



Article Is National Park Affinity Related to Visitors' Satisfaction with Park Service and Recreation Quality? A Case Study from a Thai Forest National Park

Jidapa Seebunruang ^{1,2,*}, Robert C. Burns ³ and Arne Arnberger ¹

- ¹ Institute of Landscape Development, Recreation and Conservation Planning,
- University of Natural Resources and Life Sciences, Vienna, 1190 Vienna, Austria; arne.arnberger@boku.ac.at ² Faculty of Interdisciplinary Studies, Nong Khai Campus, Khon Kaen University, Nong Khai 43000, Thailand
- ³ Division of Forestry and Natural Resources, West Virginia University, Morgantown, WV 26506, USA;
 - robert.burns@mail.wvu.edu
- * Correspondence: phacse@kku.ac.th

Abstract: The provision of high-quality national park tourism services depends on an understanding of the role of the national park brand in visitors' decision-making on visiting parks. The consideration of forest recreation and park brand awareness not only helps to increase the quality of visitors' experiences but also assists in the management of natural park resources. This study explored whether national park affinity can explain differences in visitor satisfaction with the national park trip, tourism services and facilities, visitor loyalty, and perceptions of recreation quality as well as visitor expenditures. This study classified 400 on-site visitors to the Khao Yai National Park into three national park affinity segments. The results indicated that about two-fifths of respondents had a low national park affinity with less satisfaction with the national park tourism facilities and services and visitor management. This segment reported lower visitor loyalty and that visitors felt more crowded, while no differences in expenditures for the trip were found between the affinity segments.

Keywords: national park affinity; crowding; national park tourism; Khao Yai National Park; park brand; visitor loyalty; visitor management

1. Introduction

The designation of protected areas is one of the most important tools of nature conservation. Protected areas such as national parks not only have ecological and educational functions, but are also important tourist destinations that provide tourism services and facilities. Consequently, the national park brand has become important in tourism marketing attracting many visitors to explore high-quality natural environments and unique places [1–3]. However, many national parks are highly or even over-visited and the need for effective visitor management concepts is increasing to satisfy visitor needs and protect the area from tourism impacts [4,5]. Segmenting park visitors assists in understanding visitors' needs and behaviors and allows tourism stakeholders to develop targeted tourism products and services for each segment.

Previous research has found that park visitors differ, for example, in the degree of their affinity to national parks [6–9]. The national park affinity concept is rooted in the travel motivation [10–14] and identifies visitor segments based on visitors' park awareness and the importance of the national park brand. This in turn potentially influences their decision to visit a region because of the existence of a national park [15]. Previous research on park affinity has found a high variation of visitors with high or low park affinity across national parks worldwide. While in many European countries, the national park brand itself had little influence on the majority of park visitors' decision to visit the national park, or they were even not aware of visiting one [6,8,9,15,16], studies in the USA and Africa [17–21]



Citation: Seebunruang, J.; Burns, R.C.; Arnberger, A. Is National Park Affinity Related to Visitors' Satisfaction with Park Service and Recreation Quality? A Case Study from a Thai Forest National Park. *Forests* **2022**, *13*, 753. https:// doi.org/10.3390/f13050753

Academic Editor: Luis Diaz-Balteiro

Received: 26 April 2022 Accepted: 11 May 2022 Published: 13 May 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). found higher proportions of visitors with high national park affinity. Managing visitors who are less or even not aware of national park aims such as preserving the natural environment may impose a challenge for national park administrations. If visitors have little or no understanding of the functions and nature conservation ideas of national parks, they may have different expectations which will probably not be met during their park visit. This may negatively influence their level of satisfaction with park-based tourism services and recreation quality. On the other hand, visitors with high affinity should be the actual target group of national parks. Therefore, a distinction according to park affinity is important for the administration to check to what extent it reaches and satisfies its target group. While previous affinity research has focused on visitor attitudes toward conservation management [6,7,22], economic aspects [8,23] or visitor management [24], the question of whether the national park affinity concept is useful to identify differences among visitors with different levels of affinity in their satisfaction with a national park trip, park tourism services, park scenery, visitor loyalty and perceptions of outdoor recreation experience arises. Yet, to date, few, if any, studies have analyzed whether park affinity influences satisfaction with park tourism services, landscape scenery, perceptions of outdoor recreation experience, and visitor loyalty [25]. This study defined national park affinity segments and analyzed whether satisfaction with national park trips and park tourism services, perceptions of recreation quality, and visitor loyalty differ per national park affinity segment in an Asian forest national park.

The article is structured into five main sections. We first discuss the theoretical framework and then describe the study area and research methodology. Next, we analyze and discuss our results with respect to the relevant literature. Lastly, the conclusions address research limitations and practical recommendations for park managers and scholars.

1.1. Visitor Satisfaction with Park Services and Facilities

Visitors' satisfaction with park-based tourism services and recreation quality is essential information for national park administrations and regional tourism [2,4–7,26]. The level of satisfaction that an individual gains from a national park visit is vital for local economic development and sustainable area management. A satisfying experience can encourage repeat visits, increase visitor expenses, promote positive word-of-mouth recommendations, and attract new tourists to those places [5,25,27–30]. Thus, achieving high visitor satisfaction is one of the most important goals for nature-based tourist destinations [29]. Satisfaction is a feeling or emotional state commonly used in tourist behavior research to understand tourists' enjoyment, needs, wants, and willingness to pay [5,31]. The expectancy disconfirmation paradigm [32] suggests that positive disconfirmation can encourage destination loyalty, which tends to influence repeat visitation and positive word-of-mouth (WOM) recommendations. Thus, when tourism services are rated better than expected, new visitors may be attracted to those places [5,29,33–35]. In contrast to negative disconfirmation, dissatisfaction may result in visitors expressing negative WOM and recreating in other places [34].

As Dickman [36] suggested, tourists' needs and demands can be defined in terms of the five As of tourism, namely attraction, activity, accommodation, access, and amenity. These five As of tourism should all be considered when developing or assessing tourism destinations. Tourist attractions and activities at these places are principal travel motivations for tourists. Forest national parks, for example, provide attractive scenery and topographical, hydrological, faunistic and floristic resources which can be explored by outdoor activities such as hiking and wildlife watching [37]. Access is a fundamental requirement for visitors (e.g., road conditions and linkages between transport modes and attractions). Amenities are the required products and services that allow for convenience while traveling to, within and from the destination, such as public toilets, park signage, and provision of food and beverages. Lastly, a variety of accommodation types at or near attractions is a basic need for overnight visitors. Many studies have investigated visitors' satisfaction with specific national park tourism services [33,38–44]. The results of these studies indicate that the park users often had a satisfactory experience with the national park's ecosystem services, especially with the natural environment and scenery including forests. However, little research has analyzed whether visitor satisfaction associated with a park's opportunity and recreation quality is related to national park affinity, although one can assume a positive relationship. A recent study among visitors to the German Bavarian Forest National Park found that overnight tourists with higher national park affinity were more satisfied with nature conservation park management than visitors with low national park affinity [7]. Arnberger et al. [6], however, found no differences between affinity segments in satisfaction with an Austrian forest national park area for recreational purposes.

Measuring visitor loyalty, defined as a commitment to a particular destination, place or brand [27], is important as loyalty indicates support for protected areas. Loyal park visitors were regarded as less sensitive to increased pricing and can encourage other people to visit a park through positive word-of-mouth [30]. While several studies have analyzed the relationship between park loyalty and satisfaction [25,27,29,30], little research has related visitor loyalty to parks with park affinity, although both concepts seem to be positively related. Arnberger et al. [7], however, found no relationship between the likelihood of a revisit of a park and park affinity.

1.2. Quality of the Recreation Experience of National Parks

Well-known tourism destinations such as national parks attract a great number of tourists [4] which can diminish the quality of the recreation experience because of crowd-ing [45–47]. In addition, unsatisfied visitors may avoid returning to a park on account of their crowding perceptions [16,48–50]. Accordingly, crowding is a challenging issue in park tourism management.

Crowding can be described as a negative evaluation of the visitor density of an outdoor recreation area [46,47,51] and has been most widely measured with a nine-point scale ranging from not at all crowded to extremely crowded [46,51–55]. Previous studies showed that perceptions of crowding may be influenced by numerous factors, such as socio-demographic characteristics, recreation activities, past experiences, and expectations of use levels [16,50,51,56–58]. In addition, visitors may be impacted by the type and number of visitors encountered and the location of encounters [58], and the situational variable, describing the resource conditions, including the time of the visit and resource abundance [46]. To date, crowding has been considered the most direct social impact on outdoor recreation [37]; however, few if any studies have analyzed the relationship between park affinity and crowding [7,8,22].

1.3. Research Questions

National park policy and park tourism management require information about the role the park brand plays in tourism [7,8,57,59]. This information is crucial for assessing satisfaction per visitor affinity group, as visitors with higher affinity are seen as the target group of national parks. If park management is confronted with a high proportion of visitors with low national park affinity, it may face specific challenges, such as inappropriate visitor behaviors. Unfortunately, this type of knowledge is often non-existent [7]. So far, very little research has related the affinity concept to satisfaction with park services, visitor loyalty and recreation quality. In addition, this segmentation concept has not been applied to Asian forest national parks such as the Thai Khao Yai National Park (KYNP). This study surveyed KYNP visitors and related the national park affinity concept [15] to visitor characteristics, satisfaction levels with the park trip, park-based tourism offers, visitor loyalty and crowding perceptions. The following research questions guided the study:

- Do affinity segments differ in their satisfaction with the trip and park tourism services, i.e., attractions, activities, accommodation, access, and amenities?
- Do affinity segments differ in their crowding perceptions, visitor loyalty, and trip expenditures?

2. Study Area and Methodology

2.1. Study Area

The KYNP was established as the first national park of Thailand in 1962 (Figure 1). The KYNP covers a vast forest area of about 216,800 ha, including different types of evergreen and mixed deciduous forests and grassland. The forest park features a variety of biodiversity, including at least 800 fauna species, 112 species of mammals, 392 species of birds, and 200 reptiles and amphibians. In addition, elephants, tigers, gaur, gibbons, and hornbills are examples of globally vulnerable species [60].





The forest park is managed as an IUCN Category II protected area, with its main objectives being ecosystem protection and human visitation for education and recreation. In 2005, the park was ascribed as a UNESCO World Heritage Site under the name Dong Phaya Yen-Khao Yai Forest Complex, including four protected areas arrayed on one mountain range. In 2018, the park had 1,489,876 visitors, with peak visitation occurring in winter [61]. KYNP is the most visited national park in Thailand and a large number of entrepreneurs have developed many tourism facilities around it. The park area lies largely in the province of Nakhonratchasima, and also includes parts of Saraburi, Prachinburi, and Nakhonnayok provinces, with two entrances at the opposite sides of the park. The northern entrance is situated in Nakhonratchasima, while the southern access is in Prachinburi, roughly 124 and 99 miles, respectively, from Bangkok. The majority of visits are through the northern access, as most tourist attractions and recreation activities of interest are situated along this path. These include vineyards, farm touring, horse and elephant riding, food services, souvenir shops, and outlet stores. Moreover, around the northern entrance, many accommodation types, such as camping sites, homestays, rental apartments, and luxury resorts are offered. The park itself offers a variety of recreation activities, including hiking, trekking, bird watching, wildlife observation, and stargazing. The park provides and manages two types of lodging within the park—cabins and campgrounds. The use of tent campgrounds is unlimited through the peak season. The park represents year-round use with different rates of entrance fees, with about EUR 1 for Thais and EUR 10 for foreigners. Children below 3 years and elders above 60 years are exempted from fees. Riding and cycling are allowed in the park, but pets are not permitted. Park access and visitor behavior are regulated by the Thai National Parks Act, B.E. 2504 [62].

2.2. Questionnaire

The questionnaire was asked in English for international visitors and in Thai for domestic visitors. Questions were asked about socio-demographic characteristics, origin, level of education, occupation, and pre-tax income. Trip characteristics of respondents were defined by type and members of a group, type of travel, length of park visit, and

5 of 17

accommodation type. Questions pertaining to past experience asked how often respondents have visited KYNP in the past year and during their life were also included.

The national park affinity concept, developed by Küpfer [15] and adapted by Arnberger et al. [6] was used to identify possible segments among visitors with different national park affinity levels. This concept proposes three groups: the so-called "Explicit National Park Visitor" (Explicit NPV), the "Interested National Park Visitor" (Interested NPV), and the "Area Visitor" (AV). The affinity-based segmentation relied on the combination of three questions addressing the role of the KYNP brand in visitor trip motivation. The survey queried visitors to understand if they were aware they were visiting a national park (brand awareness). Visitors were then asked "How important was the KYNP brand in your decision to come to this area?" The answering scale included four choices: the KYNP brand played (1) a dominant role; (2) an important role; (3) a less important role; and (4) no role in coming to KYNP. The fifth answer category of this item collected information about the proportion of visitors who were not aware of visiting a national park [6,23]. This question was cross-tabulated with the question asking "Would you be here if KYNP is not a national park?" The responses were limited to "no" or "yes". The combination of these questions identifies the proportion of visitors who were specifically attracted by the national park brand or not based on the three above-mentioned visitor segments (Table 1). The visitor segment with the highest national park affinity was called the "Explicit NPV", who visit the area because of the national park brand. The visitor segment with the second-highest affinity level was the "Interested NPV", for whom the national park has played an important role in visiting, and whose travel decision-making is influenced by the national park area. The "AV" had the lowest affinity and was not attracted by the NP brand or was even not aware of visiting a national park.

Table 1. National park affinity segments with segment sizes (n = 400).

Would You Be Here If KYNP Was Not an NI	The KYNP ^a Played	A Dominant Role (28.7%)	A Very Important Role (30.7%)	Not an Important Role (15.7%)	No Role in Coming to This Place (24.7%)	
No (32.0%)		The Explicit Nationa 22.0% ($n = 88$)	ll Park Visitor:	The Area 40.5% (<i>n</i>	Visitor: = 162) *	
Yes (68.0%)		The Interested Natio 37.5% ($n = 150$)	onal Park Visitor:	_ +0.576 (<i>n</i> = 102)		

* Including 2.8% of the sample being not aware of visiting a national park; a KYNP: Khao Yai National Park.

Satisfaction with national park tourism services, a measure of perceived quality of performance, included 27 attributes based on the 5 As in tourism, i.e., accessibility, accommodations, activities, attractions, and amenities [36]. Visitors rated each item of the five dimensions on a 5-point Likert scale, ranging from "1 = very dissatisfied" to "5 = very satisfied". Visitors were also asked about their overall satisfaction with the trip (today, trip if overnight visitor), each measured on a 10-point-scale [63], ranging from "1 = terrible" to "10 = delighted". These measures assessed the emotional state of visitors based on their trip experiences [29].

Crowding perceptions (current and trip) were asked using the 9-point answer scale [45]. A response of 1–2 indicates not at all crowded, 3–4 indicates slightly crowded, 5–7 indicates moderately crowded, and 8–9 indicates extremely crowded. The questions "Will you make a return trip to KYNP?" and "Will you positively recommend KYNP to your friends/family?" were used to measure visitors' intentions to re-visit and make recommendations to others post-visit, using a 4-point scale that ranged from 1 (yes, very likely) to 4 (never). These behavioral intentions provide a means for measuring visitor loyalty [27,29].

2.3. Data Collection

On-site visitor surveys were carried out during the high and low seasons of park visitation (end of January to end of March) [61]. In order to cover all types of park users, questionnaires were distributed to randomly selected visitors at both park entrances on workdays and weekends between 10 AM and 5 PM. Visitors could return the filled questionnaires at the gates. A sample size of 400 questionnaires was targeted to be within a sampling error of < \pm 5% based on a confidence level of 95%. In total, 1600 questionnaires were distributed; around 25% were returned at the gates. About 4.5% of respondents sent back the questionnaires after their visit via e-mail. Only visitors 18 years or older were included in the survey.

2.4. Data Analysis

One-way ANOVA and chi-squared tests tested for differences among the three affinity segments on visitor characteristics, expenditures, satisfaction with the 5 As, crowding perceptions, willingness to return and willingness to make positive WOM comments. Post hoc tests were run to identify differences between the affinity segment means using Scheffe or Tamhane's T2 tests.

Reliability testing of all 5 As tourism items resulted in a Cronbach's alpha of 0.900. The reliability per dimension of the 5 As ranged from a Cronbach's alpha of 0.621 to 0.963, showing that the internal consistency of the dimensions was acceptable. Reliability tests were also calculated for trip satisfaction (today, trip—only overnight visitors), crowding perceptions (current, trip—only overnight visitors), and visitors' willingness to return and make positive WOM comments. A significance level of p < 0.05 was chosen. Data were analyzed using the statistical program SPSS.

3. Results

3.1. National Park Affinity Segmentation

Only a small proportion (2.8%) of the sample was not aware of the protection area brand of the place they were visiting. The KYNP brand was the most dominant or a very important reason for close to 60% of the participants visiting this area. The park played an unimportant role for about 16% of them and no role for one-fourth of the sample. Close to one-third of the sample would not have been there if the KYNP had not existed. The frequencies per answer category of the affinity questions were cross-tabulated to identify the proportion for each visitor segment (Table 1). The KYNP brand played a crucial role in trip planning for 22% of the respondents visiting this park. This segment was called the Explicit NPV with the highest affinity level. The segment with the second-highest affinity level was the Interested NPV (37.5% of the sample). The largest segment was the AV (40.5% of all respondents). This group showed the lowest affinity and was not influenced by the national park brand.

3.2. Characteristics of the Affinity Segments

Differences between the segments were found for origin (p < 0.001), income (p < 0.05), proportion of first-time visitors (p < 0.01), group composition (p < 0.01), travel mode to (p < 0.01) and within the KYNP (p < 0.01), and accommodation type (p < 0.01). No differences between the segments were found for many socio-demographic variables. There were also no differences between the segments in entrance gate use, years visited the park (for repeat visitors), frequency of visits, group size, and length of the park visit (Tables 2 and 3). Only 7% of the respondents did not stay overnight in or nearby the park in accommodation, with no differences between the segments.

Items	All (<i>n</i> = 400)	Explicit NPV (<i>n</i> = 88)	Interested NPV (<i>n</i> = 150)	Area Visitor (<i>n</i> = 162)	ANOVA, χ^2
Gender (female in %)	57.0	57.9	58.0	55.5	$\chi^2 = 0.232$
Age in years (mean)	32.4	32.7	32.1	32.6	F = 0.141
Origin in %					
Communities adjacent to NP	12.0	12.5	16.7	7.4	2 01 501 ***
Other parts of Thailand	78.0	63.6	79.3	84.6	$\chi^2 = 31.791^{***}$
Abroad	10.0	23.9	4.0	8.0	
Household size (mean)	4.0	3.5	3.9	4.0	F = 2.254
Level of education in %					
Primary and high school	10.0	11.4	12.7	6.8	$\chi^2 = 3.222$
Diploma and university	90.0	88.6	87.3	93.2	
Main profession in %					
Students	18.8	18.2	17.3	20.4	
Family duties, Pensioners	2.8	3.4	1.3	3.7	
Government officers	25.0	20.5	27.3	25.3	$\chi^2 = 10.618$
Business owners	16.8	17.1	16.0	17.3	
Employees, workers, farmers	31.5	30.7	35.3	28.4	
Unemployed, looking for	E 2	10.2	27	4.0	
work	5.5	10.2	2.7	4.9	
Pre-tax income in %					
<500 €	52.0	52.3	59.3	45.1	2 0.004 *
501–1000 €	23.5	19.3	24.0	25.3	$\chi^{-} = 9.994$ *
>1000€	24.5	28.4	16.7	29.6	

Table 2. Socio-demographic profile of respondents and per affinity segment (n = 400).

* p < 0.05. *** p < 0.001.

Table 3. Park visit-related profile of respondents and per affinity segment (n = 400).

Items	A11 (<i>n</i> = 400)	Explicit NPV (<i>n</i> = 88)	Interested NPV (<i>n</i> = 150)	Area Visitor (<i>n</i> = 162)	ANOVA, χ^2
Entrance gate (Northern gate in %)	50.0	47.7	56.0	45.7	$\chi^2 = 3.552$
Type of visiting (first time and return visitors; return visitors in %)	69.0	56.8	76.0	69.1	$\chi^2 = 9.543 **$
No. of years visited (only return visitors; in mean)	5.9	6.8	5.0	6.3	F = 1.977
No. of visits in past 12 months (only return visitors; in mean)	3.2	3.8	2.9	3.2	F = 0.828
No. of visits in life time (only return visitors; in mean)	9.0	8.9	8.1	10.1	F = 0.466
Composition of groups in %					
Alone	2.5	8.0	0.7	1.2	
Friends	43.5	44.3	42.0	44.4	$\chi^2 = 14.846 *$
Family members	46.5	42.0	48.7	46.9	
Part of commercial tour, organization, school	7.5	5.7	8.7	7.4	

Items	All (<i>n</i> = 400)	Explicit NPV (<i>n</i> = 88)	Interested NPV (<i>n</i> = 150)	Area Visitor (<i>n</i> = 162)	ANOVA, χ^2
No. of persons in group (respondent included; in mean)	6.4	4.7	6.9	6.8	F = 0.760
Vehicle from home to KYNP in %					
Private transport	89.5	80.7	92.0	92.0	2 10 000 **
Public transport	10.0	19.3	8.0	6.8	$\chi^2 = 13.829 **$
Thumbing a ride	0.5	0.0	0.0	1.2	
Vehicle travel within/around KYNP in %					
Private transport	89.0	78.4	92.7	91.4	$\chi^2 = 17.493 **$
Public transport	7.3	15.9	6.0	3.7	<i>R</i>
Thumbing a ride	3.8	5.7	1.3	4.9	
Length of visiting KYNP in %					
Short stop (less than 3 h)	13.5	12.5	10.7	16.7	
Half-day (3–4 h)	15.3	6.8	17.3	17.9	$\chi^2 = 11.695$
All day (more than 4 h)	18.8	17.0	18.0	20.4	
Overnight stay in KYNP	52.5	63.6	54.0	45.1	
Accommodation type (overnight					
visitors (<i>n</i> = 371); in %)					
In-Park Campground	42.9	50.6	44.9	36.7	
In-Park Cabins	12.4	15.3	13.2	10.0	$x^2 - 27528 **$
Outside Park Hotel 1–2 stars	5.7	5.9	5.9	5.3	$\chi = 27.558$
Outside Park Hotel 3 stars	14.8	16.5	12.5	16.0	
Outside Park Hotel 4–5 stars	11.6	4.7	6.6	20.0	
Others	12.7	7.1	16.9	12.0	
Expenditure (€) (overnight visitors)					
Expenditures for accommodation/night	30.5	28.2	24.1	37.7	F = 3.069
Total daily expenditures (including accommodation)	44.7	38.2	46.6	46.3	F = 0.749

Table 3. Cont.

* p < 0.05. ** p < 0.01.

The Explicit NPV segment included the highest proportion of international and firsttime visitors, public transport users, and users of in-park accommodations. The largest proportion of return visitors and locals living around the park formed the Interested NPV segment. This segment often came by private transport and had the lowest level of income. One-fifth of the AV segment stayed in four- or five-star hotels outside the park and had the highest income. Mostly domestic visitors from urban areas were part of this segment, traveling by private transport.

On average, daily expenditures were EUR 45 including accommodation. Overnight visitors spent EUR 31 per night and person for their accommodations (Table 3). There were marginal differences between the segments in expenditures for accommodations (p = 0.053) with AVs spending the most and no differences between the segments in total daily expenditures. No differences in daily expenditures were found between overnight visitors and day visitors.

3.3. Visitor Satisfaction, Crowding Perceptions, and Visitor Loyalty

3.3.1. Trip Satisfaction

Overall, visitors were rather satisfied with their day's trip and their total trip (overnight visitors only) with higher satisfaction scores for their evaluation of their day's trip (Table 4). Differences in satisfaction between the affinity segments were found for a day's visit

(p < 0.05) and total trip (p < 0.05). The Interested NPV segment reported higher satisfaction levels than the AV segment, while no differences emerged between the Interested NPV and the Explicit NPV as well as between the Explicit NPV and the AV segments.

Table 4.	Visitor s	atisfaction	with trip,	park services a	ind facilities and	per affinity segmer	۱t.
				1		1 2 0	

Items	Cron- bach's α	All (<i>n</i> = 400)	Explicit NPV (<i>n</i> = 88)	Interested NPV (<i>n</i> = 150)	Area Visitor (<i>n</i> = 162)	ANOVA F Value
Trip satisfaction Trip satisfaction today ¹ (all visitors)	0.894	6.857.05	6.82 ^{a,b} 6.93 ^{a,b}	7.20 ^b 7.32 ^b	6.50 ^a 6.86 ^a	4.462 * 4.176 *
Total trip satisfaction ¹ (overnight visitors)		6.84	6.78 ^{a,b}	7.22 ^b	6.47 ^a	4.754 *
5 As Tourism Perception ²	0.900	3.54	3.54 ^{a,b}	3.62 ^b	3.45 ^a	3.087 *
Access	0.869	3.88	3.82	3.93	3.88	0.457
Condition of roads on the way to NP		3.90	3.84	3.91	3.93	0.249
Condition of roads in the NP		3.87	3.80	3.95	3.83	1.051
Accommodation in/around KYNP	0.963	3.26	3.43	3.20	3.23	1.011
Cleanliness of accommodation		3.29	3.45	3.22	3.26	0.860
Accommodation pricing		3.17	3.41	3.13	3.07	1.779
Security of room		3.27	3.43	3.18	3.26	0.922
Facilities and adequacy of water/electricity supply		3.30	3.40	3.20	3.35	0.688
Staff friendliness		3.30	3.49	3.29	3.20	1.206
Activities in KYNP	0.621	3.54	3.54 ^{a,b}	3.62 ^b	3.45 ^a	4.263 *
Variety of leisure activities		3.52	3.57	3.54	3.46	0.498
Natural/landscape sightseeing		4.12	3.99	4.18	4.12	1.796
Hiking/walking		3.59	3.47	3.75	3.49	1.913
Wildlife observation		3.04	3.15 ^{a,b}	3.37 ^b	2.69 ^a	7.334 **
Attractions in KYNP	0.733	3.54	3 54 ^{a,b}	3.62 b	3.45 ^a	5.929 **
Variety of tourist attractions	000	3.90	3.81 a,b	4.03 ^b	3.80 a	3 550 *
Waterfalls		3.85	3.80 a	4.00 a	3.00 a	3 311 *
Sightsooing viewpoints		3.00	3.80 a	4.01 1 11 a	3.72 3.91 a	3.311
Amount and quality of the natural		3.36	3.16	3.54	3.30	2.163
trail networks		2 00	a aa ah	a a= b	2 (0)	
Wildlife area fenced/observatories		2.99	3.08 ^{a,b}	3.27 6	2.68 ª	5.609 **
Amenities in KYNP	0.859	3.35	3.35 ^{a,b}	3.48 ^b	3.24 ^a	4.778 **
Signposting on the way to the park		3.78	3.67	3.89	3.74	2.174
Park signs		3.80	3.67 ^a	3.93 ^b	3.75 ^{a,b}	3.283 *
NP entrance fee		3.53	3.56	3.62	3.44	1.382
Amount of parking lots		3.61	3.48 ^b	3.79 ^a	3.52 ^b	4.690 *
The number of waste containers		3.40	3.39	3.44	3.37	0.203
Amount and cleanliness of public		3 1 2	3 1 5	3 20	3.02	1 190
toilets		0.12	0.10	0.20	0.02	1.170
Variety of food and beverage of the restaurants		2.96	3.00	3.07	2.84	1.711
Food and beverage pricing		2.99	3.05	3.05	2.89	0.963
Information on park tourism		3.41	3.51	3.51	3.27	2.026
Information on animals and plants		3.19	3.19 ^{a,b}	3.46 ^b	2.94 ^a	5.958 **
Information on cultural history of		3.11	3.16 ^{a,b}	3.35 ^b	2.86 ^a	4.950 **

^{a,b} Post hoc tests (Scheffé (variance homogeneity), Tamhane's T2 (variance heterogeneity)); means with the same superscripts do not differ at the p < 0.05 level. ¹ Answer scale; 1 = terrible; 10 = very delighted; ² Answer scale; 1 = very dissatisfied; 5 = very satisfied. * p < 0.05. ** p < 0.01.

3.3.2. Satisfaction with the Five As

The Access dimension of the five As received the highest satisfaction scores, while the Accommodation dimension was rated the lowest (Table 4). Differences in total satisfaction including all five dimensions were found between the segments with significant differences only between the Interested NPV and the AV segments (p < 0.05). The Interested NPV segment reported the highest satisfaction level. Differences in satisfaction between the dimensions were found for Activities (p < 0.05), Attractions (p < 0.01) and Amenities (p < 0.01). For these dimensions, significant differences between the Interested NPV and the AV segments were found with higher satisfaction levels of the Interested NPV segment.

Respondents reported the highest satisfaction scores for sightseeing of nature and forest landscape (M = 4.12 on the five-point scale) while the least satisfactory service was the variety of food services in the park, with a mean score of 2.96 (Table 4). Differences in satisfaction between the segments were found for wildlife observation (p < 0.01), variety of tourism attractions (p < 0.05), waterfalls (p < 0.05), sightseeing viewpoints (p < 0.05), wildlife observatories (p < 0.01), park signs (p < 0.05), amount of parking lots (p < 0.01), and information on animals and plants (p < 0.01) and area history (p < 0.01). For all these items, the Interested NPV segment reported the highest, and the AV often reported the lowest, satisfaction scores.

Both trip satisfaction measures correlated positively with the five As performance measures (total trip satisfaction: access (r = 0.369, p < 0.01), accommodation (r = 0.461, p < 0.01), activities (r = 0.373, p < 0.01), attractions (p < 0.01), amenities (r = 0.382, p < 0.01); today's trip satisfaction: access (r = 0.324, p < 0.01), activities (r = 0.233, p < 0.01), attractions (r = 0.301, p < 0.01), and amenities (r = 0.426, p < 0.01). Positive correlations between satisfaction and expenditures were found only for the accommodation dimension (r = 0.163, p < 0.01) and access dimension (r = 0.111, p < 0.05).

3.3.3. Crowding Perceptions and Visitor Loyalty

Overall, the visitors considered the park to be slightly crowded on the day of the survey and for their whole trip (Table 5). Differences in crowding perceptions for their whole trip (p < 0.05) and for the aggregated crowding measure (p < 0.05) between the affinity segments were found. The AV overnight segment reported the highest crowding for their whole trip, while the Interested NPV overnight segment reported the lowest crowding. There was a weak negative correlation between satisfaction of the five As (all dimension item) and current crowding perceptions (r = 0.103, p < 0.05), but there were no significant correlations between crowding and trip satisfaction (today, whole trip).

Table 5. Perceptions of recreation quality and visitor loyalty per national park affinity segment.

Items	Cron-bach's α	All (<i>n</i> = 400)	Explicit NPV (<i>n</i> = 88)	Interested NPV (<i>n</i> = 150)	Area Visitor (<i>n</i> = 162)	ANOVA F Value
Crowding Perceptions ¹	0.927	4.88	4.58 ^a	4.60 ^a	5.41 ^b	4.575 *
Current trip (all visitors)		4.44	4.39	4.31	4.60	0.854
Whole trip (only overnight visitors)		4.94	4.64 ^a	4.68 ^{a,b}	5.47 ^b	4.091 *
<i>Visitor loyalty</i> ²	0.790	1.36	1.46 ^b	1.22 ^a	1.43 ^b	9.894 ***
Will you return to KYNP?		1.38	1.53 ^b	1.21 ^a	1.44 ^b	11.356 ***
Will you positively						
recommendKYNP to your		1.34	1.39 ^{a,b}	1.23 ^a	1.42 ^b	5.858 **
friends/family?						

^{a,b} Post hoc tests (Scheffé (variance homogeneity), Tamhane's T2 (variance heterogeneity)); means with the same superscripts do not differ at the *p* < 0.05 level. ¹ Answer scale; 1 = not at all crowded; 9 = extremely crowed; ² Answer scale; 1 = yes, very likely; 4 = never. * *p* < 0.05. ** *p* < 0.01. *** *p* < 0.001.

Visitors were very likely to return to the KYNP and provide positive WOM comments (Table 5). Differences between the affinity segments were found for re-visitation the KYNP

(p < 0.001) and WOM recommendations (p < 0.01). The Interested NPV segment showed the highest probability to re-visit and make positive WOM comments. The more satisfied visitors were, the higher was the likelihood of returning (today trip satisfaction r = -0.260, p < 0.01; whole trip satisfaction r = -0.150, p < 0.05; five As all dimensions r = -0.195, p < 0.05) and make positive WOM comments (today trip satisfaction r = -0.262, p < 0.01; whole trip satisfaction r = -0.166, p < 0.05; five As all dimensions r = -0.120, p < 0.05).

4. Discussion

This study defined visitor segments based on brand awareness and the importance of the park brand in decision making on visiting a forest national park. Additionally, the study explored whether national park affinity explains the differences in visitor satisfaction with the national park trip, tourism services and facilities, visitor loyalty, and perceptions of recreation quality, as well as visitor expenditures.

This research suggests the national park brand was the dominant reason to visit for more than one-fifth of KYNP visitors. This proportion is higher when compared to many studies on European national parks using the same or a similar approach [6-9,15,23,64]. However, the proportion of visitor segments with higher affinity (Explicit and Interested NPV) is lower compared to US national parks [17-20] and slightly similar to one example from Uganda [21]. However, we note that comparability is limited due to differences in the questions asked in the individual studies. When compared to European national parks, the higher proportion of Explicit and Interested NPV segments of the KYNP might be explained by the location of several European national parks. These parks are typically close to larger settlements [65], resulting in many local visitors with lower affinity and few overnight visitors [7,8]. It should also be noted that many European parks have been long-existing tourism areas, and the national park was established somewhat later, causing these "traditional" tourists to have a lower park affinity [6]. In addition, KYNP is older than many (Central) European national parks, potentially attracting more Explicit and Interested NPV. However, previous research has found that park age inadequately explains the differences in affinity segments [6,8].

Previous research [6,7,22] has shown that visitors with higher park affinities have more positive attitudes towards nature conservation management and park functions. Managing parks for these visitors and meeting their needs and expectations appears to be easier because of their greater understanding of the nature conservation goals of national parks. Compared to several Central European national parks, KYNP visitors (Explicit and Interested NPV) may be more likely to accept visitor regulations to protect the park environment. Nonetheless, a large proportion of visitors (AV-40.5%) are likely less aware of the conservation goals of national parks and may have different trip expectations, creating a more challenging environment for visitor management.

4.1. The Characteristics of the Affinity Segments

This study found distinct differences between the affinity segments in travel and accommodation choice. In line with previous research on attitudes towards national parks [6,7,22], the Explicit NPV segment was more environmentally conscious with choosing eco-lodges in the national park and eco-friendlier travel means compared to the other segments. Previous research on the characteristics of affinity segments has noted differences in the type of accommodation used [7], while other researchers did not [6,8]. This study found a significant difference in chosen accommodation types between the segments, confirming the results of Arnberger et al. [7]. In both studies, Explicit NPV chose accommodation types with lower levels of comfort, as camping sites and cabins within the park were their main accommodation choices. Previous research on ecotourism has found that a majority of eco-tourists from Europe, North America, Australia and Japan have a high demand to experience and learn in a natural environment [66,67], and often prefer simple types of accommodations without luxury but with easy access to nature [68,69]. In contrast, the AV segment was attracted by places of intense tourist activities around the

park, while the park was only a side aspect of their trip. This segment, which was more affluent than the other segments, stayed overnight outside the park, typically in four- to five-star hotels. Comfort and convenience are more likely to be their first consideration for traveling compared to the other segments.

Previous park studies found that highly satisfied visitors are more willing to pay for park services [5]. This study can partly confirm this, as satisfaction with access and accommodation dimensions was positively correlated with expenditures. Previous research in Germany has found that expenditure does not depend on park affinity [8]. In line with these results, no differences in expenditures were found between the KYNP affinity segments. However, the AV segment spent more because of their accommodation choice. The Interested and Explicit NPV segments provided a greater economic benefit to the national park by using in-park accommodations, while the AV segment was more likely to support local businesses outside the national park.

4.2. Differences in Visitor Satisfaction

This study highlights that satisfaction with the national park trip and park tourism's services and facilities is related to national park affinity. Similar to other park visitor satisfaction studies [41,70], this national park offers satisfying experiences to most visitors in pristine forests with unique natural features and wildlife. This study, however, could not show that with increasing park affinity visitor satisfaction increases because differences in satisfaction were mainly found between the Interested NPV and the AV segments. The Interested NPV segment had the most satisfying experiences of their trip, especially for the natural environment attractions and recreation quality. Obviously, the national park met best their expectations for a park visit, also indicated by their highest willingness to return and provide positive WOM comments. The Explicit NPV segment did not report higher satisfaction scores compared to the AV segment and reported lower satisfaction levels than the Interested NPV segment. In contrast, Arnberger et al. [7] found that visitors in the Explicit NPV category differ significantly from AV but not from Interested NPV. The question arises of why the Explicit NPV segment was not very satisfied, as the park is actually their targeted destination. The Explicit NPV segment with its high proportion of international and first-time visitors was, specifically, not very satisfied with the park signage, park information system and wildlife observation opportunities. As they were very likely not familiar with the park area, the Thai language on most of the park signage and park information system may have negatively impacted their experiences. The Explicit NPV segment of KYNP may also have higher expectations because of their higher international experience with national parks. Further research may explore this assumption.

The AV segment reported lower satisfaction levels and was relatively uninformed about the park. In particular, the wildlife exposures, wildlife watching, and on-site park information on nature and culture did not satisfy their needs probably because of their low affinity. Targeted prior information on the assets of the national park and park activities may help them in adjusting their expectations and trip planning.

4.3. Differences in Crowding Perceptions and Visitor Loyalty

The KYNP visitors reported higher levels of perceived crowding compared to studies using the same crowding scale [39,51,54,55], potentially reflecting the fact that the KYNP is the most visited park in Thailand. Previous research has found that time and location of encounters influence crowding perceptions [58]. The AV segment reported higher crowding than the other segments. The activities of this segment concentrated on heavily used carriage roads in and around the park which were parts of popular recreational activities. In contrast, the other segments indicated a strong interest in participating in nature activities in less populated park areas.

In line with previous research, satisfaction positively influenced visitor loyalty [27,29,30]. While a study found that visitors with a high level of environmental affinity are less likely to return [27], Arnberger et al. [7] reported no relationship between the likelihood to revisit a

national park and park affinity. In this study, the Interested NPV segment with the highest affinity and satisfaction reported the highest visitor loyalty, indicating that this segment may be more supportive for KYNP. This segment, with its high proportion of local and national visitors, shows the best destination fit and may have developed a bond with the national park.

5. Conclusions

One of the keys to effective management of protected areas is the understanding of the characteristics of visitors and their perceptions of the tourism services and facilities and natural resources that attract them to visit [21]. The national park brand is one international marketing tool attracting people to park regions supporting regional economic development [8,20]. However, national park visitors are not homogeneous and may differ in the degree of national park affinity. Based on the national park affinity concept, parks can identify and quantify the affinity segments to get a better understanding of the park's current situation and role. One main aspect is visitor satisfaction with park tourism services and features and quality of the recreation experience per affinity segment to manage park tourism in a sustainable way.

The study found that about 60% of KYNP visitors were motivated by the national park brand and for more than 20%, the national park brand was even the dominating reason to come to the forest area. This study also found that the segments with different levels of national park affinity did not only differ in their characteristics, but also in their satisfaction with the national park trip, park services, crowding perceptions, and visitor loyalty, while no differences in their trip expenditures were found. The Interested NPV segment was consistently more satisfied with the park offers than the AV segment. The Interested NPV segment, accounting for 37.5% of all visitors, can be highlighted as the most loyal visitors, who stated the greatest willingness to return and make positive WOM recommendations because they were very satisfied with the forested national park. This segment may provide most societal support for KYNP. The smallest and most international segment, the Explicit NPV segment, mostly benefited the in-park tourism but was less satisfied with information provision. Providing more park information in English may have a positive impact on the level of satisfaction of this segment. The AV segment, the largest group among visitors, is not the target group of a national park, and in line with that, they were less satisfied with park offers and recreation quality and were less likely to return and make positive WOM recommendations because this segment may have other expectations for such a trip. Its expenditures support higher-class tourism facilities outside the park. Pre-park information is an important influence on the park experiences of visitors. Accordingly, park management may consider informing the AV segment about the goals of the park and in-park tourism services before entering in order to be aware of recreational activities and increase their recreational experiences.

The affinity concept is related to visitor characteristics, satisfaction, crowding perceptions, and visitor loyalty. The relationship of the affinity concept with visitor satisfaction seems not to be linear, as the Interested NPV was the most satisfied segment. This study analyzed differences in satisfaction and quality of recreation experience relying on the affinity concept. However, it is not only park affinity that can influence the level of satisfaction. Other factors may provide an explanation for why the Explicit NPV segment reported lower satisfaction levels on many park services than the Interested NPV. It seems that the results of the park affinity research can be often quite case-specific because of many individual local factors. Aggregated analyses across several affinity studies may provide additional information on influential factors.

Study findings can assist park managers, foresters, and scholars in their understanding of visitors and the tourism situation of this and other forest national parks. Overall, the park offered a good experience that satisfied most visitors. However, several of the park amenities received relatively low satisfaction scores. Addressing these often requires close cooperation with private companies in and outside the park. The establishment of communication platforms for a regular exchange might be helpful, as well as information on visitor surveys addressing park amenities. Currently, access to the park is dominated by private transport. Park management may develop strategies for improved access to the park by public transport and bicycle to support sustainable tourism. Extra bicycle lanes to and within the park may be considered. In this context, KYNP can be promoted as a sustainable camping holiday destination for families and friends.

The limitations of the study are related to the representativeness of the sample. Bicyclists appeared to be too tired after cycling uphill to the park to fill in the questionnaire, while most motorcyclists were not willing to interrupt their ride. The elderly group may be inadequately represented because they asked younger members of their family to answer the questionnaire instead of doing it themselves. Data collection did not cover the complete year and may have not collected information from all relevant visitors.

Future research may explore whether place attachment [71] and park affinity are related as an explanation for the high satisfaction levels of the Interested NPV. Moreover, future research may investigate the attitudes of the local communities, both residents benefiting and not benefiting from park tourism, towards the park management and park tourism as well as how the park tourism impacts their regional economy, local society and culture, and environmental values to understand what are the current perceptions of this important group of stakeholders. In addition, a permanent monitoring system could be established, observing tourism impacts on nature and local residents and surveying visitors' perceptions on a regular basis.

Author Contributions: Conceptualization, A.A., J.S. and R.C.B.; methodology, A.A. and J.S.; formal analysis, J.S.; data curation, J.S.; writing—original draft preparation, A.A. and J.S.; writing—review and editing, A.A., J.S. and R.C.B.; supervision, A.A.; funding acquisition, A.A. and J.S. All authors have read and agreed to the published version of the manuscript.

Funding: There was no external funding.

Institutional Review Board Statement: All subjects in the study were anonymously labeled and agreed to participate in the study. The study was conducted in accordance with the Declaration of Helsinki.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Restrictions apply to the availability of the data.

Acknowledgments: The authors would like to thank the former Head of Khao Yai National Park, Krissada Homsud, and the KYNP-administration for their help in supporting data collection. Special thanks also go to the Austrian Agency for International Mobility and Cooperation in Education, Science and Research (ÖAD).

Conflicts of Interest: The authors declare no conflict of interest.

References

- 1. Boyd, S. National parks: Wilderness and culture. In *A Companion to Tourism*; Lew, A., Hall, M., Williams, A., Eds.; Blackwell: Malden, MA, USA, 2004; pp. 473–483.
- Eagles, P.F.J. International trends in park tourism. In Proceedings of the EUROPARC Federation 2001, Matrei, Austria, 3–7 October 2001.
- 3. Palmer, C. Tourism and the symbols of identity. *Tour. Manag.* **1999**, *20*, 313–322. [CrossRef]
- 4. Balmford, A.; Green, J.; Anderson, M.; Beresford, J.; Huang, C.; Naidoo, R.; Walpole, M.; Manica, A. Walk on the wild side: Estimating the global magnitude of visits to protected areas. *PLoS Biol.* **2015**, *13*, e1002074. [CrossRef] [PubMed]
- 5. Eagles, P.F.J.; McCool, S.F. Tourism in National Parks and Protected Areas: Planning and Management; CABI Publishing: Wallingsford, UK, 2002.
- 6. Arnberger, A.; Eder, R.; Allex, B.; Sterl, P.; Burns, R.C. Relationships between national-park affinity and attitudes towards protected area management of visitors to the Gesaeuse National Park, Austria. *For. Policy Econ.* **2012**, *19*, 48–55. [CrossRef]
- Arnberger, A.; Eder, R.; Allex, B.; Preisel, H.; Husslein, M. National park affinity segments of overnight tourists differ in satisfaction with, attitudes towards, and specialization in, national parks: Results from the Bavarian Forest National Park. *J. Nat. Conserv.* 2019, 47, 93–102. [CrossRef]

- Mayer, M.; Müller, M.; Woltering, M.; Arnegger, J.; Job, H. The economic impact of tourism in six German national parks. *Landsc. Urban Plan.* 2010, *97*, 73–82. [CrossRef]
- Von Ruschkowski, E.; Arnberger, A.; Burns, R. Recreational use and visitor motivations at Torfhaus visitor area in Harz National Park, Germany. In Proceedings of the 6th International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, Stockholm, Sweden, 21–24 August 2012.
- 10. Iso-Ahola, S. Toward a social psychological theory of tourism motivation: A rejoinder. Ann. Tour. Res. 1982, 9, 256–262. [CrossRef]
- 11. Luo, Y.; Deng, J. The new environmental paradigm and nature-based tourism motivation. *J. Travel Res.* **2008**, *46*, 392–402. [CrossRef]
- 12. Park, D.B.; Yoon, Y.S. Segmentation by motivation in rural tourism: A Korean case study. Tour. Manag. 2009, 30, 99–108. [CrossRef]
- 13. Uysal, M.; Jurowski, C. Testing the push and pull factors. *Ann. Tour. Res.* **1994**, *21*, 844–846. [CrossRef]
- 14. Mokras-Grabowska, J. Mountain hiking in Tatra National Park. Turyzm 2016, 26, 71–78. [CrossRef]
- 15. Küpfer, I. Die Regionalwirtschaftliche Bedeutung des Nationalparktourismus: Untersucht am Beispiel des Schweizerischen Nationalparks; Department of Geography University of Zurich: Zurich, Switzerland, 2000.
- 16. Arnberger, A.; Brandenburg, C. Past on-site experience, crowding perceptions, and use displacement of visitor groups to a peri-urban national park. *J. Environ. Manag.* 2007, *40*, 34–45. [CrossRef] [PubMed]
- 17. Stynes, D.J. *Impacts of Visitor Spending on the Local Economy: Joshua Tree National Park*, 2004; Report Prepared for National Park Service; Michigan State University: East Lansing, MI, USA, 2006.
- 18. Stynes, D.J. *Impacts of Visitor Spending on the Local Economy: Yosemite National Park, 2005;* Report Prepared for National Park Service; Michigan State University: East Lansing, MI, USA, 2007.
- 19. Stynes, D.J. *Impacts of Visitor Spending on the Local Economy: Yellowstone National Park*, 2005; Report Prepared for National Park Service; Michigan State University: East Lansing, MI, USA, 2008.
- Littlejohn, M.A.; Hollenhorst, S.J. Grand Canyon National Park South Rim Visitor Study, Summer 2003; Visitor Services Project Report 144; University of Idaho-National Park Service: Moscow, ID, USA, 2004.
- 21. Obua, J.; Harding, D.M. Visitor characteristics and attitudes towards Kibale National Park, Uganda. *Tour. Manag.* **1996**, 17, 495–505. [CrossRef]
- 22. Müller, M.; Job, H. Managing natural disturbance in protected areas: Tourists' attitudes towards the bark beetle in a German national park. *Biol. Conserv.* 2009, 142, 375–383. [CrossRef]
- 23. Job, H. Estimating the regional economic impact of tourism to national parks: Two case studies from Germany. *GAIA- Ecol. Perspect. Sci. Soc.* **2008**, *17*, 134–142. [CrossRef]
- Bayer, J.; Fehringer, A.; Lehar, G.; Jurgeit, F.; Leitner, T. The relevance of visitors' national park affinity for effective visitor management in protected areas. In *Visitor Management in Tourism Destinations*; Albrecht, J.N., Ed.; CABI Publishing: Wallingsford, UK, 2017; pp. 75–87.
- 25. Lee, J.; Graefe, A.R.; Burns, R.C. Examining the antecedents of destination loyalty in a forest setting. *Leis. Sci.* 2007, *29*, 463–481. [CrossRef]
- 26. Tonge, J.; Moore, S.A.; Taplin, R.H. Visitor satisfaction analysis as a tool for park managers: A review and case study. *Ann. Leis. Res.* **2011**, *14*, 289–303. [CrossRef]
- 27. Rivera, M.A.; Croes, R. Ecotourists' loyalty: Will they tell about the destination or will they return? *J. Ecotour.* **2010**, *9*, 85–103. [CrossRef]
- 28. Taplin, R.H.; Rodger, K.; Moore, S.A. A method for testing the effect of management interventions on the satisfaction and loyalty of national park visitors. *Leis. Sci.* 2016, *38*, 140–160. [CrossRef]
- 29. Moore, S.A.; Rodger, K.; Taplin, R. Moving beyond visitor satisfaction to loyalty in nature-based tourism: A review and research agenda. *Curr. Issues Tour.* **2015**, *18*, 667–683. [CrossRef]
- Moore, S.A.; Rodger, K.; Taplin, R.H. Developing a better understanding of the complexities of visitor loyalty to Karijini National Park, Western Australia. *Tour. Manag.* 2017, 62, 20–28. [CrossRef]
- 31. Pearce, P.L. Tourist Behaviour: Themes and Conceptual Schemes; Channel View Publications: Clevedon, UK, 2005.
- 32. Oliver, R.L. Whence consumer loyalty? J. Mark. 1999, 63, 33-44. [CrossRef]
- Adachi, H.; Gokita, R.; Terasaki, T. A study of the impressive experience in Japanese national parks. In Proceedings of the 6th International Conference on Monitoring and Management of Visitors in Recreational and Protected Areas, Stockholm, Sweden, 21–24 August 2012.
- 34. Lovelock, C.H.; Patterson, P.G.; Walker, R.H. Services Marketing: An Asia-Pacific Perspective, 2nd ed.; Pearson Education: Sydney, Australia, 2001.
- 35. Som, A.P.M.; Badarneh, M.B. Tourist satisfaction and repeat visitation; toward a new comprehensive model. *World Acad. Sci. Eng. Technol.* **2011**, *5*, 239–246.
- 36. Dickman, S. Tourism: An Introductory Text, 3rd ed.; Hodder Headline: Sydney, Australia, 1997.
- 37. Weaver, D.B.; Oppermann, M. Tourism Management; Jacaranda Wiley: Milton, Australia, 2000.
- Akama, J.S.; Kieti, D.M. Measuring tourist satisfaction with Kenya's wildlife safari: A case study of Tsavo West National Park. *Tour. Manag.* 2003, 24, 73–81. [CrossRef]

- Espiner, S.R.; Wilson, J.W. The Visitor Experience at Franz Josef Glacier, Westland Tai Poutini National Park, New Zealand: Results from the 2013 Visitor Survey; Report Prepared for the West Coast Conservancy; Department of Conservation: Wellington, New Zealand, 2013.
- 40. Lovett, J. *Exmoor National Park State of Tourism Report 2008;* Report Was Commissioned by Exmoor National Park Authority; Exmoor National Park: Dulverton, UK, 2008.
- 41. Sivalioğlu, P.; Berköz, L. User satisfaction in national parks. Acad. Res. Int. 2012, 2, 537–548.
- 42. Taylor, P.A.; Grandjean, B.D. Visitor satisfaction and support for park fees: Examining the effects of frontcountry, backcountry, and information in Rocky Mountain National Park. *Georg. Wright Forum* **2009**, *26*, 12–21.
- Burns, R.C.; Graefe, A.R.; Absher, J.D. Alternate measurement approaches to recreational customer satisfaction: Satisfaction-only versus gap scores. *Leis. Sci.* 2003, 25, 363–380. [CrossRef]
- 44. Burns, R.C.; Graefe, A.R. Service quality measures: Recreationists' perceptions of US Pacific Northwest National Forests. *World Leis. J.* 2006, *48*, 40–51. [CrossRef]
- 45. Burns, R.C.; Arnberger, A.; von Ruschkowski, E. Social carrying capacity challenges in parks, forests, and protected areas: An examination of transatlantic methodologies and practices. *Int. J. Sociol.* **2010**, *40*, 30–50. [CrossRef]
- Shelby, B.; Vaske, J.J.; Heberlein, T.A. Comparative analysis of crowding in multiple locations: Results from fifteen years of research. *Leis. Sci.* 1989, 11, 269–291. [CrossRef]
- 47. Vaske, J.J.; Donnelly, M.P. Generalizing the encounter-norm-crowding relationship. Leis. Sci. 2002, 24, 255–269. [CrossRef]
- 48. Eder, R.; Arnberger, A. The influence of place attachment and experience use history on perceived depreciative visitor behavior and crowding in an urban national park. *Environ. Manag.* **2012**, *50*, 566–580. [CrossRef] [PubMed]
- 49. Manning, R.E.; Valliere, W.A. Coping in outdoor recreation: Causes and consequences of crowding and conflict among community residents. *J. Leis. Res.* **2001**, *33*, 410–426. [CrossRef]
- 50. Kalisch, D.; Klaphake, A. Visitors' satisfaction and perception of crowding in a German National Park: A case study on the island of Hallig Hooge. *For. Snow Landsc. Res.* **2007**, *81*, 109–122.
- Graefe, D.A.; Vogelsong, H. Crowding at Cape Lookout National Seashore: An examination of the influence of visitor characteristics on encounter norms and perceived crowding. In Proceedings of the 2008 Northeastern Recreation Research Symposium, Bolton Landing, NY, USA, 30 March–1 April 2008.
- 52. Arnberger, A.; Mann, C. Crowding in European forests: A review of recent research and implications for forest management and policy. *For. Int. J. For. Res.* **2008**, *81*, 559–571. [CrossRef]
- Tseng, Y.P.; Kyle, G.T.; Shafer, C.S.; Graefe, A.R.; Bradle, T.A. Exploring the crowding-satisfaction relationship between day and overnight users in the Lower Colorado River Basin, Texas. In Proceedings of the 2008 Northeastern Recreation Research Symposium, Bolton Landing, NY, USA, 30 March–1 April 2008.
- 54. Booth, K.L.; Cessford, G.R.; McCool, S.F.; Espiner, S.R. Exploring visitor experiences, crowding perceptions and coping strategies on the Milford Track, New Zealand. *Sci. Conserv.* **2011**, *313*, 91.
- Kalisch, D. Relevance of crowding effects in a coastal National Park in Germany: Results from a case study on Hamburger Hallig. J. Coast. Conserv. 2012, 16, 531–541. [CrossRef]
- 56. Bultena, G.; Field, D.; Womble, P.; Albrecht, D. Closing the gates: A study of backcountry use-limitation at Mount McKinley National Park. *Leis. Sci.* **1981**, *4*, 249–267. [CrossRef]
- 57. Manning, R.E. Studies in Outdoor Recreation: Search and Research for Satisfaction, 3rd ed.; Oregon State University Press: Corvallis, OR, USA, 2011.
- 58. Manning, R.; Valliere, W.; Minteer, B.; Wang, B.; Jacobi, C. Crowding in parks and outdoor recreation: A theoretical, empirical, and managerial analysis. *J. Park Recreat. Adm.* **2000**, *18*, 57–72.
- 59. Mose, I.; Weixlbaumer, N. A new paradigm for protected areas in Europe? In *Protected Areas and Regional Development in Europe: Towards a New Model for the 21st Century;* Mose, I., Ed.; Ashgate publishing: Aldershot, UK, 2007; pp. 3–19.
- 60. UNESCO World Heritage Centre. Available online: https://whc.unesco.org/en/list/590 (accessed on 15 August 2019).
- 61. DNP (Department of National Parks, Wildlife and Plant Conservation, Thailand). Available online: http://portal.dnp.go.th/ Content/nationalpark?contentId=11191 (accessed on 15 August 2019).
- 62. Adulyadej, B. Thai National Parks Act, B.E. 2504. R. Thai Gov. Gaz. 1961, 80, 1071.
- 63. Matlock, G.C.; Osburn, H.R.; Riechers, R.K.; Ditton, R.B. Comparison of response scales for measuring angler satisfaction. *Am. Fish. Soc. Symp.* **1991**, *12*, 413–422.
- 64. Wall Reinius, S.; Fredman, P. Protected areas as attractions. Ann. Tour. Res. 2007, 34, 839–854. [CrossRef]
- 65. Miazek, P. Causes of variations in the scale of tourism in Polish national parks. Turyzm 2020, 30, 71–83. [CrossRef]
- 66. Ballantine, J.L.; Eagles, P.F.J. Defining Canadian ecotourists. J. Sustain. Tour. 1994, 2, 210–214. [CrossRef]
- 67. Hatch, D. Understanding the Australian nature base tourism market. In *Australia's Ecotourism Industry: A Snapshot in 1998;* McArthur, S., Weir, B., Eds.; Ecotourism Association of Australia: Brisbane, Australia, 1998; pp. 1–5.
- Chan, J.K.L.; Baum, T. Motivation factors of ecotourists in ecolodge accommodation: The push and pull factors. *Asia Pac. J. Tour. Res.* 2007, 12, 349–364. [CrossRef]
- 69. Weaver, D.B. Hard-core ecotourists in Lamington National Park, Australia. J. Ecotour. 2002, 1, 19–35. [CrossRef]
- 70. Dixon, J.A.; Sherman, P.B. Economics of Protected Areas: A New Look at Benefits and Costs; Island Press: Washington, DC, USA, 1990.

71. Williams, D.R.; Vaske, J.J. The measurement of place attachment: Validity and generalizability of a psychometric approach. *For. Sci.* **2003**, *49*, 830–840.