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An Exploratory Study of Environmental Values and Beliefs of Japanese Adventure Tourists in Hawaii

Adventure tourism and eco-tourism are becoming increasingly popular among travelers over the world. This case study identifies environmental perceptions of a random sample of Japanese (adventure) tourists on the Island of Oahu, Hawaii. The modified New Environmental Paradigm (NEP) scale (Dunlap & Van Liere, 1978) was utilized to measure environmental perceptions of travelers. Despite the small sample size, the data provided a general socio-demographic profile of Japanese adventure tourists, and their environmental perceptions. Study findings may serve to support resource management decisions for the development of adventure tourism that is believed to become a significant niche market in Hawaii.

Keywords: environmental attitudes, New Environmental Paradigm (NEP) scale, Japanese travelers, Hawaii

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INTRODUCTION

Adventure tourism is becoming increasingly popular among travelers, reflecting the global shift towards pro-active tourism. According to Inskip (1991), adventure tourism is defined as a “tourism whereby tourists engage in physically, personally challenging and sometimes dangerous (or perceived to be dangerous) activities” such as hiking, mountain climbing, river rafting, jet skiing, scuba diving, and parasailing. Adventure tourism development does not require large-scale or expensive facilities and infrastructure. However, careful organization, knowledgeable guide services, integrated transportation facilities and services, basic accommodation and catering facilities are essential.

Another important aspect of adventure tourism is that its planning, development or expansion need to be environmentally and socially suitable and marketable. One of the basic principles of adventure tourism planning is establishment of carrying capacities, as natural resources cannot withstand excessive use without degradation or even destruction. Adventure tourists themselves usually would not tolerate a high level of congestion. Therefore, adventure tourism planning should involve measures protecting tourism resources and enabling control over possible impacts.

THE NEW ENVIRONMENTAL PARADIGM

Recently there has been increased interest in environmental attitudes as psychographic predictors of participation decisions (Luzar, Diagne, Gan & Henning, 1998). In the context of adventure tourism, analysis of environmental values and beliefs of tourists engaging in specific activities defined earlier as “adventure tourism” activities, can provide resource management with the necessary tools to identify determining factors of participation in activities mentioned. In the long run, this data may as well serve as a helpful resource for adventure tourism

development in Hawaii.

The New Environmental Paradigm (NEP) scale was originally developed by Dunlap and Van Liere in 1978 to analyze environmental attitudes of various groups. In its original version, the scale utilized 12 Likert-type statements assessing environmental attitudes and beliefs that were considered unidimensional. The latter has been critiqued by many researchers, arguing that the NEP scale is rather a multidimensional construct, composed of at least three dimensions, namely: balance of nature, limits to growth, and the role of humanity in nature (Albrecht, Bultena, Hoiberg & Nowak, 1982; Geller & Lasley, 1985). Further research criticized an oversimplified interpretation of the high NEP scores as pro-environmental, arguing that its statements are more complex, therefore an agreement with the statement may reflect a limited understanding of environmental problems, rather than indicate support of a paradigm (Lalonde & Jackson, 2002). The third critique of the paradigm emphasized its limits with respect to the anachronic wording of items (all but 4 of the 12 items were originally worded in a pro-environmental direction) and its inability to capture an increasingly thorough tourists' understanding of the nature and scope of environmental problems (Lalonde & Jackson, 2002; Luzar, Diagne, Gan & Henning, 1998). Despite the criticisms, the NEP scale remains useful for studying pro- and anti- environmental attitudes. The scale may help to better understand psychographic factors in tourism research, planning and development, relative to adventure tourism.

THE PURPOSE OF THE STUDY

This exploratory study focuses on Japanese “adventure travelers” to Hawaii, who are likely to become a significant niche market in the near future. It identifies socio-demographic

characteristics of Japanese adventure tourists, examines their current behaviors and environmental perceptions, and interests for participation in adventure tourism.

METHODOLOGY

Data were obtained from a random sample of 110 Japanese travelers, who were participating in selected adventure tours on the Island of Oahu. A self-administered survey questionnaire was initially written in English and then translated into Japanese, resulting in a 63% response rate (n= 69 subjects). Eight value statements were adopted from the NEP framework in order to measure environmental attitudes of study participants. Respondents were asked to answer each of the statements on a 5-point Likert-type scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree).

RESULTS: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS

The majority of study participants were female (53.6% of respondents), and 45% of the respondents were married. The age distribution of respondents was as follows: almost 32% of respondents were 20 to 29 years old, about 22% were 30 to 39 years old, 13% were 60 to 69 years old, and almost 12% were 70 to 79 years old. The average age of respondents was 40.8 years old.

Nearly 40% of study participants reported to have a high school education; 32% four-year college or higher; 16% two-year college, 4% junior high school and 1.4% of respondents were college graduates or Ph.D. holders. Almost half (42%) were employed full-time, 17.4% were retired, 7% were students and 3% employed part-time. The remaining 20% indicated their occupation as “other”.

RESULTS: ENVIRONMENTAL VALUES AND BELIEFS

Table 1 reports the distribution of responses for each of the environmental statements utilized, in percentages, along with the mean scores on a 5-point scale. Overall, respondents showed a high degree of acceptance of all NEP dimensions offered. Interpretation of the findings follows (in order of NEP dimensions).

“Balance of nature”: most of respondents agreed or strongly agreed with all three items (all mean scores were greater than 3.0). “Limits to growth”: respondents showed an overall positive attitude towards all three items in this sub-scale, although mean scores were lower compared to the “balance of nature” NEP dimension. However, 41% answered “neutral” to “We are approaching the limit to the number of people that the earth can support.” Over 20% of respondents disagreed with “There are limits to growth beyond which our industrialized society cannot expand.” The high negative percentages might be explained by the fact the terms used in the scale were developed in the 1970’s, and might be perceived differently today (Lalonde and Jackson, 2002). “Humanity over nature”: respondents’ indicated a rejection of the items (both mean scores were lower than 3.0). At the same time, responses were widely distributed within the “neutral”/“disagree”/“strongly disagree” categories (see Table 1).

Table 1. Distribution of responses for the NEP scale statements (percentages) and mean scores.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Mean Score*
BALANCE OF NATURE (3 items)						
<i>Human must live in harmony with nature in order to survive</i>	41.9	53.2	0	1.6	3.2	4.3
<i>When humans interfere with nature, it often produces disastrous consequences</i>	38.1	54	4.8	0	3.2	4.2
<i>The balance of nature is very delicate and easily upset</i>	23.8	49.2	14.3	7.9	4.8	3.8
LIMITS TO GROWTH (3 items)						
<i>The earth is like a spaceship with only limited room and resources</i>	39.3	45.9	11.5	0	3.3	4.2
<i>We are approaching the limit to the number of people that the earth can support</i>	16.4	34.4	41	1.6	6.6	3.5
<i>There are limits to growth beyond which our industrialized society cannot expand</i>	15.3	40.7	23.7	13.6	6.8	3.4
HUMANITY OVER NATURE (2 items)						
<i>Mankind was created to rule over the rest of nature</i>	8.2	14.8	34.4	26.2	16.4	2.7
<i>Humans have the right to modify the natural environment to suit their needs</i>	3.3	6.6	31.1	27.9	31.1	2.2

*Scale 1-5: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree

CONCLUSIONS

This exploratory study of Japanese adventure travelers on the island of Oahu in Hawaii, provides an initial insight of Japanese adventure tourists to the island of Oahu. Hypothetically, socio-demographic and socio-economic characteristics of visitors can influence adventure tourism participation. Knowledge of the market can support resource management decisions throughout all stages of adventure tourism development and marketing in Hawaii. Currently, study findings suggest Japanese adventure travelers to Hawaii are predominantly married adults, employed full-time, having a high school/college educational background. Therefore, adventure tourism providers might want to focus on this demographic group, at the same time exploring

other populations of younger travelers who might potentially enter the adult adventure tourism markets in the near future.

Both adventure tourism and eco-tourism are important emerging tourism markets. As such, not only knowing the market, but also knowing the environmental attitudes of the target audience can provide management with the tools for proper development of programs and activities, as well as the information to balance adventure tourism development with environmental conservation efforts. Therefore, the other emphasis of the study was to assess environmental values and beliefs of its participants. Overall, survey respondents expressed high environmental consciousness and understanding of the major ecological concerns (as stated in the NEP scale). Although researchers believe that investigation of such a complex domain as ecology and environmental perceptions of travelers, requires a multidimensional approach, the NEP scale adopted by this study, has helped shed light on how Japanese adventure travelers feel and what they think about the environment.

Previous studies established that education and age are significantly and consistently correlated to environmental attitudes (Luzar, Diagne, Gan & Henning, 1998). Therefore, further investigation of adventure travel markets and comparative niche markets, using larger samples, is highly recommended. The value of investigating adventure travel markets using the NEP scale relates to the direction of tourism policy and future strategies. In terms of informing policy makers, if the adventure travel market is an important niche market, then it would suggest to policy makers that adoption of policies which protect the resource base may be an important strategy for the future.

REFERENCES

- Albrecht, D., Bultena, G., Hoiberg, E., & Nowak, P. (1982). The New Environmental Paradigm scale. Journal of Environmental Education, 13, 39-43.
- Dunlap, R.E., & Van Liere, K. (1978). The New Environmental Paradigm: A proposed measuring instrument and preliminary results. Journal of Environmental Education, 9, 10-19
- Geller, J. M., & Lasley, P. (1985). The New Environmental Paradigm: A reexamination. Journal of Environmental Education, 17, 9-12.
- Inskeep, E. (1991) Tourism planning: An integrated and sustainable development approach. New York: John Wiley & Sons, Inc.
- Lalonde, R., & Jackson, E.L. (2002). The New Environmental Paradigm scale: Has it outlived its usefulness? The Journal of Environmental Education. Retrieved December, 2004 from <http://www.uga.edu/bahai/2002/020701-2.html>
- Luzar, J.E., Diagne, A., Gan, C.A.C., & Henning, B.R. (1998). Profiling the nature-based tourism: a multinomial logit approach. Journal of travel research, 37, 48(8).