

# National park visitors' attachment to a place, quality perceptions and visit intention

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**Abstract** - National parks are often national icons and destinations for nature tourists. Park tourism is seen as a substantial cultural, social and economic phenomenon, which is going to be even more important with decreasing space and expanding human populations. Structural changes, such as decreasing primary production, in the economic base of rural communities, have forced communities to seek alternatives in order to maintain their economic viability. Park tourism is identified as an opportunity to strengthen the rural economy in regions that can provide natural amenity values and recreation services. The case study from three national parks in Finland, Seitsemäinen, Linnansaari and Repovesi National Park, analyses how park visitors relate to the park and surrounding rural area. The purpose of the study was to examine how the place attachment with intervening factors of quality of services and recreation environment explain the intention to visit the area again in the future. Data (N=736) was gathered by a mail questionnaire for park visitors. The majority, 64-71% of visitors planned to visit the park in next five years and 55-68% the area. About 10% of the visitors felt attached to the surrounding countryside of a national park. Structural equation modelling (SEM) was applied here to test how the hypothesized causal structure fits to observed data. The preliminary results showed that place attachment interacted positively and statistically significantly with the perceived quality of services and recreation environment. Those who were keen to a place are more satisfied to the services and recreation environment. Park visitors' attachment to a region and satisfaction with the local services and hospitality correlated positively with their intention to revisit the region.

**Keywords** — Outdoor recreation, nature-based tourism, place attachment, rural tourism

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## 1 INTRODUCTION

Park tourism is in many policy documents identified as an opportunity to strengthen the rural economy in regions that can provide natural amenity values and recreation services. Park visitors are expected to bring the income flow to otherwise declining

economies. The magnitude of the tourism impact depends on the number of visitors and their expenditure in local and regional services and products. For the rural communities around parks new visitors are without doubt important, but also the intention of the previous visitors to visit the park and region again is more and more important. The new visit to the region and park associates with the use of local services and via the services an income flow to the local region.

The visit intention can be explained with two type of factors: those that associate with the visitor herself and those that correlate with the services and their quality. In previous literature the number of visits to a national park have been explained with travel costs but also with inner social psychological factors like attachment to the place [1]. The attachment to

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the place has found to be in connection to the visitors perception of service quality [2] and perceived social and environmental conditions [3]. However, the relative importance of these factors to visit intention is less studied issue.

From the park management perspective it is particularly important to know which recreation services affect the intention for future visit, and does the perceived quality of those services have an effect. When those services have been identified, a management policy and a plan to develop provision of recreation services and improve maintenance program is motivated. For decision making processes and financing it offers a knowledge based argumentation.

The aim of this study is to examine how the place attachment and perceived quality of tourism services and recreation environment explain the intention to revisit the area close to the national park. First goal is to identify whether there is any causal structure between these factors. It is expected that recreationists' level (strength) of attachment in the area, their experiences on the quality of services affect their intention to revisit the place. In addition, it is tested how place attachment interacts with service satisfaction and examined what is the relative importance of these two factors in explaining visit intention. An empirical model based on this structure is estimated to explain the intention to visit the area. Secondly, this structure is extended by including a variable of the travel costs and other socioeconomic variables into this scheme.

## 2 THEORETICAL FRAMEWORK

In this study we are particularly interested of place attachment and perceived service quality as predictors of visit intention. Place attachment means positive connection or bond between a person and a particular place and consists of two dimensions: place dependence and place identity. Concept of place dependence means more functional attachment

to a place and reflects importance of place in providing features and conditions for activities where as place identity reflects more emotional bond and symbolic importance of a place [3] and [4], [5], [6], [7].

Higher supply and performance quality of facilities are likely to improve visitor satisfaction and effect on behavioral intentions like loyalty [8] or visitors' destination selection [9]. Measurement of reported satisfaction consist of several dimensions like satisfaction with facilities (shops, transportation, lodging, restaurants etc.), satisfaction with services (like personnel's friendliness and willingness to serve), satisfaction with information (e.g. information of local events), and satisfaction with recreation experience (e.g. opportunities to recreate without feeling crowded) [10], as well as landscape and environment. In this study we are particularly interested of the association between perceived quality in three components of services, environment and personnel. The hypothesized associations between these components are shown in fig. 1.

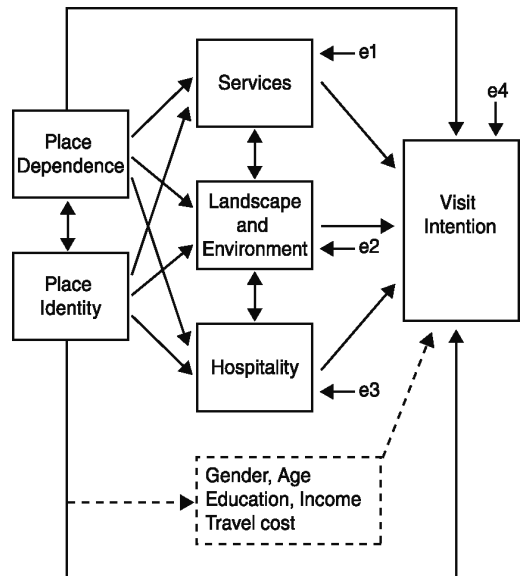


Fig. 1. The hypothesized model.

### 3 DATA AND METHODS

#### 3.1 Study Area

The empirical data used here was collected from Seitsemien and Linnansaari national park in 2006 and in Repovesi in 2007. The sampling season was from the mid May to the beginning of October. Altogether 736 respondents returned the inquiry and response rate was 72% in Seitsemien, 63% in Linnansaari and 68% in Repovesi national park. The park area and the surrounding countryside was presented in the map that was distributed together with the questionnaire. The natural element characterizing Linnansaari and Repovesi National Parks is water and scenery [11]. The Linnansaari park is located in the middle of the bigger lake area in Eastern Finland and Repovesi is surrounded by several smaller lakes. In Seitsemien National Park the forest is the most typical natural element.

All the parks are located in Southern Finland. In 2007 there were 44 000 visits to Seitsemien National Park, 29 000 in Linnansaari and 70 000 visits to Repovesi National Park [12]. The parks were established in three decades Linnansaari in 1956, Seitsemien in 1982 and Repovesi is one the newest parks in Finland –established in 2003. Linnansaari and Seitsemien provide high level of services inside the park where as in Repovesi they are less developed. The area close to Linnansaari national park are more urbanised and providing more services for visitors than municipalities close to Seitsemien and Repovesi [11].

#### 3.2 Variables

Place dependence (Cronbach's  $\alpha = 0.73$ ) and place identity ( $\alpha = 0.74$ ) were both measured with four items and the satisfaction attributes included 16 items. Perceived quality of services and recreation environment were divided into three groups based on the results of factor analysis. The first factor referred to satisfaction with facilities like shops, trans-

portation, lodging, restaurants etc., second factor was for landscape and environment and third factor consisted of items referring to local hospitality. For the analyses variables were transferred to a sum variable.

#### 3.3 Inferential analyses

Structural equations model is commonly described as combination of structural model and measurement model [13]. Firstly, hypothesized causal structure of the relationship between the variables was specified. Secondly, linear equations were written to transfer the structure into observational model. The third step was to define covariance between each pair of variables. Determining covariance are a way to express the path coefficients, variances and covariances that has to be estimated from the data. Fourth, free parameters were estimated by using ML-estimation. The data was analyzed with SAS proc calis procedure. Finally, the extent to which the covariances predicted by the model correspond to the observed covariances in the data were calculated by using  $\chi^2$ -statistic. Because there were not strong prior information of the studied subject, several competing structures were hypothesized and tested. The model selection was based on the several goodness of fit measures. For the  $p > \chi^2$  the value  $> 0.05$  indicates acceptable fit, for the comparative fit index (CFI), GFI Goodness of Fit Index, and Bentler and Bonett's normed fit index (NFI) values  $> 0.90$  indicate acceptable fit and for the root mean square error (RMSEA) values  $< 0.08$  indicate acceptable fit.

### 4. RESULTS

Majority of respondents reported their willingness to revisit the surrounding rural area (64%) and park itself (69%). Visitors in Seitsemien national park were most willing to visit the rural area in the near future and their differed statistically significantly of the visitors of Repovesi National park who were least interested to revisit surrounding countryside.

TABLE 1  
COMPARISON OF SEITSEMENINEN, LINNANSAARI AND REPOVESI NATIONAL PARKS

Variable	Park			Total	Chi-square Test (p-value)
	S	L	R		
% of visitors intend to revisit the area	68 <sup>A</sup>	64 <sup>AB</sup>	55 <sup>B</sup>	64	8.422 (0.015)
% of visitors intend to revisit the park	71	64	70	69	2.504 (0.286)
		Mean			F-Test (p-value)
Index for place dependency	10.5 <sup>A</sup>	11.5 <sup>B</sup>	10.7 <sup>AB</sup>	10.8	6.435 (0.002)
Index for place identity	12.6	13.1	12.6	12.8	1.066 (0.345)
Index for satisfaction in local tourism services	16.0 <sup>A</sup>	20.2 <sup>B</sup>	14.7 <sup>A</sup>	16.9	17.021 (<0.001)
Index for satisfaction in landscape and environment	16.6	17.2	16.8	16.8	2.587 (0.076)
Index for satisfaction in local hospitality	6.0 <sup>A</sup>	7.6 <sup>B</sup>	6.2 <sup>A</sup>	6.5	18.173 (<0.001)
Distance to travelled, km	233 <sup>A</sup>	497 <sup>B</sup>	208 <sup>A</sup>	264	27.096 (<0.001)
Personal travel cost, €	90 <sup>A</sup>	223 <sup>B</sup>	91 <sup>A</sup>	113	23.775 (<0.001)

Different symbols A, B and C indicate that the parks differ statistically significantly of each other at  $p < 0.05$  (Tukey)

The variables by parks are reported in Table 1.

The structural model consisted of two place attachment variables, three satisfaction variables and visit intention. All model fitting parameters indicated that the selected structure had acceptable fit to data (Table 2). Place dependence interacted positively and statistically significantly with all three quality factors. The model indicates that the positive place attachment increased satisfaction to tourism services. This is a logical result; those who felt that a particular region satisfied their needs for services and provided good opportunities for their activities, were more satisfied with the local services, environment and hospitality. Positive place identity (personal identity in relation to the physical environment e.g. "I identify strongly with this area") increased only satisfaction to local services. Place identity was not significantly related to environment or local hospitality. However, positive place attachment increased respondent's intention to visit the area in the future.

The overall effect emphasizes those who were already attached to the region/park and who were satisfied to local tourism services and hospitality were also

more likely to revisit the area. Among those visitors who were already attached to a place landscape and environment did not increase their intention the visit the region. The model indicates that place attachment with intervening factors of satisfaction to services most comprehensively explains ( $R^2=0.13$ ) the respondents intention to visit the national park vicinity.

According to hypothesized model socio-economic variables and travel costs were also tested in the model, but the acceptable fit with the data was not found. Female gender, higher education and travel costs decreased the intention to revisit the area but the effect was not statistically significant. Respondents higher income and age had an opposite effect and increased the intention to revisit the area.

## 5 CONCLUSIONS

In this study, place attachment was found to be useful concept when explaining park visitors' intention to revisit. It was shown that both inner social-psychological variables and perceived service satisfaction affected on visit intention. However, the

TABLE 2  
STRUCTURAL EQUATION MODEL

Predictor → Dependent variable	Standardised coefficient	T-value
Place dependence → Satisfaction in tourism services	0.2796	5.9480
Place dependence → Satisfaction in landscape and environment	0.1762	4.3955
Place dependence → Satisfaction in local hospitality	0.1963	4.9157
Place identity → Satisfaction in tourism services	0.1064	2.4042
Place dependence → Intention to visit	0.1313	2.6472
Place identity → Intention to visit	0.2095	4.3379
Satisfaction in tourism services → Intention to visit	0.0990	2.2374
Satisfaction in landscape and environment → Intention to visit	-0.0325	0.8020
Satisfaction in local hospitality → Intention to visit	0.0973	2.2428
Chi-Square		2.1125
df		2
Pr > Chi-Square		0.3478
CFI		0.9998
NFI		0.9970
GFI		0.9988
RMSEA		0.0097
N		604

T-values > 1.960 significant at  $p < 0.05$ ,  $T > 2.576$  significant at  $p < 0.01$  and  $T > 3.291$  significant at  $p < 0.001$

Squared multiple correlations: Intention to visit  $R^2 = 0.15$ , satisfaction in services  $R^2 = 0.13$ , satisfaction in landscape and environment  $R^2 = 0.031$ , and satisfaction in local hospitality  $R^2 = 0.039$

Correlations among exogenous variables: dependence - identity  $R^2 = 0.62$ ,  $e_1 - e_2 R^2 = 0.22$ ,  $e_1 - e_3 R^2 = 0.41$ ,  $e_2 - e_3 R^2 = 0.32$

relative importance of perceived service quality was less important than place attachment. Place attachment together with items measuring satisfaction could be developed to serve as a tool to measure the intention to visit a region surrounding national park in a visitor survey.

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