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## A Study of Effects of Ecotourism Environment Image and Word of Mouth on Tourism Intention

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### Abstract

After being satisfied with material life, the citizens have ample economic ability and time to stress on leisure life and participate in recreation activity. To cope with such demands, ecotourism naturally becomes an alternative choice of tourism for many people. Under the sustained-yield management, a lot more of ecotourism issues are discussed. In face of the competitive tourism market, it becomes primary for tourism industry effectively developing regional tourism resources, enhance the construction of ecotourism environment image, and deliver necessary information for more attractive environment image to drive customers' "intention" to visit. Taking ecotourism visitors in Fujian Province as the research samples, the questionnaire are distributed on-site. Total 322 valid copies of questionnaire are retrieved, with the retrieval rate 77%. The research results show significantly positive correlations between 1.environment image and word of mouth, 2.word of mouth and tourism intention, and 3.environment image and tourism intention. According to the results, suggestions are proposed in this study, expecting to effectively enhance the competitiveness of domestic ecotourism in the competitive tourism market and achieve sustained-yield management.

**Keywords:** ecotourism, environment image, word of mouth, tourism intention

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### INTRODUCTION

Tourism industry presents major influence on the economic and social development of a country. Openness to tourism industry could enhance business trade and investment, create the employment and entrepreneurship opportunities for the citizens, and further protect national cultural heritage and value. After being satisfied with the material life, the citizens have abundant economic ability and time to stress on leisure life and participate in recreation activity. "Natural landscape appreciation" appears the highest proportion in the public engaging in recreation activity, followed by "cultural experience". To cope with above needs, ecotourism becomes many people's alternative choice for tourism. Moreover, ecotourism refers to visiting a natural area without being interfered or polluted for special objectives, appreciating and experiencing the wild animals and plants, and concerning about the cultural contents discovered in the area, tending to natural conservation and environmental protection, and achieving the least impact on the environment and culture in the tourism destination. Visitors, when enjoying the natural activity,

would learn to conserve local resources, feedback to community development, and achieve the ideal of sustained-yield management. Under sustainable tourism, a lot more issues related to ecotourism are discussed.

In face of the more competitive tourism market, destination marketing becomes a brand-new idea. The originally independent operation and planning of marketing strategies of relevant sub-industries in the destination are changed into integrated and comprehensive marketing promotion. It aims to maximize the benefits of the destination as well as reduce various impacts of tourism development on the area. In the reports of sightseeing spot visitors' experience behaviors, tourism environment image is an important idea, as it would affect visitors' decisions and choices before the tour, evaluation after the tour, and future decisions. It is primary for tourism industry to effective develop regional tourism resources, increase the construction of ecotourism environment image, deliver essential information to have the environment image present attraction to customers' motivation of

“intending” to visit. The effects of ecotourism environment image and word of mouth on tourism intention are therefore discussed in this study, expecting to effectively enhance the competitiveness of domestic ecotourism in the competitive tourism market and achieve the objective of sustained-yield management.

## LITERATURE REVIEW

### Environment Image

Chon (2015) referred image to humans' belief in surrounding environment and symbols of things. Symbols referred to an experience meaning being “changed” to another medium. Frangos et al. (2015) defined image as an individual, through direct or indirect experiences, forming the spiritual performance on the known external conditions, which were integrated by several separated elements and according to specific elements. Schultz and Schultz (2016) explained image as an abstract idea above knowledge, including past experiences and present stimulation. Boley et al. (2017) regarded environment image as individual spiritual drawing about generalized external world. Such an image was the memory product of direct feeling and past experience and was used for interpreting information and defining actions. A clear image could provide materials for the collective memory of symbols and group communication. Nugrohoet al. (2016) divided an environment image into three factors of identity, structure, and meaning and considered that the three factors existed at the same time. A user therefore separated the difference in the environment to acquire sense of direction and organize activities as well as provide groups with common memories and emotion about the environment, where identity referred to the character of the place. Unobvious identity might be ignored in the image forming process. Idajati et al. (2016) indicated that an image should have an object pattern and was mutually correlated to other objects; such mutually correlated characteristics were the structure, helping people link with societies.

Referring to the opinions of Lee and Choi (2017), three major dimensions are covered when placing image in the environment in a sightseeing spot.

- (1) **Awareness:** referring to all information with which visitors know about tourism products.
- (2) **Attitude:** referring to visitors' feelings about and beliefs in tourism products.

- (3) **Expectation:** referring to the benefits from which visitors expecting to acquire from tourism products.

### Word of Mouth

Chow (2016) described it as the oral and face-to-face communication between receivers and communicators, and communicators, under non-commercial intention, delivered the information of brands, products, or services to receivers, i.e. the interaction and exchange between message communicators and message recipients. Some research simply defined word of mouth as the medium for one-to-one and face-to-face exchange of product and service information (Miller et al. 2015). Aljoudimi et al. (2015) regarded “word of mouth” as the personnel oriented message communication and non-commercial communication or recommendation of products, brands, or services orally. Sasu and Epuran (2016) referred word of mouth intention to consumer belief, i.e. consumers discussing the occurred or encountered events and experiences with others without directly contacting with the service. César and Sylvia (2015) pointed out word of mouth as the overall evaluation of brands and the sum of comments among people about specific products, services, or companies. Different from traditional marketing, word of mouth would change the key points of the market from the relationship between brands and individual customers to the interaction relationship among customers. Moreover, “word of mouth suggestions” did not show commercial motivation that consumers would consider the higher reliability of “word of mouth suggestions” than advertisement (Gupta and Rout 2016).

Referring to Peng et al. (2017), word of mouth is divided into following dimensions in this study.

- (1) **Internal information:** When making purchase decisions, an individual would search for relevant information from the long-term memories; such information is personal experience.
- (2) **External information:** Credible groups (e.g. Taiwan Visitors Association) would announce information influential to individuals.

### Tourism Intention

Lee and Hsieh (2016) regarded tourism intention as visitor intention to play, i.e. purchase intention. Hultman et al. (2015) further explained it as the purchase intention of tourism products. Pires et al. (2016) pointed out tourism intention as visitor intention to visit a scenic spot. Auesriwong et al. (2015)

explained tourism intention as visitors being interested in a tourism destination and appeared the intention to visit. Kang et al. (2002) regarded tourism intention as the most important process and behavior to affect tourism destinations that visitors could practice the tourism plan and visit the tourism destination after the appearance of tourism motivation. Dudovsky (2016) explained it as the important process and behavior to achieve the tourism objective. In other words, visitors, after the generation of motivation, would apply choices to the attitude target for fulfilling the tourism belief to generate specific tourism consumption behavior. Styliadis et al. (2017) regarded tourism intention as the possibility of an individual subjectively evaluating the internal and external factors to pre-consider, prepare plans, or take actions for future tourism activities. Masud et al. (2017) described that visitors, after receiving the information of tourism destinations, would evaluate various factors and make plans to form tourism intention. It therefore was the possibility of visitors preceding such activities.

In sum, referring to the definitions and scales made by Chiang (2016), a single dimension of visitor intention to play, i.e. purchase intention, is applied to measure tourism intention in this study.

## **ESTABLISHMENT OF RESEARCH HYPOTHESIS AND DESIGN OF EMPIRICAL RESEARCH METHOD**

### **Research Hypothesis**

Luo and Zhong (2015) considered that image was similar to a mind map; visitors presenting environment image of a destination was the mind map of the destination environment, which would affect visitors' tourism behaviors in touring spots. Karavasilis et al. (2015) explained that visitors with positive environment image on the destination would enhance the participation intention. In this case, Lee and Choi (2017) pointed out the positive effects of destination environment image on future behavioral intention (word of mouth and revisit intention). On the contrary, Chon (2015) indicated that visitors with negative environment image of the tourism destination would not deliver relevant word of mouth to others or visit the place again. The following hypothesis is therefore established in this study.

**H1:** Environment image shows significantly positive correlation with word of mouth.

Sun and Gao (2015) discovered that about 60% new customers of a company was influenced by word of

mouth. Apparently, word of mouth could affect consumer intention. Chow (2016) mentioned that word of mouth was the direct face-to-face and non-commercial communication behaviors among people who exchange information by discussing specific products or services to further affect consumers' evaluation and consumption intention. Kazeminia et al. (2016) indicated that comments and word of mouth could reduce consumers' risks and uncertainties in the purchase of products or services to further affect the purchase intention and decision-making. Sasu and Epuran (2016) regarded purchase intention as a series of decision-making process with other consumers' opinions, through word of mouth, as the decision-making criteria. Aiming at the effects of foreign backpackers' word of mouth, needs, experiences, and image on tourism decision-making, Stylos et al. (2016) found out positive correlations between word of mouth contents and tourism intention. Peng et al. (2017) considered that word of mouth could strengthen social benefits; products with more word of mouth could acquire more identification and participation; word of mouth showed effects on the purchase decision-making process. Accordingly, the following hypothesis is established in this study.

**H2:** Word of mouth reveals remarkably positive correlations with tourism intention.

Wang (2015) indicated that tourism environment image would affect visitors' subjective cognition and eventually influence the behavior and destination choice. A tourism destination environment image being able to provide deep image for visitors could out-stand other competition to become the tourism destination of visitors' choice (Kiumarsi et al. 2015). Lee and Hsieh (2016) indicated that a tourism destination being able to attract large crowds relied on people's positive feelings of the environment image to induce the tourism intention and attract visitors' visit for experience. Chiang (2016) proved that tourism environment image was largely affected by individual motivation. Before a tour, visitors would form the image and evaluation of the tourism destination through environmental cognition image and environmental emotion image. When the environment image of a tourism destination conformed to visitors' motivation or benefit seeking, they would present tourism intention to visit the tourism destination (Pires et al. 2016). The following hypothesis is therefore established in this study.

**H3:** Environment image appears notably positive correlations with tourism intention.

**Table 1.** Analysis of environment image to word of mouth

dependent variable → independent variable ↓	word of mouth			
	internal information		external information	
environment image	Beta	t	Beta	t
awareness	0.237	2.411**	0.222	2.304**
attitude	0.226	2.316**	0.216	2.224**
expectation	0.241	2.533**	0.238	2.425**
F	34.227		39.158	
significance	0.000***		0.000***	
R2	0.314		0.383	
adjusted R2	0.287		0.361	

Note: \* stands for p<0.05, \*\* for p<0.01, and \*\*\* for p<0.001  
Data source: Self-organized in this study

### Research Object

Aiming at visitors to ecotourism in Fujian Province ecotourism, the questionnaire is distributed on-site. Total 322 valid copies are retrieved, with the retrieval rate 77%.

## ANALYSIS RESULT

### Reliability and Validity Analysis

With factor analysis, environment image is extracted three factors of “awareness” (eigenvalue=3.462,  $\alpha=0.88$ ), “attitude” (eigenvalue=2.841,  $\alpha=0.90$ ), and “expectation” (eigenvalue=2.337,  $\alpha=0.89$ ). The commonly accumulated variance explained achieves 79.457%.

With factor analysis, word of mouth is extracted two factors of “internal information” (eigenvalue=2.277,  $\alpha=0.91$ ) and “external information” (eigenvalue=2.063,  $\alpha=0.90$ ). The commonly accumulated variance explained reaches 84.533%.

Tourism intention, through factor analysis, is extracted a factor (eigenvalue=5.762,  $\alpha=0.92$ ) with the commonly accumulated variance explained achieving 86.713%.

### Correlation Analysis of Environment Image and Word of Mouth

To test H1, the analysis result, **Table 1**, shows significant effects of awareness (t=2.411\*\*), attitude (t=2.316\*\*), and expectation (t=2.533\*\*) on internal information as well as remarkable effects of awareness (t=2.304\*\*), attitude (t=2.224\*\*), and expectation (t=2.425\*\*) on external information that H1 is supported.

### Correlation Analysis of Environment Image, Tourism Intention, and Word of Mouth

#### Correlation analysis of environment image and tourism intention

To test H3, the analysis result, **Table 2**, appears significant effects of awareness (t=2.412\*\*), attitude

**Table 2.** Analysis of environment image and word of mouth to tourism intention

dependent variable → independent variable ↓	tourism intention			
	Beta	t	Beta	t
environment image	Beta	t	Beta	t
awareness	0.233	2.412**		
attitude	0.241	2.513**		
expectation	0.256	2.647**		
word of mouth				
internal information			0.251	2.623**
external information			0.227	2.334**
F	37.553		41.281	
significance	0.000***		0.000***	
R2	0.356		0.402	
adjusted R2	0.341		0.388	

Note: \* stands for p<0.05, \*\* for p<0.01, and \*\*\* for p<0.001  
Data source: Self-organized in this study

(t=2.513\*\*), and expectation (t=2.647\*\*) on tourism intention that H3 is supported.

### Correlation analysis of word of mouth and tourism intention

To test H2, the analysis result, **Table 2**, presents remarkable effects of internal information (t=2.623\*\*) and external information (t=2.334\*\*) on tourism intention that H2 is supported.

## CONCLUSION

The research results reveal that ecotourism visitors would search relevant data about the tourism destination with complete network search functions. The pictures of touring spots might be searched and local environment image is judged according to personal preference to further affect the tourism intention. Searching on the Internet is the most convenient way to acquire information of tourism destinations, while it is not necessary the most reliable way. Visitors’ tourism destination image therefore might become the next word of mouth deliverer. Effects of traditional word of mouth could not be neglected. Ecotourism could also be regarded as service industry, whose services aim at product use and introduction or satisfies customer needs with technical services so that customers appear the feeling like home. Unlike going to restaurants or department stores, ecotourism is an intangible product, without service personnel. Instead, people might expect to relax at the destination, create memories, and change the space and time in daily work and schools as the needs for ecotourism. With the creation of special environment image landscapes, different climate, and even unique historical and geographic status, ecotourism visitors could have distinct feelings from the ordinary in the tourism destination; and, the recreation activity could enhance the relationship among family members and friends and relieve work pressure. For this reason, visitors would naturally tend to spiritual and inner feelings when

selecting non-physical tourism products. Word of mouth tourism experience sharing therefore could assist in constructing the virtual experience in the environment image before the visit. Besides, word of mouth could help the establishment of tourism image.

### SUGGESTION

Aiming at above research results, the following suggestions are proposed in this study.

1. Ecotourism management units are suggested developing toward in-depth cultural experience and creating opportunities to contact culture so that the attraction of tourism destinations is not restricted to the external environment image, but local cultural contents could be presented through proper channels or platforms. Moreover, local indoor exhibition halls or specific outdoor experience areas could be established in ecotourism destinations to introduce local citizens' life and promote life experience itineraries.
2. By holding activities, ecotourism could provide opportunities for the mutual exchange between the citizens and visitors to experience real local

traditional culture. On the other hand, visitors could perceive the enthusiasm and friendliness of the citizens; and, the marketing and package of festival activities in low seasons could extend the touring season. The provision of good experiences allows visitors feedback with positive environment image and recommendation through word of mouth to influence potential visitors' environment image of the tourism destination.

3. As the characteristics of potential tourism environment image are established on competitive tourism destinations, potential environment image, beyond the existing image, should be constantly dug out to increase local image different from the past so as to enhance ecotourism visitors' revisit intention or attract various types of visitors.

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