

Psychological benefits of visiting national parks in Japan

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Introduction

The role of national parks in Japan is to preserve beautiful scenic areas and their ecosystems as well as contribute to the health, recreation, and culture of society by promoting utilization of these areas. However, park management has tended to focus on conservation rather than utilization, because very few surveys have been undertaken on the psychological benefits that nature and its beauty bring to the people of Japan. Japanese researchers tend to select the forest environment as their research topic, studies that focus on satisfaction and benefits are still in the early stages (Ito, 2003). By contrast, research on the benefits of outdoor recreation is more advanced in Europe and the United States, and several studies have been conducted about managing activities and facilities to provide experiences that create benefits for individuals, the community, the economy, and the environment (Allen, 1996; Driver, 2008). However, the relationship between benefits and impressions which is defined as being deeply moved by beautiful and majestic scenery, is not known, because of the small number of studies focusing on impressive experiences in nature.

Thus, this paper aims to identify the characteristic psychological benefits enjoyed by the visitors to Japanese national parks and to contribute to the promotion of park utilization. The specific objectives are as follows:

- to identify the characteristic benefits gained from visiting Japanese national parks
- to reveal the relationship between benefits and activities
- to determine the relationship among benefits, impression, and satisfaction

Methodology

Data for this study were collected through a self-administered questionnaire method in four popular national parks in Japan (Shiretoko area, Nikko area, Kamikochi area, and Tateyama area). Questionnaires were handed out to a random sample of visitors in the parks. Visitors were asked to fill them out after their visit and return them by mail. Data collection was conducted from July to October 2011. Questionnaires were returned by 6,006 visitors, resulting in a 31.9% response rate.

The questionnaire items consisted of benefits, impression, satisfaction, destination loyalty, visitor characteristics, and visit characteristics. A benefit is defined as a change that is viewed to be advantageous – an improvement in condition, or a gain to an individual, a group, a society, or another entity (Driver, Brown and Peterson, 1991). Manning (2011) provided a list of the potential benefits of recreation. The authors selected 12 benefits which were considered in regard to visiting national parks from the list. Furthermore, in this study, “richness of life” is viewed as an overall benefit. Benefits, impression, satisfaction, and loyalty were measured using a seven-point scale.

Results

Benefits that had a six-point rating or above were “nature appreciation,” “enriching the mind,” and “environmental awareness and understanding.” These are the characteristic benefits attributed to visiting Japanese national parks.

Next, the authors examined the difference in benefits derived from various recreational activities. Prior to examination, factor analysis with promax rotation was used to explore the structure of 12 benefits. As a result, a scree plot indicated a two-factor solution. The two factors were labeled “zest for living” and “sense of familiarity with nature,” and all items had factor loadings of 0.40 or greater. A t-test was conducted to compare the mean factor score between the groups, that is, participants of each activity and non-participants. A statistically significant difference was found between the two groups for almost all activities. “Climbing,” “creative art,” and “camping,” especially, tend to lead to “zest for living.” On the other hand, “viewing scenery” and “hiking” lead to a “sense of familiarity with nature.” In addition, “viewing wild plants,” “viewing wild animals and bird watching,” and “visiting the visitor center” were reported to provide both benefits.

Finally, structural equation modeling (SEM) was used to examine the relationship among overall benefit, impression, and satisfaction. Satisfaction may have an effect on benefit (Driver, Brown and Peterson, 1991). The authors hypothesize that “Impression has a direct effect on satisfaction, and satisfaction has a direct effect on overall benefit.” As a result, impression has a strong effect on satisfaction ($\beta=0.62$, $p<0.01$); however, satisfaction has a weak effect on overall benefit ($\beta=0.12$, $p<0.01$). Impression has a direct effect on overall benefit ($\beta=0.41$, $p<0.01$). Furthermore, SEM is used to examine the relationship among overall benefit, “zest for living,” and “sense of familiarity with nature”; overall benefit was more affected by “sense of familiarity with nature” than it was by “zest for living.” Moreover, there is a greater effect on destination loyalty from overall benefit than from satisfaction.

Conclusion

An analysis of the results leads to the following conclusions:

- “Nature appreciation,” “enriching the mind,” and “environmental awareness and understanding” are characteristic benefits attributed to visiting Japanese national parks.
- There is a relationship between benefits and activities. The types of benefits (“zest for living” and “sense of familiarity with nature”) are different for each kind of activity.
- Impression has a strong effect on satisfaction, and satisfaction has a weak effect on overall benefit. Impression has a direct effect on overall benefit. Hence, benefit is stronger influenced from impression which is the evaluation of a point, than from satisfaction

Table I. Difference in mean factor scores between participants and non-participants in 16 activities

activities	【Factor1】zest for living			【Factor2】sense of familiarity with nature		
	Mean factor score of "participants"	Mean factor score of "not-participants"	Difference in mean factor score	Mean factor score of "participants"	Mean factor score of "not-participants"	Difference in mean factor score
Viewing scenery	0.01	-0.17	0.18 *	0.02	-0.43	0.44 *
Viewing wild animals/birdwatching	0.16	-0.06	0.23 *	0.16	-0.06	0.22 *
Viewing wild plants	0.14	-0.15	0.29 *	0.15	-0.17	0.32 *
Hiking	0.08	-0.10	0.18 *	0.12	-0.13	0.25 *
Climbing	0.24	-0.06	0.29 *	0.07	-0.02	0.09 *
Boarding a boat/sightseeing cruise	-0.01	0.00	-0.02	-0.01	0.00	-0.01
Attending interpretive program	0.15	-0.01	0.16 *	0.10	-0.01	0.11 *
Visiting visitor center	0.16	-0.04	0.20 *	0.15	-0.04	0.19 *
Visiting shrine and temple	0.00	0.00	0.00	-0.08	0.02	-0.10 *
visiting tourist facility	0.06	-0.01	0.06 *	0.02	0.00	0.02
Creative arts (photography, painting etc.)	0.24	-0.04	0.28 *	0.18	-0.03	0.21 *
Eating in restaurant	0.05	-0.05	0.10 *	0.03	-0.03	0.06 *
Shopping	0.00	-0.07	0.16 *	0.00	-0.07	0.14 *
Bathing a hot spring	0.02	-0.02	0.04	0.00	0.00	-0.01
Staying overnight in park or in its vicinity	0.03	-0.02	0.05	0.00	0.00	0.00
Camping	0.22	-0.01	0.24 *	0.03	0.00	0.03

*: p < 0.05

which is the evaluation of all points. In addition, strong benefits contribute to the promotion of national parks utilization.

However, there are some limitations to this study. First, this study was conducted at well known parks in Japan. Second, this study did not examine the effects of visitor characteristics. Future research should investigate these issues.

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