metropolitan areas. However, there is also an increasing demand for comfort in NBT among the domestic tourists as well, related to the change in demographic, socio-economic and lifestyle patterns, creating more opportunities for commercialization (Fredman et al., 2012; Glover & Prideaux, 2008; Odden, 2008; Vorkinn, 2011; Wall-Reinius & Bäck, 2011).

We see that the markets NBT companies cater to are almost equally split into three groups – recreationists from the same county, domestic tourists from other counties and tourists from abroad. In other words, two-thirds of the clients come from within Sweden, while only a handful of companies are fully dependent on exclusively foreign tourists. It can be assumed that commercial OR is, first and foremost, important locally and outdoor traditions are staying strong, but the mode of engaging in it might be changing. While there is no difference among the clusters in the share of tourists from other counties in Sweden, there is a statistically significant difference regarding the importance of recreationists from the same county and tourists from abroad. It is interesting to note that almost half of all the sales of the companies from the *Summer/Relaxing* cluster seem to be accounted for by the tourists from the same county, which supports the suggestion that there is a growing willingness to pay among the domestic market for activities which were not commercialized before.

Tourists from abroad, especially from distant markets, in their turn, are the most important for a smaller but distinct and important *Winter/Nordic* cluster, i.e. commercialized winter activities are particularly interesting for foreign tourists who are willing to pay for them more than the locals. This might be related to the image of Sweden as a winter exotic destinations, which is able to attract niche but high-yield tourists. It has, for example, been noticed that the number of Japanese tourists is growing during winter time in the Swedish Lapland, particularly attracted to Aurora borealis (Karlsson, 2014). Harsh winter conditions, of course, also inhibit independence and self-reliance of foreign tourists, prompting them to seek commercial solutions.

Regarding the high-yield tourists, *Extractive* cluster should be mentioned. Hunting and fishing, perhaps the most traditional extractive OR activities, are very important for the businesses, almost equally involving the local and international markets. Keeping in mind that Sweden has a strong reputation of a sustainable destination with an abundance of high-quality natural resources (Wall-Reinius & Fredman, 2007; Tillväxtverket, 2015a), it can be assumed that opportunities to engage in extractive nature activities remain one of the strongest 'selling points' for the sector. Extractive activities, however, especially hunting, have been noticed to show a somewhat declining trend in Sweden and beyond, related to socio-economic and cultural transformations, such as increasing affluence, education and urbanization, moving away from traditional values, 'deskilling' and growing environmental concerns (e.g. described as utilitarianism vs. mutualism) (Boman, Mattsson, Ericsson, & Kriström, 2011; Chase, Teel, Thornton-Chase, & Manfredo, 2015). In this light it is particularly interesting to emphasize the popularity of non-extractive activities, relatively new in the commercial domain, offered by more than half of all the responding companies (such as jogging/running in nature, meditation and yoga in nature, bird and wildlife watching or picnicking). It can be suggested that enjoying nature in a less intrusive, non-extractive way is gaining commercial popularity to be reckoned with.

A few words need to be added about Germany, as it is the most important foreign market by far. Predominance of German tourists has also been noticed from the NBT demand perspective, leading in such activities as fishing (Tillväxtverket, 2015a) and hiking in the mountains (Garms, Fredman, & Mose, 2016). This is interesting to note since Germany is not the leading sending country overall in Sweden and comes forth after the neighboring Nordic countries but is among the top three most important markets when looking at the multi-day visits only (Tillväxtverket, 2015b). While Germany is the biggest market overall, it is not the leading one in the *Winter/Nordic* cluster, for which the more important markets are Norway, UK and Other markets. Avoiding cold and darkness is one of the main reasons potential German tourists do not come to Sweden, while significant share of those who come are campers and second-home owners (Garms et al., 2016; Müller, 1999). The popularity and idealized image of Swedish countryside have been noticed before, perpetuated through the romanticized images of idyllic landscapes, wooden houses, the moose and the fairy tales by Astrid Lindgren and Selma Lagerlöf (Müller, 1999). While Germany is the leading market overall, there are variations in the type of activities preferred by tourists from different countries of origin. Overall, the summary of the key highlights regarding the specifics of each cluster can be seen in Table 6.

Finally, it has to be added that based on the results there is no evidence that commercialization is primarily related to the niche or specialized activities, growing in popularity which has been noticed before (e.g. Bottenburg & Salome, 2010; Fredman & Heberlein, 2003; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014; Jones et al., 2015; Odden, 2008; Sandell & Boman, 2014). The data in this study suggests that the most important activities for NBT business are, in fact, traditional OR activities such as fishing, kayaking, canoeing, rafting, picnicking, wildlife watching or swimming. Only a handful of companies offer niche and skill-oriented activities like hang-gliding, parachuting, diving, caving or rock-climbing. There are, however, popular OR activities in Sweden which do not seem to present commercialization interest as of today, e.g. Nordic walking (among the most popular OR activities in Sweden (Fredman et al., 2010), orienteering, sailing, or snowboarding. There is, nevertheless, a common pool of activities: fishing, swimming in the lake/sea, hiking outside mountain areas, picnicking and cycling on roads, which are in the top ten most popular activities both from the perspective of the NBT companies supply and the national inventories of OR participation. Hence, it can be suggested that while OR and NBT overlap, there

Table 6
Key features of OR activities in different segments of the Swedish NBT sector.

	Winter Nordic	Extractive	Summer/Active	Summer/Relaxing
Main business operations	Guided activities, in nature Organization of tours	Accomodation, Organization of tours	Rental and sale of equipment	Guided activities in nature
Sales (average per year in SEK)	3 million	3.4 million	1.4 million	1.3 million
Seasonality	Winter	Summer	Summer	Summer
Main market	International	International Domestic	Domestic International	Domestic
Main international market	Other markets Germany	Nordics Germany	Germany Nordics	Germany Other markets

are still areas which remain in the predominantly non-commercial domain.

6. Conclusions

In our inquiry we demonstrated a snapshot of a how OR is represented in the commercial domain, linking it to the observations both in Sweden and globally on the trends in this field (Aasetre & Gundersen, 2012; Bottenburg & Salome, 2010; Buckley, 2000; Fredman & Heberlein, 2003; Fredman, Lundberg, & Wall Reinius, 2014; Fredman, Stenseke, & Sandell, 2014; Fredman, Stenseke, Sandell, & Emmelin, 2014; Gössling & Hultman, 2006; Keul, 2014; Sandell & Boman, 2014; Varley & Semple, 2015). This approach enabled us to bring together the supply and demand perspectives as well as offer a new angle to understand the structure of NBT supply in Sweden.

The local supply orients towards both domestic and international demand, which become a powerful gravitational force, attracting nature experiences into the commercial domain. Provision of nature-based services, specialized equipment and organizing events in nature are the top-selling services by the NBT operators, all of which have been described as important indicators of commodification of OR (Cloke & Perkins, 2002; Johnston & Edwards, 1994; O'Connell et al., 2005). Particularly indicative is the commercial importance of such seemingly ordinary outdoor activities as cycling on roads, swimming, jogging, picnicking or hiking outside mountain areas, which also attract domestic recreationists. This can be linked to the observed trends of growing preference for shorter, more intense and high quality holidays, as well as growing demand and acceptance of higher accessibility and facility density (Fredman & Heberlein, 2003; Wall-Reinius & Bäck, 2011; Vorkinn, 2011, Fredman, Wall-Reinius, & Grundén, 2012). Furthermore, 'deskilling' of the general population to independently engage with nature might also play its role, which is the result of changing lifestyle, growing urbanization and disconnection from nature – processes which are visible Sweden, even if less pronounced than in some other places of the world. If this trend is ongoing, then new opportunities for the commercial NBT sector can be expected not only on the foreign but also domestic markets, under the shadow of a bigger question of our changing relationships with nature.

The evidence that OR is widely represented in the commercial sphere, however, does not necessarily indicate that OR will eventually be completely engulfed in the ever expanding embrace of neoliberal markets. OR as an important and natural leisure activity will undoubtedly continue existing in the non-commercial domain parallel to the commercial one. As argued by Radin (1996), commodification is not necessarily singular, but can be 'incomplete' or 'contested', allowing for various degrees of its intensity, whereas phenomena can move in and out of the commodity status (Gómez-Baggethun & Ruiz-Pérez, 2011). This is particularly relevant for Sweden, and the Nordic region, since the Right of Public Access and the tradition of *friluftsliv* comprise a strong basis for perpetuation of non-commercial OR, its ongoing reinvention and renewal. More longitudinal research is needed to better understand the changing patterns of OR and NBT, as well as comparative analysis of domestic and foreign recreationists to better understand the changing ways of nature of OR.

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