
Effects of Ecotourism Environmental Experience on Leisure Coping and Leisure Benefits

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Abstract

In the busy society, the public has increased the needs for the participation in recreation to acquire distinct leisure experience and perception as well as satisfy demands for life. The participation in recreation could relax and release pressure, balance work, as well as acquire other benefits, such as the enhancement of physical health and interpersonal relationship. It therefore drives the boom of tourism industry to become a global economic activity. With the rising ecological conservation awareness and the emergence of sustainable development idea in past years, the sustainable development emphasized ecotourism, different form mass tourism, is developed. Aiming at ecotourism, ecotourism visitors to Fujian Province, as the research objects, are distributed 480 copies of questionnaire. Total 406 valid copies are retrieved, with the retrieval rate 85%. The research results reveal significantly positive effects of 1. environmental experience on leisure coping, 2. leisure coping on leisure benefits, and 3. environmental experience on leisure benefits. According to the results, suggestions are further proposed, expecting to assist domestic ecotourism in the development to achieve the sustainable development.

Keywords: ecotourism, environmental experience, leisure coping, leisure benefits

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INTRODUCTION

Along with the advance and development of technology, people have more free time for recreation. The increasing demands for tourism therefore drive the boom of tourism industry to become a global economic activity. The rapid development of tourism industry results in wealth, provides numerous employment opportunities, and offers diverse recreation opportunities and experiences for visitors. However, it causes disasters for resources, impacts the environment, and even changes local citizens' lifestyles to rely on visitors for the survival. It therefore results in the loss of traditional industries. Such results destroy natural environment, have tourist spots lose the attraction to visitors, and damage the environment and the managers. It becomes a primary research trend to take care of both environmental conservation and sustainable tourism. With the rising ecological conservation awareness and the appearance of sustainable development ideas, the sustainable development emphasized ecotourism, different from mass tourism, is developed.

In the busy society, the public increases the demands for recreation participation. The participation in recreation allows people acquiring different leisure experience and perception to satisfy the demands for life. Recreation, on the other hand, could relax and release pressure, balance work, and acquire other benefits, e.g. the enhancement of physical health and interpersonal relationship. Proper outdoor activities could assist the public in maintaining or improving the physical states to further slowdown aging and promote physical and mental health. Especially, natural ecotourism could enhancing tourists' environmental experience and impress people. Meanwhile, it allows consonance and exchange & interaction among tourists and could activate interpersonal social relationship. Apparently, the provision of ecotourism with ecology education is the current trend of tourism. Besides, the environmental experience in the nature could enhance the tourism impression, allow visitors acquiring rich memories and feelings. The contact with natural environment allows them applying the senses to observe the nature and acquire the first-hand experiences. It would be the best way to awaken the

environmental awareness and cultivate the environmental conservation concept. For this reason, the effect of ecotourism environmental experience on leisure coping and leisure benefits is studied, expecting to assist domestic ecotourism in the development to achieve the sustainable development.

LITERATURE REVIEW

Environmental Experience

Hao et al. (2015) pointed out environmental experience as the combination of real, social, and managerial settings in the locations with leisure behaviors, including natural environment attributes, social attributes of interaction among visitors, and environment conditions offered by managerial settings. Kim and Kerstetter (2016) regarded environmental experience as the characteristics of locations with certain recreational activities; such characteristics contained the natural resources and environmental symbols of the locations as well as the characteristics created through management, covering physical setting, social setting, managerial setting, and activity facilities. Brown et al. (2016) referred environmental experience to various basic features in the environment which visitors could recognize in the recreational activity locations, i.e. the quality of activity opportunity in visitors' mind. Regarding research objectives, research objects, and the positions of managers, Smith et al. (2017) classified environment attributes in recreational activity into physical setting, social setting, managerial setting, and activity facilities. Either way expected to assist researchers, through the classification of environment attributes, in deeper understanding of specific research subjects (Reinberg et al. 2017). Ali et al. (2016) regarded physical setting as the provision of the most important environmental characteristics for activity. Both specific and abstract characteristics of managerial setting or activity experience were physical settings or attributes derived from physical setting.

Referring to Yang and Lin (2017), environmental experience is classified into physical setting, social setting, managerial setting, and activity facilities in this study.

- (1) Physical Setting: referring to natural landscape and characters, providing recreational activity with basic natural materials or managers, in order to achieve certain objectives, directly or indirectly influencing environment conditions, including natural environment, e.g. climate (temperature, rainfall, wind direction, and sunshine), topography, vegetation, and

hydrology or soil, and humanistic environment, such as the compositions of houses, roads, and bridges.

- (2) Social Setting: mainly referring to psychological and social dimensions. The functional elements utilized in the recreation environment include the result, duration and type of recreation use, activity interests, congestion, experience, and expectation. It refers to visitors' "social interaction" in the open space of the recreation area.
- (3) Managerial Setting: referring to applying management theory to set managerial goals, after the planning and design of development units or managerial units. It is co-managed by managers, resources, and users and form environmental conditions with management, technology, finance, business, and maintenance.
- (4) Activity Facilities: Static or dynamic facilities related to activity participation are activity facilities, which are divided into recreational activity facilities (e.g. slides, swings, and bars) and service facilities, including interpretation service, public facilities (toilets, instruction boards, rest chairs, parking lots, and public phones), food & drink facilities, and safety facilities.

Leisure Coping

Huang et al. (2015) explained leisure as enjoying more free will and autonomous choices, through physical relaxation or activity and spiritual ease after work, to acquire more self-fulfillment, enrich the content of life, and create more precious life meanings and value. Baghianimoghadam et al. (2015) mentioned that coping was often used in psychology; a person changed the cognition and behaviors, in order to reduce or overcome internal and external needs, which exceeded what the person could bear, in the environment, to release the pressure (Echchakoui 2016). In other words, when an individual appeared uncoordinated belief, knowledge, and behavior of affairs and tried to remove such contradiction to recover the harmony, coping was the process to release pressure. Chandralal and Valenzuela (2015) indicated that, under pressure, an individual would try to engage in certain behaviors to reduce the pressure; such a behavior was regarded as coping. In addition to linking and enhancing physical and mental health, the participation in recreation could also result in positive benefits of

relieving worries and recovering or coping physical and mental states (Richards et al. 2016).

Referring to Tay et al. (2017), leisure coping is divided into the following dimensions.

- (1) Leisure companionship: Leisure companionship is a kind of social support to acquire immediate friendship support and reduce the effect of pressure on physical health.
- (2) Leisure palliative coping: Leisure palliative coping refers to an individual intentionally engaging in leisure. It could be the avoidance-adaptation coping strategy, to acquire new energy, through temporary rest, for facing various types of pressure in the life so that the individual could relax through the engagement in leisure from daily pressure as well as recover spirit and strength, i.e. indirectly shifting the attention from pressure.
- (3) Leisure mood enhancement: The discomfort feeling caused by coping pressure with recreation participation could enhance positive emotion or reduce negative mood, e.g. exercise during lunch break to change the space and mood of an individual, and replace emotion in the pressure situation through leisure.

Leisure Benefits

Sun and Gao (2015) pointed out leisure as recreation in short. Any free, voluntary, automatic, healthy, happy, interesting, self-performed, and individual and society beneficial regeneration activities with entertainment, gaming, creation, maintenance, and comfort properties aiming to release fatigue, recover strength, excite spirit, rehabilitate injuries, entertain oneself, well use free time, enhance physical and mental health, promote social relationship, arouse work intention, and enhance work efficiency were regarded as recreation. From the viewpoint of using certain resources for creating effectiveness of users or social groups, Bezdjian et al. (2017) considered that "benefit" was not monetary value beneficial to the changes of individuals, groups, societies, or certain entities. Kim et al. (2016) regarded it as an advantage, which allowed users or social groups acquiring satisfaction with needs or improving current conditions in the leisure participation and experience process. Coudounaris and Sthapit (2017) regarded "leisure benefits" as a subjective idea as well as a major objective of humans participating in recreation. Gulliver (2015) mentioned that individuals freely selected the participated activity contents at the free time to generate

the subjective evaluation of physical and mental improvement, leisure experience and feelings, to further appear different leisure benefits; the perceived leisure benefits therefore would be distinct. Nevertheless, each environment presented different characteristics and characters, provided various conditions and opportunities to generate distinct activities and behaviors; different user characteristics would enhance individual and social benefits through the opportunities provided by the environment.

Referring to Die and Hu (2016), adults are the same as children and the youth to benefit from the recreation participation experiences. The dimensions of leisure benefits in this study contain

- (1) Physiological benefits: maintaining or enhancing physical fitness.
- (2) Emotional benefits: increasing self-content, forming leisure attitudes, and confirming value.
- (3) Psychological benefits: Satisfying with demands for self-fulfillment, relieving spiritual perception, enriching learning fields, adjusting spirit, reflecting individual value, leadership, creativity, challenging and independence experience, family reunion, keeping away from pressure, and enjoying the nature.
- (4) Social benefits: satisfying with social life, enhancing unity and harmony, developing friendship and family relationship, and promoting quality of life.

Research Hypothesis

Hao et al. (2015) indicated that the participation in recreation allowed enjoying free environmental experience, due to relaxing mood caused by attention shift, concentrating spirit, and developing abilities on activities, to relieve pressure of life, eliminate anxiety, and further benefit physiological and psychological health. Hashim and Tan (2015) considered that, when an individual encountered pressure, recreation, after environmental experience, could provide social support and self-determination that it was a pressure coping method; the pressure coping behavior or cognition through the participation in recreation was therefore regarded as leisure coping. Yang and Lin (2017) pointed out leisure coping as people, after participating in various recreational environmental experiences, generating positive effect, where the negative effect of pressure coping could maintain physiological and psychological health to further enhance quality of life.

Leisure coping referred to an individual, in order to achieve physical and mental balance in distinct pressure, presenting coping behaviors or cognition through recreational environmental experience to relieve pressure and further promote happiness (Smith et al., 2018). The following hypothesis is therefore proposed in this study.

H1: Environmental experience shows significantly positive effects on leisure coping.

Wang (2016) proved the mediating effect of leisure coping strategy on leisure coping belief to coping result. Heinemann and Gaiser (2015) found out high correlations between social psychology involvement and leisure benefits. Huang et al. (2015) revealed the positive effect of leisure coping strategy on leisure benefits as well as the mediating effect of leisure coping strategy on leisure coping to leisure benefits. Sørensen and Jensen (2015) pointed out the notably negative correlation between pressure of life and physical & mental health as well as the remarkably positive correlation between leisure coping strategy and coping result, physical & mental health. Such research also proved that leisure coping strategy could effectively relieve the impact of pressure on physical and mental health. Tay et al. (2017) discovered that nursing staff would reduce illness symptoms and relieve pressure of life and work through leisure; it revealed the mediating effect of leisure coping on nursing staff's burnout to leisure benefits. Accordingly, the following hypothesis is further proposed in this study.

H2: Leisure coping reveals remarkably positive effects on leisure benefits.

Tsai and Wang (2016) proposed that tourism environmental experience could result in various benefits, including health, physical activity and recreation opportunities as well as pressure release. Besides, it could cultivate the ability to observe and appreciate the nature as well as provide social interaction and support opportunities to achieve the benefit of self-reflection (Stylidis et al. 2017). Sun and Gao (2015) discovered that college students could acquire psychological benefits from environmental experience or neighboring environment, including the climate in open space, scenic changes, and escape from campus. Jensen and Prebensen (2015) also found out lower anxiety and sad emotion of visitors after the tourism environmental experience (Die and Hu 2016). Zaheer and Trkman (2017) referred leisure benefits as environment conditions providing humans with recreation sites and opportunities for acquiring

beneficial results of need satisfaction or current condition improvement. In addition to visitors' social and economic background and leisure behaviors, environment was also a factor in leisure benefits contained and a basic elements for recreation. In this case, the following hypothesis is proposed in this study.

H3: Environmental experience appears notably positive effects on leisure benefits.

SAMPLE AND MEASURING INDICATOR

Research Sample and Object

Aiming at ecotourism in Fujian Province, 480 copies of questionnaire are distributed to the visitors, and 406 copies are retrieved, with the retrieval rate 85%.

Reliability and Validity Test

The questionnaire items are referred to domestic and international research that it should present certain content validity. The dimensions of environmental experience, leisure coping, and leisure benefits are tested the overall structural causal relationship, and the linear structural relation model analysis result reveals the overall model fit achieving the reasonable range that it shows favorable convergent validity and predictive validity. Item-to-total correlation coefficients are used in this study for testing the construct validity of the questionnaire content, i.e. reliability analysis. The calculated item-to-total correlation coefficients are used for judging the questionnaire contents. The item-to-total correlation coefficients in this study are higher than 0.7 that the dimensions present certain construct validity.

To further understand the reliability, the reliability analysis is preceded. According to the standards to develop the formal questionnaire, the measured Cronbach's α appears in 0.70~0.90, conforming to the reliability range.

EMPIRICAL RESULT ANALYSIS

LISREL Model Evaluation Index

LISREL (linear structural relation) model combines factor analysis and path analysis in traditional statistics and is added simultaneous equations in econometrics. It could calculate multi-factor and multi-causal path at the same time. The model fit could be evaluated from preliminary fit criteria, overall model fit, and fit of internal structure of model.

The research data are organized as below.

The complete model analysis, **Table 1**, shows that 4 dimensions of environmental experience (physical

Table 1. Overall linear structure model analysis

evaluation item	parameter/evaluation standard	result	t	
preliminary fit	environmental experience	Physical Setting	0.668	9.38**
		Social Setting	0.672	9.66**
		Managerial Setting	0.653	8.86**
		Activity Facilities	0.677	10.12**
	leisure coping	leisure companionship	0.702	11.74**
		leisure palliative coping	0.722	13.25**
		leisure mood enhancement	0.714	12.96**
	leisure benefits	physiological benefits	0.687	10.92**
		emotional benefits	0.708	12.33**
		psychological benefits	0.694	11.23**
social benefits		0.663	9.14**	

Note: * stands for $p < 0.05$, ** for $p < 0.01$, *** for $p < 0.001$

Table 2. Overall linear structure model analysis

evaluation item	parameter/evaluation standard	result	t
internal fit	environmental experience → leisure coping	0.866	27.69**
	leisure coping → leisure benefits	0.854	25.38**
	environmental experience → leisure benefits	0.847	23.56**

Note: * stands for $p < 0.05$, ** for $p < 0.01$, *** for $p < 0.001$

Table 3. Overall linear structure model analysis

overall fit	χ^2/Df	1.342
	GFI	0.983
	AGFI	0.924
	RMR	0.003

Note: * stands for $p < 0.05$, ** for $p < 0.01$, *** for $p < 0.001$

Setting, social setting, managerial setting, activity facilities) could significantly explain environmental experience ($t > 1.96$, $p < 0.05$); 3 dimensions of leisure coping (leisure companionship, leisure palliative coping, leisure mood enhancement) could remarkably explain leisure coping ($t > 1.96$, $p < 0.05$); and, 4 dimensions of leisure benefits (physiological benefits, emotional benefits, psychological benefits, social benefits) could notably explain leisure benefits ($t > 1.96$, $p < 0.05$). Apparently, the overall model presents favorable preliminary fit.

From **Table 2**, environmental experience shows positive and significant correlations with leisure coping (0.866, $p < 0.01$), leisure coping reveals positive and notable correlations with leisure benefits (0.854, $p < 0.01$), and environmental experience appears positive and significant correlations with leisure benefits (0.847, $p < 0.01$) that H1, H2, and H3 are supported.

From **Table 3**, the overall model fit standards $\chi^2/Df = 1.342$, smaller than the standard 3, $RMR = 0.003$, showing that χ^2/DF and RMR are appropriate. Moreover, chi-square is sensitive to sample size that it is not suitable for directly judging the fit. However, the overall model fit standards $GFI = 0.983$

and $AGFI = 0.924$ reach the standard 0.9 (the closer GFI and $AGFI$ to 1 revealing the better model fit), that this model presents better fit indices.

CONCLUSION

The research results show that the quality and climate of environmental experience created by the nature, humanistic landscape, environmental greenification, rich environmental facilities, and overall planning in ecotourism could stimulate visitors' senses to appear positive functions of environmental awareness and experience or enhance interpersonal relationship to further acquire spiritual smoothness or enhanced affection among people as well as promote psychological health. Ecotourism environmental experience could result in leisure coping and leisure benefits; in addition to planning the outlook design and formative aesthetics of complete flower planting, waterscape, and recreation facilities, the establishment of proper interpretation service systems should be emphasized to enrich sensory experience and spiritual affection; and, the environmental education function of interpretation facilities could enhance individual quality and value. In the beginning of ecotourism environment planning, ecotourism managers should evaluate

demands for leisure benefits, well apply the environmental characters of the base, and comprehensively consider existing natural and humanistic environment resources and user needs to achieve effective application of resources, avoid improper environmental resource planning, and satisfy the public sensory and functional experience.

RECOMMENDATIONS

From the important research results and findings, practical suggestions are proposed in this study.

1. Ecotourism aims to have the public freely and equally enjoy the nature and cope the life. The users cover various age groups, including the aged and children. Besides, the aging society structure has the creation of comfortable environment and secure facilities be emphasized. In this case, it is suggested that negative effects of environment hazard factors should be discussed and the evaluation mechanism and prevention strategy should be further proposed for the reference of ecotourism environment planning and existing environment improvement to

construct friendly ecotourism recreation environment.

2. Ecotourism, through the planning of theme park environment, could satisfy visitors' various needs for leisure benefits. Accordingly, ecotourism environment planning should strongly reflect the theme and stimulate visitors with external environment to generate environmental experience so as to effectively result in specific leisure benefits for visitors.
3. Ecotourism environment planners and managers are suggested grasping ecotourism visitors' background and activity characteristics, especially visitors' ages, education, visit frequency, and transportation time to understand visitors' ecotourism environment needs and satisfaction. Aiming at the emphasized items, as the reference for ecotourism environment planning and maintenance management, it could effectively provide proper environmental resources to satisfy visitor needs and promote the recreation quality of ecotourism.

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