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## **A Study of the Impact of Tourism Economic and Non-economic Benefits on Residents' Pro-Environmental Behaviors in Community-based Ecotourism**

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A STUDY OF THE IMPACT OF TOURISM ECONOMIC AND NON-ECONOMIC BENEFITS ON  
RESIDENTS' PRO-ENVIRONMENTAL BEHAVIORS IN COMMUNITY-BASED ECOTOURISM

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#### Abstract

A survey was conducted on 362 residents of a classical ecotourism destination in China to explore the impacts of both tourism economic and non-economic benefits on residents' pro-environmental behaviors. The results of Structural Equation Modeling (SEM) indicated that tourism economic and non-economic benefits impacted on residents' pro-environmental behaviors through perceived positive tourism impact as a mediator. These findings enriched literatures in ecotourism and had managerial value for the practitioners in domestic ecotourism community.

Key words: Tourism benefits, Perceived tourism impact, Residents, pro-environmental behaviors, Community-based ecotourism

#### Introduction

Community residents are the key stakeholder of ecotourism and the main undertaker of tourism economic impact. The residents' perceived tourism impacts are affected by many factors among which tourism benefits are critical (Andereck et al., 2005) and have been distinguished into two components: economic benefits and non-economic benefits (Stronza and Gordillo, 2008). In both economic and non-economic perspective, few attempts have been made to empirically test the relationships among tourism benefits, perceived tourism impacts and local residents' pro-environmental behaviours of community-based ecotourism (Jones, 2005; Stronza and Gordillo, 2008). The potential mediating effect of perceived tourism impacts was investigated in the present study to illustrate the arguments of the relationship between tourism benefits and residents' pro-environmental behaviours.

#### Literature Review

The definition of ecotourism by International Ecotourism Society (1991) clearly indicated that the cores of ecotourism were "responsible tourism" and "maintain residents' living quality." Residents are the key stakeholder in community-based ecotourism and obtain various benefits from tourism through the

increased opportunities of employment, investment and business (Liu and Var, 1986; Haralambopoulos and Pizam, 1996), improvements of life quality and work attitude (Kinnaird and O'Brien, 1996).

Tourism benefits was traditionally restricted as the economic income which was gained by community residents' participation in ecotourism (Andereck, Valentine, Knopf et al., 2005). Previous researchers focused on the economic benefits of ecotourism including the employment income and the cash flow from the tourism (Stronza and Gordillo, 2008). The economic benefits can motivate the residents' environmental behaviours in a short time, however, it is relatively difficult to change residents' value and attitude towards environment (Stem et al., 2003). Namely, that economic benefits from ecotourism do not necessarily lead to residents' conservation support or action (Kiss, 2004), and even weaken the trust and cohesion of the community while residents lacked of social management experience (Jones, 2005). Therefore, as a member of the community, residents also tend to express their opinions, to participate in the management and decision-making of the community. The term of non-economic benefits refers to community residents' participation in the management of community's daily affairs and property rights (Stronza and Gordillo, 2008). In this paper, non-economic benefits include residents' ecotourism training, participating in decision-making of ecotourism development, and sharing their opinions on ecotourism planning and development. Four hypotheses were proposed: tourism economic benefits have significant positive impact on perceived positive tourism impact (Hypothesis 1a); tourism economic benefits have significant negative impact on perceived negative tourism impact (Hypothesis 1b); tourism non-economic benefits have significant negative impact on perceived positive tourism impact (Hypothesis 2a); tourism non-economic benefits have significant positive impact on perceived negative tourism impact (Hypothesis 2b).

Little research attempted to test the impact of perceived tourism impact on residents' pro-environmental behaviours (Scheyvens, 1999; Belsky, 1999; Kruger, 2005; Spiteri and Nepal, 2006), especially to explore whether it mediates the relationship between tourism benefits and residents' pro-environmental behaviours. Through community participation, residents' perceived tourism impact could change the community development orientation. Thus, we propose: perceived positive tourism impact has significant positive impact on residents' pro-environmental behaviours (Hypothesis 3a) and negative impact on residents' pro-environmental behaviours (Hypothesis 3b).

## Method and Results

The measurement scales used in the study were adopted from the previous researches and had some modifications to adapt to the current research context. A field survey was conducted at a national 4A level ecotourism landscape destination in China during March 2010. 400 questionnaires were distributed and 362 usable questionnaires were returned (response rate of 90.5%). The majority of the respondents is female (58%) at age 30 or below (66.3%). In according to the two-step SEM approach suggested by Anderson and Gerbing (1988), a CFA was conducted and the results showed that the level of internal consistency in each construct ranged from 0.58 to 0.85 (Choi et al., 1999). Based on the results of the CFA, the authors used statistical analysis software Lisrel 8.70 to estimate maximum likelihood of a structural equation model with five constructs. The proposed model fits the data well:  $\chi^2_{(70)} = 190$  ( $p < 0.01$ ), NFI=0.86, CFI=0.91, GFI=0.93, and RMSEA=0.069.

Four out of six hypotheses were supported. For H1a, tourism economic benefits had a significant positive effect on perceived positive tourism impact (0.42,  $t=4.35$ ,  $p<0.01$ ). However, H1b is not supported, which showed that tourism economic benefits had insignificant positive effect on perceived negative tourism impact ( $t=-1.64$ ). This finding was consistent with the previous researches. Second, tourism economic benefits have strong positive effect on perceived positive tourism impact, while tourism non-economic benefits had a significant effect on both perceived positive and negative tourism impact. Thus H2a and H2b are all supported. Perceived positive tourism impact, as hypothesized, showed a significant positive effect on residents' pro-environmental behaviours, supporting H3a. The optimistic perception of tourism impact could lead to residents' active environmental behaviours. Thus, H3b is not supported. Moreover, the results showed both tourism economic and non-economic benefits had indirect effect on residents' pro-environmental behaviours. This finding confirmed the previous assumptions of

the relationship between tourism economic benefits and residents' pro-environmental behaviours. Tourism economic benefits could not guarantee for residents' environmental actions, unless perceived positive tourism impact mediating between them.

## Conclusions and Implications

Findings of this research suggest that, especially perceived positive tourism impact, could serve as a mediator between both tourism economic and non-economic benefits and residents' pro-environmental behaviours. While the link between tourism economic benefits, perceived negative tourism impact and residents' pro-environmental behaviours are insignificant. The different results drew a consensus point that the residents' share of tourism economic benefits could not guarantee for their environmental behaviours. Perceived tourism impact has powerful influence on their environmental behaviours.

Previous studies in community-based ecotourism mostly focused on the measurable economic benefits but ignored other factors. The discussion of tourism benefits in both economic and non-economic perspectives not only served to illustrate the argument but also provide the managerial approach to motivate residents' pro-environmental behaviours. It noted that residents' perceived tourism impact and pro-environmental behaviours rely on the tourism non-economic benefits. Future research could consider externality caused by economic incentives, or explore the impacts of different dimensions of tourism non-economic benefits.

Practically, community-based ecotourism has been popularly promoted for its potential to reconcile environmental protection with local economic benefits. In this research, tourism non-economic benefits and perceived tourism impact were shown to be the central to community-based ecotourism, with which community managers could effectively encourage residents' collective behaviours, and target perceived tourism impact with positive potential. The findings will also provide recommendations to residents on how to improve their non-economic benefits, such as ecotourism managerial skills, training and learning. Such recommendations will help them to enhance the stable and effectiveness of their community and thus contribute to community's economic, social and environmental development.

There are a few limitations in this research. Current study measured tourism non-economic benefits as a whole perception, and future researchers could explore the relationship between each dimension of tourism non-economic benefits and perceived tourism impact. In addition, the mediating role of three different dimensions of perceived tourism impact could be tested. Moreover, the data collection of this research was attained from a single survey. Inevitably, it may cause common method variance. A longitudinal study with the mixed method design would be ideal for further investigating the residents' participation in the development of community-based ecotourism.

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