



# The International Conference on **Sustainable Tourism and Innovation**

**17-18 May 2018**

Lecture Theatre 7  
Yasumoto International Academic Park  
The Chinese University of Hong Kong

Organizers



Centre for Environmental  
Policy & Resource Management,  
GRMD, CUHK

Supporter





# The International Conference on Sustainable Tourism and Innovation

17-18 May 2018  
The Chinese University of Hong Kong

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# Introduction

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The International Conference on Sustainable Tourism is organized annually by the Department of Geography and Resource Management (GRMD), the Master of Social Science in Sustainable Tourism (MSSST), and the Centre for Environmental Policy and Resource Management (CEPRM) of The Chinese University of Hong Kong (CUHK). Since the first conference held in 2012, the event has centred around themes such as sustainable tourism practices, community and environmental resilience, global-local understanding, and sustainable tourism development, where the greatest minds in the tourism academia across the globe have fostered academic exchange and collaboration, bringing together novel ideas and empirical evidence related to sustainable tourism.

Standing at the frontier of knowledge, the 2018 conference adopts the theme of ‘Sustainable Tourism and Innovation’ in response to the UN World Tourism Organization’s emphasis on the role of tourism in catalysing sustainable development. Innovation is the key to raise awareness among stakeholders and promote positive changes in public policies, business practices, and consumer behaviour. In the discussion of innovative and sustainable tourism, a number of questions should be considered: How does innovation connect to the development of a more prosperous, inclusive and sustainable economy? How do smarter societies promote social inclusiveness, stimulate employment, and reduce poverty? How does the tourism sector make use of new ideas and technological advancement to increase resource efficiency, conserve ecological and natural environments, and tackle problems related to climate change? How can cultural values, diversity and heritages be protected through creative ways at tourist destinations? How does innovation cultivate mutual understanding between local communities and tourists? How can technological advancement in tourism bring about peace and security? This conference seeks to address these questions and inspire further academic dialogues.

This year’s conference includes student-orientated sessions and aims to boost students’ active engagement and interaction. Students are the future leaders and scholars in the tourism sector. Their ability and creativity are the sources of power for the advancement of knowledge and innovation in sustainable tourism strategies. By offering an academic platform to these emerging young leaders as well as university researchers and professional practitioners from various institutes, the conference aspires to instigate the re-imagination of sustainable tourism, encourage informed decisions, and cast light on the future pathway of the tourism sector in coping with the challenges of sustainable tourism.

## Committees

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### **International Advisory Committee**

- **Dr. Dora Agapito**  
University of Lincoln, The United Kingdom
- **Ms. Cindy Choi**  
Association for Geoconservation, Hong Kong, Hong Kong SAR, China
- **Prof. Tung Fung**  
The Chinese University of Hong Kong, Hong Kong SAR, China
- **Prof. Amran Hamzah**  
Universiti Teknologi Malaysia, Malaysia
- **Prof. Lawal M. Marafa**  
The Chinese University of Hong Kong, Hong Kong SAR, China
- **Prof. Jianfa Shen**  
The Chinese University of Hong Kong, Hong Kong SAR, China
- **Prof. Geoffrey Wall**  
University of Waterloo, Canada

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- **Dr. Joanna Wai Ying Lee**  
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- **Prof. Sai Leung Ng**  
The Chinese University of Hong Kong, Hong Kong SAR, China

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- Mr. Yat Hang Chan
- Ms. Wai Shan Shirley Chu
- Ms. Ching Yeung Li
- Ms. Wendy Yinghui Yang
- Mr. Tsz Chun Yeung

*(The above lists are alphabetized by last name)*

## Conference Programme

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<b>17 May 2018 (Thursday)</b>		
<b>Time</b>	<b>Event</b>	<b>Venue</b>
08:00 – 08:30	Registration	YIA LT7
08:30 – 08:35	<b>Opening ceremony</b>	
08:35 – 08:45	Welcome speech by Prof Jianfa Shen Chairperson of Department of Geography and Resource Management The Chinese University of Hong Kong	
08:45 – 08:55	Opening speech by Prof Jiang Xu Associate Dean (Education) of Faculty of Social Science The Chinese University of Hong Kong	
08:55 – 09:10	Souvenir presentation and photo session	
<b>Chair: Lawal M. Marafa</b>		YIA LT7
09:15 – 09:50	<b>Keynote 1 – <u>Amran Hamzah</u></b> Tourism policy planning towards smart tourism by 2030: The Malaysian experience	
09:50 – 10:25	<b>Keynote 2 – <u>Dora Agapita</u></b> A contribution to marketing sustainable and innovative sensory-themed tourist experiences in rural destinations	
10:25 – 10:40	Tea break and poster session	YIA 2/F Oval area

Time	Event	Venue
<b>Session A1 – Innovation in Tourism</b> <b>Chair: Sai Leung Ng</b>		
10:45 – 11:00	<b>1. <u>Cindy Choi</u></b> Emerging technologies to enhance sustainable tourism and heritage protection: Dunhuang Grottoes	YIA LT7
11:00 – 11:15	<b>2. <u>Denis Tolkach, Stephen Pratt</u></b> The basic laws of tourism stupidity	
11:15 – 11:30	<b>3. <u>Vincent Ho</u></b> Cultural heritage conservation and film-induced tourism: Place-making and branding management in Hong Kong and Macau	
11:30 – 11:45	<b>4. <u>Trevor H. B. Sofield, Lawal M. Marafa</u></b> Visual research methodology: Its place in the pedagogy of field trips	
<b>Session A2 – Socio-economic and Environmental Sustainability</b> <b>Chair: Kwai Cheong Chau</b>		
10:45 – 11:00	<b>5. <u>Anxi Guo, Ying Shen, Yingzhi Guo</u></b> A Study on the relationship perception between tourism impact and life quality of community residents at tourist destinations	YIA 201
11:00 – 11:15	<b>6. <u>Benjamin Lucca Iaquinto</u></b> Backpacker destinations and the mobilities paradigm: Place-making on the move	
11:15 – 11:30	<b>7. <u>Anson T. H. Ma, Lewis T. O. Cheung</u></b> The role of sociodemographic characteristics in the travel motivation and satisfaction of tourists in forest protected areas in South China	
11:30 – 11:45	<b>8. <u>Ching Hung Lam, Sai Leung Ng</u></b> Risk level of rock climbing crags in Hong Kong from a geographic perspective	
12:00 – 13:30	Lunch	CCC Staff Club
12:00 – 14:00	Poster session	YIA 2/F Oval area

Time	Event	Venue
<b>Chair: Chung-Shing Chan</b>		YIA LT7
14:00 – 14:35	<b>Keynote 3 – <u>Geoffrey Wall</u></b> Innovation in rural tourism: Culture and agriculture in a creative rural economy	
<b>Session B1 – Community-based and Rural Tourism</b> <b>Chair: Joanna Wai Ying Lee</b>		
14:45 – 15:00	<b>9. <u>Kaiying Guo</u></b> Revitalization and innovation in rural tourism: A case study of Machong town	YIA LT7
15:00 – 15:15	<b>10. <u>Thi To Quyen Le, Ngoc Canh Dao, My Tien Ly, Truong Nhan Nguyen</u></b> Assessing the extent of sustainable development in Nam Du archipelago, Kien Giang Province, Vietnam	
15:15 – 15:30	<b>11. <u>Rachata Chaimuang, Nathamon Sangwan</u></b> A tourism network management model of the Baan Huaykhom community Maeyao Sub-district, Muang District, Chiang Rai Province: Local party participation	
<b>Session B2 – Urban and Cultural Tourism</b> <b>Chair: Cindy Choi</b>		YIA 201
14:45 – 15:00	<b>12. <u>Qiuju Luo, Wanxin Chen</u></b> How government matters in green business events: A case study of the Canton Fair in China	
15:00 – 15:15	<b>13. <u>Shanshan Dai, Honggang Xu, Fangfang Liu</u></b> Resilience of urban tourist destinations: A hierarchical measurement model based on resident perception	
15:15 – 15:30	<b>14. <u>Cynthia Huiying Hou</u></b> Is adaptive reuse a sustainable approach for heritage conservation? The case in Hong Kong	
15:30 – 15:45	<b>15. <u>C. T. Lucetta Tsai</u></b> Sports for tourism: Developing hot air ballooning in Taiwan	
15:45 – 16:20	Tea break and poster session	



Time	Event	Venue
<b>Session C1 – Student Session 1</b> <b>Chair: Amran Hamzah</b>		
16:25 – 16:40	<b>16. Yingzhi Guo, Wenting Zhu, <u>Anxi Guo</u></b> A study on the relationship between tourism impact perception and residents’ support for tourism development: A regulatory role of trust in tourism development company	YIA LT7
16:40 – 16:55	<b>17. <u>Shiheng Zeng</u>, Qiuju Luo</b> Technology for running: Exploring the role of digital devices in running experience	
16:55 – 17:10	<b>18. <u>Frankie Keng Hang Fan</u>, Sai Leung Ng</b> Tourism ethnography and researcher’s identities: Experience in Malaysia	
17:10 – 17:25	<b>19. <u>Longduoqi A</u>, Hang Ma</b> A study on the categories and development paths of tourist villages in China	
<b>Session C2 – Student Session 2</b> <b>Chair: Dora Agapita</b>		
16:25 – 16:40	<b>20. <u>Xialei Duan</u></b> Rural destination image and branding in China	YIA 201
16:40 – 16:55	<b>21. <u>Xueting Zhai</u>, Qiuju Luo, Seoki Lee</b> Do more or less? The motives and impacts of exhibitors’ basic and advanced CSR practices in green business event	
16:55 – 17:10	<b>22. Tsz Chun Yeung, <u>Sum Yue Chung</u>, <u>Tan Ting Ng</u>, <u>King Fung Chau</u></b> Low-carbon travel in Hong Kong: A local attempt to respond to climate change	
17:10 – 17:25	<b>23. Honggang Xu, <u>Fenfen Jiang</u></b> Reflection on responsible tourism: A preliminary study on Chinese tourist behaviors in Laos	
17:30 – 17:45	<b>Closing ceremony</b>	YIA LT7
18:00 – 19:30	Dinner for invited guests	SCR Club Restaurant

## Poster Sessions

Date: 17 May

Time: 10:25-10:40, 12:00-14:00 and 15:45-16:20

Venue: Outside YIA LT7

Coordinator: Wendy Yinghui Yang

**1. Chung-Shing Chan, Lawal M. Marafa, Yat Hang Chan, Tsz Heung Agnes Fong**

*Theme: Innovation in Tourism*

An ecotourism scenario game for education enhancement in tourism study:  
Game-based learning in ecotourism education

**2. Sau Hang Chan**

*Theme: Urban and Cultural Tourism*

Development of cultural heritage tourism in Lei Yue Mun, Hong Kong:  
Feasibility, impact and prospect

**3. Huan He**

*Theme: Socio-economic and Environmental Sustainability*

The influence of dynamic demonstration on artisans' lifestyle:  
A case study of the Workmanship Demonstration Pavilion, Hangzhou

**4. Sze Ping Hung**

*Theme: Community-based and Rural Tourism*

Assessing community-based tourism development in Hong Kong:  
A comparative study of Peng Chau and Yim Tin Tsai

**5. Zhongjuan Ji**

*Theme: Community-based and Rural Tourism*

The standardization of tourism areas:  
Local perspective and Tibet experience

**6. Lawal M. Marafa, Kwun Ho Felix Tsang**

*Theme: Innovation in Tourism*

Smart tourism and co-creation of experiences:  
How sustainable can this be in Hong Kong?

**7. Wing Chu Ng**

*Theme: Socio-economic and Environmental Sustainability*

Route tourism planning and management in practice:  
A comprehensive study of Lantau Island's connectivity

**8. Fung Hoi Si**

*Theme: Innovation in Tourism*

The applicability and limitations of 'smart tourism' in enhancing local tourism development: A case study of Hong Kong from a district-level perspective

**9. Stanley Lap Shun To**

*Theme: Socio-economic and Environmental Sustainability*

Understanding the speaking voice of Chinese outbound tourists with the Theory of Planned Behavior: A study in Kunming, Yunnan

**10. Tiffany Wan**

*Theme: Innovation in Tourism*

Is sustainable tourism sustainable?

Proposing sustainable tourism 2.0: The Quality of Mind (QoM) approach

**11. Tsz Tung Wong**

*Theme: Innovation in Tourism*

A study on social media and local tourism in Hong Kong:

Opportunities and challenges

**12. Nan Xue, Jiayi Fan, Han Shen**

*Theme: Innovation in Tourism*

The impact of restaurants' remedies on the repurchase intention of customers after delivery service failure

**13. Junjie Zhang, Han Shen, Zuxiang Shen, Anan Hu**

*Theme: Urban and Cultural tourism*

The impact of city tourism promotional film on brand affects:

An empirical analysis based on Shanghai and Singapore tourism promotional films

**18 May 2018 (Friday) – Field Trip**

<b>Time</b>	<b>Event</b>
09:00 – 16:00	Field trip to Yim Tin Tsai – guided tour and lunch (Details to be provided at the reception counter)

**All presentations are categorized according to the following themes:**

Session A1 – Innovation in Tourism

Session A2 – Socio-economic and Environmental Sustainability

Session B1 – Community-based and Rural Tourism

Session B2 – Urban and Cultural Tourism

Session C1 – Student Session 1

Session C2 – Student Session 2

## Keynote Speakers

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### **Dr. Dora Agapito**

**University of Lincoln, U.K.**

Dora Agapito is a Senior Lecturer in Tourism and Event Management at the Department of Marketing and Tourism, Lincoln International Business School, University of Lincoln. She has previously served as an Invited Lecturer and Invited Assistance Professor at the University of Algarve, Portugal, where she received her PhD degree in Tourism. She is also a member of the Editorial Board of the international journal *Destination Marketing & Management* and a member of the professional body Travel and Tourism Research Association (TTRA). Agapito is an active consultant and academic conference speaker as well as a prolific writer. Her research interests and intellectual publications cover the areas of tourist experience, destination marketing management, consumer behaviour in tourism and events, sensory experience and marketing, and rural tourism.



### **Professor Amran Hamzah**

**Universiti Teknologi Malaysia, Malaysia**

Amran Hamzah is a Professor in Tourism Planning and Director of the Centre for Innovative Planning and Development at Universiti Teknologi Malaysia. He started the M.Sc. in Tourism Planning programme at Universiti Teknologi Malaysia, which is celebrating its 20<sup>th</sup> anniversary in 2018. Apart from his academic duties, Amran is an active tourism consultant and has led more than 70 consultancy projects for international and national agencies. He is also active in the International Union for Conservation of Nature (IUCN) and has held several positions in IUCN's commissions. In 2016, he was elected as an IUCN Councilor for the period 2016-2020. Amran's area of specialization is the interface between tourism and protected area management. A substantial proportion of his work revolves around World Heritage, protected area management, and rights-based approaches involving local communities.

**Professor Geoffrey Wall**  
**University of Waterloo, Canada**

Geoffrey Wall is Distinguished Professor Emeritus in the Department of Geography and Environmental Management at the University of Waterloo where he has been teaching for over 40 years. He is past President of the International Academy for the Study of Tourism. He received numerous awards during his career, including the Award for Scholarly Distinction in Geography from the Canadian Association of Geographers (2011), the Friendship Award from the Government of the People's Republic of China (2014), and the Ulysses Price from the UN World Tourism Organization (2017). With over 200 journal articles, 100 book chapters and more than 20 authored or edited books and monographs, Wall is one of the most-cited and field-defining authors of the discipline, whose works explore the implications of tourism of different types for destination areas with different characteristics, the socio-economic implications of climate change, and the planning and management implications of such information.



**A Contribution to Marketing Sustainable and Innovative  
Sensory-themed Tourist Experiences in Rural Destinations**

*Dora AGAPITO*

Lincoln International Business School  
University of Lincoln, U.K.

The role of the sensory dimension of tourist experiences has been stressed in current tourism research, supported by a multidisciplinary view on the role of the five external senses in human perception, memory, and behaviour. While the marketing management approach highlights the importance of considering multi-sensory information in the process of facilitating positive and memorable tourist experiences, additional research is needed to validate the existing theoretical frameworks.

Recently, tourism studies have recognized that destination experiences may be associated with different bundles of sensory impressions related to specific resources that can be explored as themes in responsibly marketing tourist experiences. This line of research offers relevant managerial implications by proposing a holistic approach to sensory stimuli based on endogenous resources, which contributes to conceptualizing and communicating unique multi-sensory tourist experiences involving and benefiting all destination stakeholders.

Specifically, rural destinations are characterized by a rich and vulnerable collection of endogenous resources, which can be analysed with the aim of conceptualizing unique multi-sensory tourist experiences involving different stakeholders. In fact, facing growing competition and tourists increasingly demanding a variety of experiences, rural destinations are calling for innovative offerings and communication strategies addressed at referencing consumers fitting the identity of the destination and boosting destination competitiveness and sustainability.

This research aims to explore existing frameworks to analyse sensory information perceived by tourists while experiencing the countryside, which contributes to the process of innovatively marketing sustainable sensory-themed tourist experiences in rural destinations.

**Keywords:** *Destination marketing; rural destinations; sensory tourist experience; sustainable tourism*

## **Tourism Policy Planning Towards Smart Tourism by 2030: The Malaysian Experience**

*Amran HAMZAH*

Department of Urban and Regional Planning  
Universiti Teknologi Malaysia, Malaysia

The Malaysian tourism industry has relatively stagnated over the past few years and had even experienced negative growth in 2017 in contrast to its ASEAN neighbours. Tired tourism products, overdependence on the Singapore and China mass markets, and outdated tourism marketing and promotion are among the reasons for Malaysia's poor performance despite the weakening of its currency (Ringgit). To address this predicament, the Ministry of Tourism Malaysia launched the Visit Malaysia Year 2020 campaign earlier in 2018, which is arguably a publicity blitz that might have lost its novelty factor years ago. On a more positive note, MOTAC commissioned the National Tourism Policy Study (NTPS) in late 2017 to formulate a more systemic and strategic direction for the growth of the tourism industry based on 3 pillars, namely competitiveness, inclusiveness and sustainability. This paper provides the insights of the process of developing strategies and actions to transform the Malaysian tourism industry towards Smart Tourism. It is based on the author's reflections as the lead consultant for the NTPS, and will focus on the challenges in transforming an industry that is entrenched in a three-tiered government system, and the numerous impediments that are restricting innovation by the private sector, notably the creation of a pro-business environment and a comprehensive digitalisation process that are crucial for the journey towards Smart Tourism by 2030.

**Keywords:** *Malaysia; smart tourism; tourism policy planning; tourism growth*

**Innovation in Rural Tourism:  
Culture and Agriculture in a Creative Rural Economy**

Geoffrey WALL

Department of Geography and Environmental Management  
University of Waterloo, Canada

Many rural areas suffer from economic challenges that require innovative solutions but the literature on innovation emphasizes urban settings. In this presentation, a broad perspective on innovation is adopted and creative relationships between agriculture and tourism are explored through the creation of culinary clusters. Porter's cluster model, which focused upon secondary industries, is modified to better meet the circumstances of the primary and tertiary sectors. A conceptual framework is presented, consisting of inputs, creativity, outputs and outcomes, to guide thinking, including the collection and organization of information, and the presentation of findings. Creativity is examined through the fostering of an environmentally friendly strategy; leadership; stakeholder collaboration; and communication and information flows. The outcome is a creative rural economy through creative human capital development in agriculture and tourism based on a new value chain of production and consumption as a place brand. The framework is applied to two cases of culinary tourism in southern Ontario, Canada. However, it will be argued that the framework has much wider applicability.

**Keywords:** *Agriculture; creativity; culinary tourism; Porterian cluster; rural tourism*



**A Study on the Categories and Development Paths of Tourist Villages in China**

*Longduoqi A, Hang MA*

School of Architecture and Urban Planning  
Harbin Institute of Technology, Shenzhen Graduate School, China

China is vast in territory and abundant in village resources. With the process of urbanization, many villages are not suitable for the original industry, farming, anymore, and they are looking for new development opportunities. Some of these villages with good tourism resources have been developing tourism. However, during the course of developing tourism, many villages neglect the tourism resources they have and blindly follow other successful cases, leading to the phenomenon of ‘thousands of villages look the same’. To make matters worse, villages lack rural characteristics and destroy the original tourism resources. From the perspective of tourism resources, this paper divides China’s tourist villages into four categories: natural landscape tourism villages, historical site tourism villages, folk custom tourism villages, and industrial recreation tourism villages. The paper chooses Hani village in Yunnan, Hong village in Anhui, Thousand-household Miao village in Xijiang, Guizhou, and Merlin village in Sichuan as typical cases of each kind of village. Through literature induction and case comparison, the main development points of various villages are analyzed, and the paper puts forward the development paths of various tourist villages with practical cases. This study can provide some references for classification research and tourism development practice for China’s tourist villages.

**Keywords:** *Categories of tourist villages; China; development path; tourism development; tourist village*

**A Tourism Network Management Model of the Baan Huaykhom Community,  
Maeyao Sub-district, Muang District, Chiang Rai Province:  
Local Party Participation**

*Rachata CHAIMUANG, Nathamon SANGWAN*

School of Tourism  
Chiangrai Rajabhat University, Thailand

The Baan Huaykhom community is a residential area of the ethnic groups Pakakoryor (Karen), Akka, and Lahu, which comprise three villages. This area is surrounded by nature and has diverse natural resources. People in this area are engaged in trading and agriculture, including the cultivation of rice, pineapple, and field crops. With regards to the state of tourism development, the area is still not well-known among tourists. However, the core leaders of the community want to conserve nature, the simple way of life, local cultures, and traditions of the area. There are worries about the loss of nature and the occurrence of negative impacts if many tourists visit the area. It is found that the tourists visiting the area are mostly American, French, and European who are on private tour. They wish to learn about nature, visit homestay, and be in touch with the unique identity of the ethnic groups. There is an exhibition of the possessions and utensils of the ethnic groups, such as daily utensils, agricultural tools, basketry, and musical instruments. Besides, there are organic farms and the Pa-Pern waterfall which interest tourists. Also, Baan Huaykhom has one organic farm.

**Keywords:** *Community tourism; local party; participation; tourism network management*

## **Emerging Technologies to Enhance Sustainable Tourism and Heritage Protection: Dunhuang Grottoes**

*Cindy CHOI*

Association for Geoconservation, Hong Kong, Hong Kong SAR, China

The Dunhuang Grottoes have been acclaimed as an ‘Encyclopaedia of the Middle Ages’. Lying in an oasis at the edge of the Taklamakan Desert, Dunhuang was one of the first trading cities encountered by merchants arriving in China from the west. It was also an ancient site of Buddhist religious activity, and was a popular destination for pilgrims as well as a garrison town protecting the region. The Dunhuang Grottoes have nearly 500 caves containing a vast repository of historic documents along the Silk Roads. They thus bear witness to the cultural, religious, social and commercial activities that took place in the first millennium. The Dunhuang Grottoes with murals and colorful sculptures are generally small while the majority is below 10 square meters. The frescoes and colorful sculptures in the caves are made of pigments, clay, wheat straw and wood, which are very fragile and subject to the threat of disease. They are thus both valuable and vulnerable. Since the opening of the Dunhuang Grottoes to the outside world in 1979, they have become a global tourism hotspot. The annual number of tourists has continued to grow from the initial 20,000 to 79 million in 2012 and then over 1 million in 2015. Seasonality and timeliness aggravate the visitation problem. The overcrowding and concentration of visitors in the peak season and peak hours pose serious threats to the long-term preservation and security of the grottoes while at the same time adversely impact the quality and satisfaction of visits. The Dunhuang Research Academy has instituted a series of measures to alleviate the problem especially by employing advanced technologies, including the environment monitoring analysis system, digitisation, 3D scanning and virtual reality representation of the Dunhuang relics, to better conserve the grottoes while at the same time promote the cultural heritage to the world. This research tries to study the effectiveness of the measures taken by the Academy and the extent to which technology plays in cultural heritage conservation and sustainable tourism.

**Keywords:** *Cultural conservation; Dunhuang Grottoes; sustainable tourism; technology; values and threats*

**Resilience of Urban Tourist Destinations:  
A Hierarchical Measurement Model Based on Resident Perception**

*Shanshan DAI, Honggang XU, Fangfang LIU*  
School of Tourism Management  
Sun Yat-sen University, China

Uncertainty and disturbance from the external world challenge the sustainable development of cities. Resilience, as a new prospect in sustainability researches, is an interdisciplinary approach to understand how systems deal with risks and uncertainties and minimize the influence of disasters. This research attempts to develop a macro-micro hierarchical resilience measurement model for tourism cities from a resident perception-based approach. Using Sanya as the case study area and following rigorous procedures for measurement development, a measurement scale was firstly developed. Secondly, an exploratory structural equation model (ESEM) was developed to explore the multidimensionality of each domain, and a bifactor-exploratory structural equation model (Bifactor-ESEM) was developed to identify the overarching construct of tourism city resilience. From both macro level and micro level, five domains (social, economy, environment, institution, and knowledge) and ten factors overarching tourism city resilience structure are identified.

**Keywords:** *General resilience; measurement model; sustainability; tourism panarchy; urban resilience*

## Rural Destination Image and Branding in China

*Xialei DUAN*

Department of Geography and Resource Management  
The Chinese University of Hong Kong, Hong Kong SAR, China

Rural tourism has been a hot topic in China in the last two decades. However, the development of rural tourism is quite unbalanced in terms of tourist arrivals and economic benefits. Some rural destinations are much more famous than the others who have similar resources. One of the major reasons lies in the effectiveness of destination branding. It is widely accepted that destination image is an integral and influential part of a traveller's decision-making process and consequently affects one's travel behaviour. Destination marketing authorities at all levels have an ultimate goal of building strong and positive images for their destinations. The extent to which image building benefits its target can be greater if it takes place in the context of branding. This research attempts to investigate the essential attributes of a rural destination image and construct a destination branding model specifically for rural tourism in China in the hope to fill the research gap of current studies on destination branding.

This research has three main research objectives: 1) to investigate the attributes affecting rural destination image in China; 2) to test the relationship between tourist motives, tourist behavior and rural destination image; and 3) to assess the congruency between the projected and perceived destination image of rural destinations.

Factor analysis is adopted in identifying the key attributes of rural destination image. Upon identifying the essential components, canonical correlation analysis is used to test the relationship between tourist motives and destination image. Following that, logistic regression is employed to test the relationship between rural destination image and tourist behaviour. Then, projected and perceived destination image of rural destinations are compared by using the method of content analysis and correspondence analysis. The contents included in official websites with the contents in UGC websites are compared, which helps to understand the gap between projected and perceived rural destination image. Based on the assessed gap between the projected and perceived image, information on building the appropriate image of rural destinations in China can be obtained.

**Keywords:** *China; destination branding; rural tourism; tourist behaviour; tourist motivation*

## **Tourism Ethnography and Researcher's Identities: Experience in Malaysia**

*Frankie Keng Hang FAN, Sai Leung NG*

Department of Geography and Resource Management  
The Chinese University of Hong Kong, Hong Kong SAR, China

I am an ethnic Chinese from Macau who has been doing field studies with local communities in Malaysia in the past four years. My case study was in Taman Negara National Park, looking particularly at the collaboration and conflicts between the Indigenous Batek, Malays and Malaysian Chinese in tourism development. In my presentation, I will first review the different options in qualitative research in tourism field studies, and why I chose ethnography as a starting point. In general, ethnography means observing from the point of view of the subject of the study, which allows research questions to emerge from the field and avoids artificial settings such as using questionnaires or formal interviews. Then, I will explain how tourism studies change the way how ethnography is traditionally done in anthropology. One of most obvious changes is that it provides the tourism researcher with an additional 'tourist' identity compared to the purely 'outsider-insider' dichotomy. I will also discuss other challenges and cultural barriers I have faced while operating 'the field' as a foreign but Asian researcher in Malaysia, and how I have dealt with each of them, such as language barrier, local conflicts, sensitive topics, uncertainties, access, and my internal struggles. In the future, I hope to write a paper that contributes to the tourism ethnography method as well as the exploration of the researcher's identities as an Asian field researcher in another Asian country, which is currently a gap in the academic literature in tourism methodology, as most researchers going aboard for fieldwork are from western countries.

**Keywords:** *Asian researcher; fieldwork; Malaysia; researcher's identities; tourism ethnography*

## **A Study on the Relationship Perception Between Tourism Impact and Life Quality of Community Residents at Tourist Destinations**

*Anxi GUO*

School of Hospitality Management  
Shanghai Business School, China

*Ying SHEN, Yingzhi GUO*

Department of Tourism  
Fudan University, China

Based on the bottom-up spillover theory, a structural relationship model of perception dimensions between tourism impact and the quality of life is constructed. Taking some tourist destinations in the representative provinces of eastern, central and western China as examples, the relationship between community residents' perceptions of tourism impact and the quality of life is empirically studied. Gender was used as a regulating variable to analyze whether there were gender differences in the influence of tourism impact perception on the quality of life. The results show that: (1) Cultural impact perception, environmental impact perception, social impact perception of family relationship, environmental impact perception, social impact perception of economic conditions, and social impact perception have a significant positive impact on leisure and entertainment perception; (2) Economic impact perception of family relationship, economic condition perception and leisure entertainment perception, cultural impact perception of economic conditions and leisure entertainment perception, and environmental impact perception have no significant impact on leisure and entertainment perception; (3) There are gender differences in the relationship between cultural impact perception, environmental impact perception, social impact perception, and family relationship perception, as well as between cultural impact perception and leisure entertainment perception.

**Keywords:** *Community residents; gender; life quality perception; tourist destination; tourism impact perception*

**Revitalization and Innovation in Rural Tourism:  
A Case Study of Machong Town**

*Kaiying GUO*

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Rural tourism is a typical way to develop rural and remote countryside in China, which is titled as a poverty alleviation project by the government. Thus, many country places try various devices to develop rural tourism in recent years. However, those rural tourist destinations do not develop in the way how they were supposed to be. Problems arise in the course of development, like homogeneity, stagnation and loss of energy. This study aims to discuss how to make a rural destination fresh and innovative, which can present local characteristics and achieve sustainable development. Machong is a rural town of Dongguan but it is adjacent to Guangzhou, which depends on its agriculture. It is named as the ‘Base of Gain’ in the Pearl River Delta. To improve the local industrial structure, industry integration happens between agriculture and tourism in Machong, which provides a new way to refresh the local economy. Therefore, Machong may become a case to study how to promote revitalization and innovation in rural tourism. In this study, it reflects how Machong integrates agriculture, local culture and tourism, and a research is conducted among local community and visitors.

**Keywords:** *Homogeneity; innovation; revitalization; rural tourism*



**A Study on the Relationship Between Impact Perception  
and Residents' Support for Tourism Development:  
A Regulatory Role of Trust in Tourism Development Company**

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Based on a questionnaire survey of 399 residents in Wuzhen and on the basis of the social exchange theory, taking negative tourism impact perception as an intermediary and trust in tourism development company as adjustment, this paper discusses the influence mechanism of positive tourism impact perception on residents' support for tourism development. The results show that positive tourism perception can significantly weaken the perception of negative tourism impacts. Negative tourism impact perception plays a partial intermediary role in the relationship between positive tourism impact perception and residents' support for tourism development. Trust in tourism development company regulates the negative impact of perceived negative tourism impact on residents' support for tourism development.

**Keywords:** *Social exchange theory; support tourism development; tourism impact perception; trust in tourism development company*

**Cultural Heritage Conservation and Film-induced Tourism:  
Place-making and Branding Management in Hong Kong and Macau**

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There are various approaches to appreciate and consume a heritage site. It is not sufficient to understand the significance of a heritage building based on its architectural structure alone. The author chose to study Hong Kong's and Macau's cultural heritage through films of the last three decades to study the relations between branding, place-making, and heritage conservation. With the contrast of the sites with the visual heritage reflected from these movies, decoration and historical conservation are needed to develop a touristic place-making strategy and enhance the effectiveness of branding management after the gradual changes in landscape over the years. Sites in Central, Wanchai, and Tsim Sha Tsui in Hong Kong are popular spots for film shooting which overlap the major shopping districts. The movies starring Leslie Cheung (張國榮) and *Dot 2 Do* (《點對點》) will be covered in order to discuss the differences between branding management and place-making strategy respectively. Unlike the strong film industry background, Macau provides a nostalgic imagination of the good old days with its world cultural heritage. Movies like the romantic love story *Isabella* (《伊莎貝拉》) and some action films directed by Johnnie To (杜琪峯) will be used as the cases to illustrate the importance of film making and film-induced tourists to Macau. It will be interesting to appreciate the responses of film-induced tourists to the many changes which today we take for granted since most of the Macau tourists are gamblers. Not only have the old buildings changed remarkable as shown in these films, but a rich heritage of the enclave can also be found.

**Keywords:** *Branding; cultural heritage; film-induced; place-making*

# Is Adaptive Reuse a Sustainable Approach for Heritage Conservation? The Case in Hong Kong

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Over the past decade, heritage conservation has become a global concern and the conservation practice has experienced a paradigm shift: from simply ‘connecting the past to the present’ to reusing the built heritage in a sustainable manner in order to integrate the historic structure into the modern urban community. Adaptive reuse has been widely adopted to enable sustainable heritage conservation, arguing that giving a new life to the historic structure not only benefits the environment but also generates economic interest and creates social value to the community. Under the Historic Revitalisation Scheme launched in 2008, a number of heritage buildings in Hong Kong have been converted into hospitality facilities, including hotels, hostels, restaurants, museums, art centers, etc. This paper examines the policy of heritage conservation and heritage building adaptive reuse cases in Hong Kong through a desktop study and interviews with preservationists and development professionals. The findings reveal that the change of the forms or uses of the heritage is not the main concern while a mechanism of adaptive reuse decision-making is the core element that leads to sustainable development.

**Keywords:** *Adaptive reuse; decision-making; heritage conservation; sustainable development*

**Backpacker Destinations and the Mobilities Paradigm:  
Place-making on the Move**

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Despite the arrival of the mobilities paradigm over ten years ago, in tourism studies the destination is still commonly understood in overly static ways: ‘areas’, ‘districts’, ‘discrete geographical units’ are a few of the immobile terms used to describe tourist destinations. Such static renderings of destination downplay a fundamental aspect of tourism – that tourists move, and by doing so they enact destinations while being mobile. In this presentation, I explore how backpackers make place on the move. In doing so, I develop a more open and conditional understanding of the quintessential tourist place – the destination – by bringing it into dialogue with the mobilities paradigm. Three distinct destinations that I am calling the node, the abode and the road were enacted by backpackers. The node is a meeting point for mobile people. The abode is where backpackers make themselves at home in movement. The road is a destination that moves. The presentation demonstrates how processes of place-making in the backpacking context involve a complex interplay between mobilities and practices.

**Keywords:** *Backpacking; destinations; place-making; tourism mobilities*

## **Risk Level of Rock Climbing Crag in Hong Kong from a Geographic Perspective**

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The hilly topography of Hong Kong facilitates the popularity of outdoor rock climbing. Yet rock climbing is perceived as a dangerous and high-risk sport. The study investigated and evaluated the risk levels of 22 popular rock climbing crags in Hong Kong. Results indicated that rock strength was the most important factor to determine the risk level of rock climbing crags. All studied crags were generally 'safe' and suitable for rock climbing if they were properly used. This study may cast light on how to provide a safe environment for outdoor sports and activities in Hong Kong.

**Keywords:** *Hong Kong; outdoor sport; rock climbing; recreation risk and safety*

## **Assessing the Extent of Sustainable Tourism Development in Nam Du Archipelago, Kien Giang Province, Vietnam**

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The aim of this research is to analyze the level of sustainable tourism development in the Nam Du archipelago, Vietnam, from the perspective of the local people and tourists by the methods of descriptive statistics and explorer factor analysis. Questionnaires were conducted with a total of 128 local residents and 116 visitors. From the perspective of the local people, the research reveals that there are ten factors affecting sustainable tourism development in Nam Du archipelago, namely: (1) social security and traffic accidents, (2) economic development, (3) garbage status, (4) management of local government, (5) development planning and distribution of tourism benefits, (6) cultural value, (7) return of tourist and travel time, (8) satisfaction, (9) price of goods and services, and (10) warning and rescue system. However, visitors only identified seven factors affecting sustainable tourism development in Nam Du archipelago, including (1) garbage status, (2) management of local government, (3) economic development and social security and order, (4) satisfaction, (5) cultural value, (6) price of goods and services, and (7) rescue and recreation system. The paper also makes a comparison of the similarities and differences between the opinions of the two groups. The results of this study will benefit the management of local authorities, tourist agencies, local business owners and residents. Besides, this paper proposes some solutions for sustainable tourism development in Nam Du for the future.

**Keywords:** *Factors; local and tourist perception; Nam Du archipelago; sustainable tourism*

**How Government Matters in Green Business Events:  
A Case Study of the Canton Fair in China**

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This paper highlights innovation from both theoretical and practical perspectives. Theoretically, it applies the new concept of ‘green event’ to practice, and in particular it explores the interactions of multiple stakeholders in a green business event (the government, organizer, contractors and exhibitors). Practically, it is an entirely new collection covering innovations in concept, policy and practical operation. We selected the Canton Fair as a government-led business event that successfully implemented green practices. Semi-structured interviews, participant observation and documentary analysis were employed for data collection. Underpinned by the knowledge diffusion framework, the study identifies stakeholder relationships in the initiation, restructuring, clarifying and routinizing stages and reveals the dynamics of green business event development. Constrained by economic and cultural development, green business events remain at a conceptual level in China. Central government participation strongly facilitated the implementation of green practices at the Canton Fair by binding stakeholders’ interests. This study disentangles the intricacies related to the governance of green business events in a centralized context. During the transitional period from economic-oriented to ecological construction, green development can only be achieved effectively by the government in China.

**Keywords:** *Canton Fair; government; green business event; knowledge diffusion; policy innovation*

## **The Role of Sociodemographic Characteristics in the Travel Motivation and Satisfaction of Tourists in Forest Protected Areas in South China**

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Sociodemographic characteristics, travel motivation and satisfaction have long been suggested to be the predictors of travel behavior and intention of tourists. Meanwhile, most studies focus on tourists from Western countries and researches on Chinese tourist is largely inadequate. Questionnaire surveys were conducted in the well-known Nanling National Forest Park and Dinghushan National Nature Reserve in South China to investigate the role of Chinese tourists' sociodemographic characteristics in their travel motivation and satisfaction. Several important findings have been resulted: 1) Tourists' satisfaction on the management and the educational value of the forest protected areas in South China was negatively correlated to their level of education; 2) The motivation of relaxation and nature exploration was positively correlated to age; 3) Motivation in terms of social influence was negatively correlated to education level. Various Chinese cultures in relationship with sociodemographic characteristics were suggested to be the main influence that shape the motivation and behavior of tourist. These cultural differences have marked the discrepancy between Chinese and Western tourists, showing that traditional studies conducted in Western society may not have direct implications on Chinese tourists. The findings of our study provide clues for the management of nature-based destinations to accommodate the escalating number of Chinese tourists.

**Keywords:** *Ecotourism; protected area; satisfaction; South China; travel motivation*



**Visual Research Methodology:  
Its Place in the Pedagogy of Field Trips**

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*Teach me and I will forget.*

*Show me and I may remember.*

*Involve me and I will understand*

[Ancient Chinese proverb attributed to Xun Kuang, circa 280B.C.]

The genesis for this paper grew out of a desire to strengthen pedagogical and research outcomes from field trips organized on an annual basis for Master students and simultaneously to make the trips more fulfilling as an active experiential learning opportunity for the students. In researching field trips generally it became apparent that in the field of tourism a relatively neglected methodology, that of visual anthropology, offers prospects for achieving these twin objectives. While taking photographs is a fundamental activity for millions of tourists and this phenomenon has been researched from a number of angles, the use of photography as a methodology, not only to record but to generate tourism information as the major component of research-oriented data collection, is comparatively novel. When the method is then applied for a rapid appraisal, it assumes an additional degree of innovation. As we continued to explore how to maximize field trips, a range of other objectives were also identified that could be embedded in the field trip experience. Our design thus assumed multiple pedagogical and research features. The result is a novel approach to investigating sustainability and resilience of visitation to Cheung Chau, an outer island of Hong Kong, through the medium of a field trip. A key element of this multi-methods approach is to address the gap in knowledge by expanding our understanding of the role that visual anthropology can play in generating data for a Rapid Appraisal, thus contributing to improved learning and research outcomes of fieldtrips.

**Keywords:** *Field trips pedagogy; photography; research methodology; visual anthropology*

## **The Basic Laws of Tourism Stupidity**

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A concept of smart tourism has been popularised in tourism research in the past decade. Smart tourism emphasises the application of information and communication technology to enhance tourist experience and ensure sustainability of tourist destinations. The word smart is traditionally used as a synonym of ‘clever’ or ‘intelligent’ and an antonym of ‘stupid’. Therefore, this paper aims to conceptualise various manifestations of tourism in terms of its intelligence. The present paper applies the framework developed by Cipolla (2011) in *The Basic Laws of Human Stupidity*. The framework places all people on two axes: those that provide losses/benefits to themselves and losses/benefits to others, thus resulting in four quadrants. Considering that tourism can be viewed from a demand perspective as an activity undertaken by tourists, the paper first discusses examples of intelligent and stupid tourists. It then takes a view of tourism as a business to provide examples of stupid and intelligent tourism businesses. Lastly, tourism is viewed from the planning and development perspective by adopting the framework to identify stupid and intelligent destinations. Such conceptualisation contributes to studies of the taxonomy of tourism. Moreover, it critiques the over-emphasis on technology as a means of achieving sustainable tourism development and the hopeful view of intelligence of various tourism actors.

**Keywords:** *Smart tourism; tourism intelligence; tourism stupidity; tourism taxonomy*

**Sports for Tourism:  
Developing Hot Air Ballooning in Taiwan**

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Sports tourism is an emerging segment of the world's largest and fastest-growing industry. Sports tourism capitalizes on the relationship between tourism and the high-profile, multi-billion dollar sports industry. Sport is a growing segment of the tourism industry, and therefore the impact of sports tourism can be categorized in four aspects, namely sport and tourism as economic activities, sports activity holidays, major sports facilities and events as an attraction for visitors, and sport and tourism as part of regeneration strategies for cities and regions. Hot air ballooning is a form of popular leisure activity in Taiwan owing to government support in promoting the activity. This study aims to address the opportunities and constraints facing the development of hot air ballooning as a leisure activity in Taiwan.

**Keywords:** *Aeronautic sport; hot air balloon; leisure; sports tourism; Taiwan*

**Reflection on Responsible Tourism:  
A Preliminary Study on Chinese Tourist Behaviors in Laos**

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Historically, Chinese people had a tradition of traveling abroad for cross-cultural communication. Now, outbound tourism has been developing rapidly and China becomes the largest source of outbound tourists in the world. Therefore, it is necessary to research on Chinese tourists' performance and perceptions. In recent years, more and more Chinese tourists have chosen Southeast Asian countries as destinations and Laos is one of them. In this study, data was collected from the Mafeng travel site and 120 long travel notes written by Chinese tourists who visited Laos were selected. Through the criteria of 'Responsible Tourism Behavior' established by tourism organizations, tourism governments, tourism suppliers, and the literature on responsible tourism, tourists' behaviors in travel writings are evaluated by narrative analysis. The research found that Chinese tourists are not free of responsibilities in travel. They exhibited responsible behaviors with clear awareness of environmental, economic and social responsibilities, and they specially provided detailed guides on responsible tourism to other tourists. Besides, tourists also engaged in responsible behaviors with little awareness. What the tourists always cared about was their own experience in Laos, which drove them to exhibit responsible behaviors such as consuming local food and products to pursue cultural differences. However, unfamiliarity and insecurity are the constant concerns of Chinese outbound tourists, which may constrain their engagement. In general, tourist behaviors are rather structured. Lastly, it is worth pondering whether tourists are empowered to exhibit responsible behaviors. The researchers' confusion with regards to the tourists is whether responsibility should be considered as the care for the poor. Some people think that this can be a kind of help for the disadvantaged groups. However, this help with sympathy does not recognize the equal relationship between the locals and tourists. There is no exact answer yet.

**Keywords:** *Chinese tourists; Laos; responsible tourism; travel behavior*

## **Low-carbon Travel in Hong Kong: A Local Attempt to Respond to Climate Change**

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In Hong Kong, outbound tourism is observed as a popular activity among many citizens. With frequent outbound air-travels, especially those to East and Southeast Asian destinations, the carbon footprint (CF) per capita of Hong Kong is enormous. CF per capita produced by aircraft is 1.44 tons per annum and contributes almost one-fourth of the total domestic CF per capita. As air travel is not regarded as domestic emission, such contribution to greenhouse gas emission is often unattended. On the other hand, albeit having a lot of natural tourism resources, local tourism may not be a popular topic among Hongkongers.

V'air Hong Kong, a non-governmental organization initiated by a team of university students, attempts to adopt a bottom-up approach to raise public awareness and new discussions about combating climate change. In order to promote local tourism as a new lifestyle as an alternative to frequent air travel, the team makes an effort to improve the inadequacy of the current situation, including the fragmentation of information, the lack of educational or meaningful resources, etc.

More ambitiously, not only does V'air Hong Kong experiment with using 'local tourism' to create a more sustainable tourism practice, but it also makes local tourism a tool to encourage actions responding to climate change in a proactive way. V'air Hong Kong advocates the concept of 'low-carbon local tourism': Through online educational materials and hosting local tours, the team merges environmental and conservation topics into local travel experiences in order to advance participants' knowledge. It is expected that local tourists will be able to develop a sense of place attachment, environmental awareness and, in the long term, an environmentally friendly lifestyle.

Although the experiment started in a small scale, the concept has successfully attracted public and government attention. This also proves that with innovative initiatives, tourism has the potential to be a medium to link topics like environmental awareness and carbon literacy, and create a new dimension of discussion between climate change and sustainable tourism.

**Keywords:** *Bottom-up initiative; carbon emission of air travel; carbon literacy; local tourism; low-carbon tourism*

**Technology for Running:  
Exploring the Role of Digital Devices in Running Experience**

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With the running fever enrolling China, more and more people go running and install diverse running apps. Wearable devices also appeared during this upsurge. These new technology tools have shaped new ways of running experience both mentally and behaviorally. However, there are few related research and a lack of in-depth investigation on the effect of the technology. The purpose of the current study is to explore the influence of digital devices on runners' running experience. More exactly, the study aims to further explore what kinds of experiences runners and digital device users have during running, and how technology devices work on running while being both online and offline. A total of 17 semi-structured interviews and participant observation were conducted for data collection. The study found that recording and socializing were the two main use functions for runners. Based on the varying degrees of using recording and socializing functions, four types of users with different running experiences emerge accordingly. Moreover, as the digital devices motivate runners to run more via their rich functionality, runners have a higher probability to rely on these digital tools, which have become a part of their running experience. This study represents an attempt to cultivate a deeper understanding of the role of the technology in running, the most popular leisure activity in China. It is hoped that the finding of this study will encourage future research to further advance the understanding on the relationship between technology and running.

**Keywords:** *Running apps; running experience; technology; wearable devices*

**Do More or Less? The Motives and Impacts of Exhibitors’  
Basic and Advanced CSR Practices in Green Business Event**

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The exhibition industry could bring a multiplier effect on the local economy. However, except the economic and social benefits that most literature has discussed, few scholars have turned their attention to the negative impacts or social costs caused by exhibitions, including disorder, congestion, and environmental pollution. Noticing the negative influences of exhibitions on the local environment and society, leading countries in exhibitions like Germany, U.S., and Japan began to advocate Green Fairs and corporate social responsibility (CSR) in the exhibition industry, showing a greater concern on sustainable and innovative management. This sustainable transition requires systematic managerial innovation in venue management, exhibition operation, and stakeholders’ involvement.

In China, there has been an extensive transition from economy-focused to sustainable development. Along with the rapid emergence and expansion of the exhibition industry, negative environmental and social problems have been noticed. Large-scale booth construction and dismantlement typically generate enormous amount of waste, increasing the cost and pressure to the host city. Furthermore, the hazardous substance contained in those waste (e.g., formaldehyde and dust) would threaten on-site workers’ health and pollute the environment. As a result, the Ministry of Commerce issued the Green Initiatives in Canton Fair (GICF) in 2014; the most important item was to implement green booth construction and dismantling in Canton Fair. In the managerial innovation process, apart from institutional innovation, the Canton Fair also promoted the concept of Green Fairs to stakeholders and encouraged them to take their social responsibilities. It is worth noting that as the core members of the exhibition, the exhibitors’ responses varied: some simply reacted to what GICF required while others voluntarily carried out socially responsible initiatives beyond the requirement.

Therefore, it would be interesting to investigate why exhibitors engaged in different levels or types of CSR, and if such differences in the levels or types of CSR engagement were related to their performance at the fair. By surveying 202 exhibitors, this research contributes to the literature by proposing two dimensions of CSR and addressing different motives and impacts of basic and advanced CSR practices. Moreover, this research highlights the importance of the key stakeholders' involvement in a managerial innovation system when promoting sustainable development.

**Keywords:** *Canton Fair; CSR; green fair; managerial innovation; sustainability*



**An Ecotourism Scenario Game for Education Enhancement in Tourism Study:  
Game-based Learning in Ecotourism Education**

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With the rapid development of information and communication technology and e-learning, the conventional modes of lecturing and knowledge transfer also have to incorporate innovative ways of teaching and technological advancements. Game-based learning is not new and has been widely applied to various academic disciplines. Tourism studies often integrate field visit and classroom lecturing, but a virtual and scenario-based experience in some real-life cases benefits both instructors and learners to stimulate discussions on the circumstances of tourism planning and management.

The Ecotourism Scenario Game is an educational platform simulating an indigenous community in the Amazon rainforest in Peru. Combining conceptual/theoretical knowledge, real-world information and a hypothetical storyline, this game allows students to make decisions in different scenarios in the development process. Instructors may deliver knowledge of ecotourism, such as tourism impact assessment, destination planning and visitor management, at certain stages of the game. Some common dilemmas among different parties are designed along the storyline and the students are encouraged to critically think about and justify their decisions in an attempt to balance multi-stakeholders' interests and achieve sustainable tourism development.

This game effectively integrates conventional lecturing, class interactions and e-learning application into tourism classes. The platform also allows students to experience the scenarios outside the classroom, either individually or group-based, which enhances learning effectiveness. A focus group study on the effectiveness of knowledge transfer is undertaken by sampling 66 undergraduate students from various disciplines in a university.

**Keywords:** *Ecotourism; game-based learning; scenario game; tourism*

## **Development of Cultural Heritage Tourism in Lei Yue Mun, Hong Kong: Feasibility, Impact and Prospect**

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Driven by the need for Hong Kong to diversify its tourism resources, together with the increasing interest towards cultural heritage tourism among the public, Lei Yue Mun is found to contain a few heritage assets which are believed to have the potential for developing cultural heritage tourism. The development potential of cultural heritage tourism in Lei Yue Mun has been assessed by factors including the attractiveness, cultural significance and quantity of the heritage assets, accessibility of Lei Yue Mun, proximity to other assets, compatibility between the heritage assets and the surroundings, and auxiliary facilities and services in Lei Yue Mun. The development potential was found to be relatively high as a positive attitude and support from different stakeholders were received, and a majority of the respondents were satisfied with the factors except attractiveness, quantity, accessibility, proximity to other assets, choices of handicraft retail stores, adequacy of public toilets, signs clarity, quantity and quality of recreational facilities, and quantity of car parks/parking space. Improvement in these aspects has to be carried out in order to further increase the development potential of cultural heritage tourism in Lei Yue Mun. Major possible positive impacts that would be brought to the site and Lei Yue Mun include economic benefits, a rise in the awareness of cultural conservation, and the promotion of the development of tourism in Hong Kong. For the major negative impacts, they include the destruction or pollution of the environment, crowdedness, and loss of the original characteristics of the area. For the recommendations on the future development of cultural heritage tourism in Lei Yue Mun, it is suggested that the government should improve the auxiliary, supporting, and transportation facilities, have a more active role in organizing cultural activities, and enhance the promotion of Hong Kong heritage assets and cultural heritage tourism to tourists.

**Keywords:** *Cultural heritage tourism; facilities; heritage assets; Lei Yue Mun*

**The Influence of Dynamic Demonstration on Artisans' Lifestyle:  
A Case Study of the Workmanship Demonstration Pavilion, Hangzhou**

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Museums are usually regarded as the places for displaying cultural relics. With the increasing importance of intangible cultural heritage, the function of heritage museums has also changed. Compared with traditional static display, the way of dynamic demonstration with craftsmen's on-site production to protect and promote intangible cultural heritage projects has been used in the Workmanship Demonstration Pavilion, Hangzhou, China. Differing from tangible cultural heritage, the crafting of intangible cultural heritage is influenced by the handicraftsmen's personality and their lifestyles, which in return could further impact on their crafting. However, current research on intangible cultural heritage in the Chinese tourism academia mainly concentrates on resource protection and utilization, while the personality of handicraftsmen receives little attention. Therefore, through the case of the Workmanship Demonstration Pavilion, this study explores the interaction between the lifestyle of the craftsmen and the process of crafting and the role of tourism in this process. Data was collected by semi-structured interviews with craftsmen, administrators and tourists. The main findings include: (1) The form of dynamic demonstration changes the lifestyle of the craftsmen and makes them play multiple roles in their work. They are not only inheritors of intangible cultural heritage but also contract workers, project narrators and products salesman; (2) The changed lifestyle of craftsmen affects their performance by mixing their 'backstage' and 'frontstage'; (3) The transformation conversely affects the craftsmanship, which is mainly embodied in innovation aspects; (4) With the involvement of tourism, this interaction further raises authenticity issues. The results could provide some implications for the protection and utilization of intangible cultural heritage.

**Keywords:** *Authenticity; dynamic demonstration; intangible cultural heritage; lifestyle; Workmanship Demonstration Pavilion*

**Assessing the Community-based Tourism Development in Hong Kong:  
A Comparative Study of Peng Chau and Yim Tin Tsai**

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Community-based tourism (CBT) has been developed worldwide over the past few decades. Amidst the socio-cultural influences brought by globalization, local communities have a strong interaction with the outside urban city. The influx of tourists and the resulting issues could degrade the community assets when the local community lacks proper planning and management works. Community-based tourism is advocated as a tool to achieve sustainable tourism. It emphasizes community engagement as well as socio-economic and environmental benefits during the process. This research aims to assess the potential scores of CBT implementation in Peng Chau and Yim Tin Tsai (YTT), Hong Kong, and the local community attitude toward CBT development. The study shows that CBT should not be developed in Peng Chau because of local unwillingness, while YTT should focus on the details of CBT implementation.

**Keywords:** *Community engagement; community-based tourism; local community willingness; Peng Chau; sustainable tourism; Yim Tin Tsai*

## **The Standardization of Tourism Areas: Local Perspective and Tibet Experience**

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Tourism certification programs have made significant progress over the last decade. Standardization of tourism has the potential to contribute towards the achievement of sustainable tourism. However, most of the tourism certification is made on a global/country level and lacks social embedment in the local context. Such types of global/country standards are proven to be ineffective. China is a very diverse country; the standardization of the requirements of the national tourism certification has created problems in rural areas. This study addresses how Tibet tourism authorities have learned from these programs and tailored tourism to their own situation.

This study is a qualitative research in which data was collected by semi-structured interviews with authorities and managers of the scenic spots in Tibet. After analysis, the study finds that the Tibet people all agree that a tourism certification program provides a good guidance for them to develop tourism. However, they also pointed out that Tibet is different from other places in terms of its attractiveness and social, environmental and cultural context. Therefore, moderations are needed to form a local program to guide its development: 1) It is important to consider the local community in the development; 2) Community participation is an effective way to coordinate the relationship between community and tourism development; 3) Protecting ecological environment and enriching the locals' livelihoods are more important than economic income during tourism development in Tibet; 4) Highlighting local cultural characteristics and improving local tourism service awareness are the main ways to attract tourists to Tibet; 5) An attraction certification that considers the local context of Tibet can guide the sustainable tourism development of Tibet.

The research discusses how a tourism certification under local contexts in rural areas can be made. It will enrich the research results of the tourism standard in the local level and provide reference for the standardization of tourism development in remote areas.

**Keywords:** *Attraction certification; eco-protection; locality; sustainable tourism; Tibet*

**Smart Tourism and Co-creation of Experiences:  
How Sustainable can This be in Hong Kong?**

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The advent of ICT has transformed the experiences derived by tourists. The context of smart tourism has given rise to new kinds of destinations increasingly sought by “new” tourists. These tourists have access to new technologies that are often embedded to influence tourism experiences. Many tourists (including those that visit Hong Kong) are avid users of online resources. They use contents, create contents and share information on social media, allowing others to better understand destinations and create their own unique experiences. Already at destinations, activities and infrastructure are designed and established to complement what is becoming a trend of smart tourism. But what constitutes smart tourism has not been thoroughly defined. As the objective of smart tourism becomes intertwined with the notion of smart cities and smart living, it tends to improve the connectivity of and among people, support processes of businesses and generally improve the quality of life of people within a destination. As an exploratory study espoused by a theoretical conceptual framework, we intend to contextualize the trends and experiences that visitors derive as smart tourists. How do we define smart tourists or indeed smart tourism? How do tourists co-create experiences? As destinations like Hong Kong strive to design and establish smart societies, what are the possibilities that exist with regards to how smart tourism can be implemented? The study will also investigate and identify how infrastructure and the people will co-function in the era of smart tourism.

**Keywords:** *Hong Kong; smart destinations; smart tourism; tourist experiences; visitors*

**Route Tourism Planning and Management in Practice:  
A Comprehensive Study of Lantau Island's Connectivity**

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Tourism, which is currently experiencing a 4-5% decline, is one of the four pillars of the Hong Kong economy. From a regional perspective, Lantau Island, Hong Kong's largest offshore island with a high potential in sustainable tourism development, constitutes a predominant role in reviving the tourism stagnation. Applying the Macau walking tour route model in 2015 as the baseline of study, this study investigates tourist desirability and operational feasibility of route tourism on Lantau Island through suggesting four thematic tourist trails. Onsite observation, two phases of survey (SQ) and online questionnaire (OQ), and semi-structured interviews were carried out in August 2017 to April 2018. The planning of the routes was initiated from gathering tourist preferences on Lantau's attractions with a calculated weighted score during Phase 1 SOQ (n=208). A widened public participation in tourism planning was involved such that Phase 2 SOQ (n=217) provided implications on further adjustments of the 'tentative (T)' routes (TRT1-4) after collecting local (72%) and non-local (27%) tourist's quantitative and qualitative feedbacks. A high tourist desirability (83.7%, n=208) and acceptability with rankings given (6.23-6.41 out of 10 (n=216); compared to 8.33/10 in the previous Macau model) on the 'tentative (T)' routes (TRT1-4) supported the regional developmental approach. The four 'finalized (F)' thematic tourist routes (TRF 1-4) were one step forward to the 2017 Government Sustainable Lantau Blueprint, which centralizes the previous 'four separated Lantau clusters' into the proposed 'one big cluster' on Lantau Island with highly coordinated regional tourism planning and management.

**Keywords:** *Clustering; loyalty index; neighborhood unit planning model; regional connectivity; route tourist; tourist trails*

## **The Applicability and Limitations of ‘Smart Tourism’ in Enhancing Local Tourism Development: A Case Study of Hong Kong from a District-level Perspective**

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Hong Kong is not only a famous international tourist destination but also a populous city to develop local tourism. The government is proposing a blueprint and several development strategies to develop Hong Kong as a world-class premier tourist destination on a macro scale. Nevertheless, it usually neglects the existence and contribution of local efforts in enhancing Hong Kong’s attractiveness, and it hardly recognizes the recreational function of tourist spots for local citizens.

Smart tourism, a relatively new and emerging concept in the tourism field, is introduced by the government authority in Hong Kong. While whether this concept could be well applied is questioned, this presentation serves as one of the first attempts to review the applicability of ‘smart tourism’ in developing local tourism from a district-level perspective. The roles of District Councils, local NGOs, social enterprises and even ordinary citizens are observed and assessed to understand if smart tourism is the way out for making Hong Kong a better place for local and inbound tourism. ‘Smart’ ways, like communication technologies and youth-led or district-driven approaches, are also identified and evaluated.

The limitations of smart tourism are also acknowledged. Whether the concept could be realized properly depends very much on the adaptability of the bureaucratic system as well as the understanding, efforts and responsiveness of local groups and citizens. This presentation will also review the effectiveness of top-down and bottom-up approaches in developing local tourism within a district level.

**Keywords:** *District-level stakeholders; local recreation; local tourism; smart tourism*



**Understanding the Speaking Voice of Chinese Outbound Tourists  
With the Theory of Planned Behavior: A Study in Kunming, Yunnan**

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The issue of uncivilized conduct of Chinese outbound tourists has been frequently reported by the media since the last decade and taken seriously by the Chinese authority, yet emic study of the issue has rarely been done. This study attempts to understand the intention of Chinese outbound tourists in adopting the desirable conduct – lowering the speaking voice in public. The study employed the Theory of Planned Behavior and took place in Kunming, Yunnan, in March and April 2017. A total of 417 local respondents who would travel abroad in the near future answered the survey and 307 questionnaires were strictly selected for analysis. With the exploration of the elicited beliefs of the studied behaviors, the accepted referent persons for norm-setting and the external facilitating or discouraging factors, it was established that Attitude, Subjective Norm and Perceived Behavior Control were correlated with the Intention to perform the preferred behavior. Encouraging findings and implications were drawn as the base for further study and intervention strategy on civilized tourist behaviors.

**Keywords:** *Chinese outbound tourists; civilized conducts; responsible tourists; speaking voice; Theory of Planned Behavior*

**Is Sustainable Tourism Sustainable?**  
**Proposing Sustainable Tourism 2.0: The Quality of Mind (QoM) Approach**

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According to the UNWTO, Sustainable Tourism (ST) refers to ‘development that meets the needs of present tourists and host regions while protecting and enhancing opportunity for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems’. In essence, it is the introduction of an economic mechanism – a demand and supply management model that sustains the current and future needs of tourism (demand) and manages and maintains the resources which are often predominantly referred to as the cultural and ecological aspects (supply). Here, several capitalism concepts have been introduced with the demand curve, a diagonal upward slope, signifying the infinite human needs and a downward sloping curve characterizing the exhaustibility of resources. In order to achieve the ‘imaginary equilibrium’, commodification process needs to take place with first the identification process of what can be commodified (i.e. land zoning techniques such as The IUCN Protected Area Management Category System), followed by the bestowing of price (or cost) that can be as tangible as an entrance fee to a national park or as intangible as what we claimed to be the acceptable level of ‘measurable’ destruction made to our surrounding environment (e.g. Limits of Acceptable Change), entailing a trade-off or a compromising process. Such an instrumental and utilitarian discourse advocates modernity and progress, where success is driven by economic growth rather than human development.

With the core driver of tourists’ needs (demand) governing the ST mechanism, and the unchallenged assumption that a viable and profitable tourism industry is the ultimate goal of tourism planning, have we yet achieved sustainability?

In this poster presentation, I will first critically examine the current Sustainable Tourism Model – the problem with the dominance of capitalism and egotism in current sustainable tourism practice as well as the problem of common pool resources. In the second part, I will propose a new Sustainable Tourism Model 2.0 that would focus on human development which is currently lacking in many present-day tourism practices.

At the end of the presentation, I will propose future research directions with the employment of research techniques from social science – a whole new research area of the newly constructed model, Sustainable Tourism Model 2.0 – an area where current sustainable tourism studies have largely omitted.

**Keywords:** *Capitalism and egolism; human development; sustainable tourism; sustainable tourism model; tourism supply and demand*

**A Study on Social Media and Local Tourism in Hong Kong:  
Opportunities and Challenges**

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Technology has transformed our lives to a great extent. Therefore, what technology actually brings to us deserves greater concern. Because of the advancement of technology, social media has generated a lot of opportunities and challenges to the tourism industry. The goal of this study is to investigate the role of social media in tourism decision-making, the perception of different stakeholders, and the possible effects of social media on stakeholders, places, and tourism hotspot by adopting qualitative and quantitative data and SWOT analysis. This study shows that social media acts as a promotion and sharing tool in tourism. In social media-induced tourism, various advantages and disadvantages are brought to the destinations due to social media. Because of that, the externalities generated by tourism will pose threats and provide opportunities to the travel destinations. Implications, recommendations and further insights for the future development of social media-included tourism are also discussed to provide insights for further studies and management work.

**Keywords:** *Social media; social-media induced tourism; stakeholder perception; tourism decision-making*

## **The Impact of Restaurants' Remedies on the Repurchase Intention of Customers After Delivery Service Failure**

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It is widely recognized that delivery services have gained increasing popularity in contemporary urban life. Among them, food delivery service is almost a daily necessity for the people in China, especially in first- and second-tier cities. However, in the process of food delivery, there are still some problems, such as service timeliness and neglect of remarks. These problems could lead to a failure of delivery service. What is more, they may cause customers' dissatisfaction or drive them to broadcast negative reviews. In the case of delivery service failure, restaurants' remedies are particularly important. In this study, we took perceived value and merchants' remedy as the dependent variables and applied experimental research to analyze the impacts of perceived value and merchants' remedy on customers' repurchase intention. We also moderated the role of gender in this process. Based on the literature review, five hypotheses have been proposed: 1) Customers' perceived value has a significant impact on their repurchase intention; 2) Merchants' remedies have a significant impact on customers' repurchase intention; 3) Customers' gender influences their perceived value level and affects their repurchase intention; 4) In the context of service remediation, the effect of verbal compensation is more useful for women than for men; 5) In the context of service remediation, the effect of material compensation is more useful for men than for women.

This study found that the degree of customers' perceived value and merchants' remedies have significant impacts on customers' repurchase intention. At the same time, material compensation is more likely to promote customers' intention of repurchase than verbal compensation. Gender has a moderating effect on the effect of customers' perceived value and merchants' remedies on repurchase intention. In addition, the paper puts forward some suggestions on how to remedy delivery service failure for customers of different gender.

**Keywords:** *Delivery service; gender; merchants' remedies; perceived value; repurchase intention*

**The Impact of City Tourism Promotional Film on Brand Affects:  
An Empirical Analysis Based on Shanghai and Singapore Tourism Promotional Films**

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In the age of global tourism thrown into the new competition of branding, tourism promotional films have become an important window to display a city brand and have gained relevance as a key tool in the field of tourist destination research. Not only can a promotional film shape and promote a city's image as a tourist destination, but more importantly, it can build up the audience's brand affect and influence the brand attitude towards the city. In this context, we focus on deconstructing and analyzing the characteristic dimensions of tourism promotional films that influence audience's overall evaluation, and discuss the audience's affects and attitudes of the city on the basis of the overall evaluation. Combining the state of the art in the field of branding and the context of Chinese culture, this article studies how the audience's emotional attachment towards a particular city brand is not only determined by the 'real emotion' coming from one's heart but also the 'assumed emotion', which is the result of external influences such as social and cultural norms, reason, and obligations. Through empirical research, this article studies how tourism promotional films inspire the above two brand emotions and can have a positive impact on potential customers' attitudes. The conclusions of this research also provide valuable suggestions for city managers to scientifically design and produce tourism promotional films in the future.

Based on communication and psychology theories and the specific practice of tourism science, this article constructs a model to study the impact of tourism promotional films on the brand affects towards cities. It selects two international cities, Shanghai and Singapore, as research cases, and invited 418 viewers who have never been to these two cities to watch the tourism promotional videos and fill out survey questionnaires to test the models. The study identified understandability, appeal, hedonism and uniqueness as the four criteria that most significantly affected the audience's overall evaluation, and among the four, uniqueness had the most significant impact. On the contrary, public awareness of utilitarianism in advertising has not directly affected the overall evaluation of the videos. In addition, while Shanghai tourism promotional film effectively stimulated the audience's 'assumed emotion' and 'real emotion' which enhanced the audience's brand attitude towards the destination, Singapore's tourism promotional film only touched the audience's 'real emotion', while the 'assumed emotion' had almost no impact on viewers' attitudes.

In light of the results of this empirical research, the article suggests that both Shanghai and Singapore should pay more attention to the four dimensions of understandability, appeals, hedonism and uniqueness in the creation of tourism promotional films. Rather than providing specific travel route suggestions and detailed information on tourist attractions, presenting the city's tourism resources in a unique way significantly enhances the audience's overall evaluation of tourism promotional films. At the same time, this article suggests that Singapore should publish a version of the tourism promotional film for the Chinese market, focusing on the creation of 'real emotion'. The main goal is to arouse emotional resonance in the local audience and to enhance the brand affect and brand attitude towards the city. Unlike Singapore, Shanghai's tourism promotional films need to focus, while constructing 'real emotion', on also leveraging the 'assumed emotion' that will encourage the audience to convert positive brand affect into brand attitude.

**Keywords:** *Assumed emotion; brand affect; brand attitude; district tourism promotional films; real emotion*

## **A Study on the Relationship Perception Between Tourism Impact and Life Quality of Community Residents at Tourist Destinations**

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### **ABSTRACT**

Based on the bottom-up spillover theory, a structural relationship model of perception dimensions between tourism impact and the quality of life is constructed. Taking some tourist destinations in the representative provinces of eastern, central and western China as examples, the relationship between community residents' perceptions of tourism impact and the quality of life is empirically studied. Gender was used as a regulating variable to analyze whether there were gender differences in the influence of tourism impact perception on the quality of life. The results show that: (1) Cultural impact perception, environmental impact perception, social impact perception of family relationship, environmental impact perception, social impact perception of economic conditions, and social impact perception have a significant positive impact on leisure and entertainment perception; (2) Economic impact perception of family relationship, economic condition perception and leisure entertainment perception, cultural impact perception of economic conditions and leisure entertainment perception, and environmental impact perception have no significant impact on leisure and entertainment perception; (3) There are gender differences in the relationship between cultural impact perception, environmental impact perception, social impact perception, and family relationship perception, as well as between cultural impact perception and leisure entertainment perception.

**Keywords:** *Community residents; gender; life quality perception; tourist destination; tourism impact perception*

### **INTRODUCTION**

One of the purposes of tourism development in tourism areas is to improve the quality of life of community residents. However, the fact shows that when the scenic area and the community highly overlap, tourism development has positive impacts on community residents, but it also brings negative impacts on their quality of life. Community residents are the main stakeholders in the development of community tourism, and their perception of tourism impact is crucial to assessing the development of community tourism (Cottrell & Vaske, 2006). According to the theory of social exchange, if community residents have greater perceived benefits than perceived costs in tourism development, they will support tourism development, otherwise they may oppose tourism development (Lindberg & Johnson, 1997). Therefore, it is of great significance for the sustainable development of local tourism to understand the relationship between tourism impact perception and life quality perception of community residents.

In recent years, the perception of residents' quality of life at tourist destinations has received more attention from the tourism academic community. Research results are abundant, but there are also four deficiencies as follows: First, there are few empirical studies. Although tourism impact perception and life quality perception are related (Uysal, Sirgy, Woo & Kim, 2016), and that tourism development will affect the perception of the quality of life (Liao, So & Lam, 2016), empirical analysis of the relationship between the two remains relatively few. Second, research on the



relationship between tourism impact perception and quality of life perception is still not in-depth. Tourism impact perception has multidimensionality (Wall & Mathieson, 2006), and the quality of life perception is also a multi-dimensional construction. The relationship between the two subdivided dimensions needs to be further explored. Third, there is less research in the context of China. Existing researches mainly focus on western countries, and scholars tend to believe that tourism impact perception can predict the perception of the quality of life (Uysal et al., 2016). However, due to the differences between eastern and western cultures, western research may not be suitable for China. Conducting research in the context of China helps to increase the external validity of existing results. Therefore, further empirical test is needed in our country. Fourth, there is a lack of investigation in gender differences in the relationship between tourism impact perception and life quality perception. Because of the social and cultural differences between men and women, their psychological experiences and responses to tourism development are also different (Abdollahzadeh & Sharifzadeh, 2014; Guallar-Castillón, Sendino, Banegas, López-García & Rodríguez-Artalejo, 2005). Therefore, research on this can help to provide theoretical guidance for improving the perception of life quality of male and female residents. In fact, previous studies have shown that gender does have a significant impact on residents' perception of the impact on the community and the perception of the quality of life (Abdollahzadeh & Sharifzadeh, 2014; Wang & Harrill, 2009), but there has been no study to investigate whether there is gender differences in the relationship between the two.

Previous studies have pointed out that bottom-up spillover theory provides a theoretical basis for establishing the relationship between community residents' impact perception and the perception of the quality of life (Kim, Uysal & Sirgy, 2013). This study is based on the bottom-up spillover theory and builds a structural relationship model between the dimensions of the perception of tourism impact and the perception of the quality of life. Taking some tourist destinations in the representative provinces of eastern, central and western China as examples, this paper empirically studies the relationship between the two. In addition, through the analysis of the regulatory role of gender, the gender differences in the relationship between the two are clearly defined.

## LITERATURE REVIEW AND RESEARCH HYPOTHESES

### *Tourism impact perception and life quality perception*

Community residents' perception of impact refers to the subjective cognition of the relationship between the residents and the people in the development of tourism in their residential space and the change of their physical environment (Xu, Zhang, Wall, Cao & Zhang, 2009). The development of tourism will bring many impacts to community residents, mainly including four aspects: economic impact, cultural influence, environmental impact, and social impact. Community residents' perception of these tourism influences is called economic impact perception, cultural influence perception, environmental impact perception, and social impact perception.

In order to be able to more accurately assess the quality of life and reflect the perceived differences in the quality of life among individuals, most scholars advocate a definition of the quality of life from a multidimensional, subjective perspective (Carneiro & Eusébio, 2011; Costanza et al., 2007). In the tourism research literature, some scholars (Khizindar, 2012; Pavlič, Portolan & Puh, 2015) describe the quality of life as 'quality of life' (QOL for short), which is easily confused with the quality of life defined by an objective perspective. In order to distinguish the quality of life from that from the objective perspective and to highlight subjective perceptions and emotions of individuals in all aspects of life, this study adopts Yu, Chancellor and Cole's (2011) viewpoint, from which the subjective quality of life is expressed as 'perceived quality of life.' Based on the existing relevant research results, this study defines the perception of the residents' quality of life in the tourism community as the satisfaction of the residents of the tourism community in all aspects of their lives and the emotions obtained from the life experience.

The bottom-up spillover theory is the important basis for explaining why the perception of tourism influences the perception of the quality of life. The theory holds that life satisfaction consists of three levels: life care satisfaction, life dimension satisfaction, and overall life satisfaction. Overall life satisfaction is a function of life care satisfaction and life dimension satisfaction. Overall life

satisfaction is affected by the satisfaction of life dimensions, while the life dimension satisfaction is influenced by the life care satisfaction (Uysal, Perdue & Sirgy, 2012). According to this theory, the dimensions of perceived tourism impact belongs to the bottom layer, and the dimensions of perceived life quality belongs to the middle layer. The perception of tourism impact in the bottom layer affects the perception of the quality of life in the middle layer (Kim et al., 2013).

Tourism impact perception and life quality perception are related (Kim et al., 2013). Tourism is considered to be an effective tool for stimulating economic development, and it has a positive effect on increasing the economic income of the community residents and stimulating direct and indirect employment. Andereck and Nyaupane (2011) pointed out that tourism improves the quality of life by improving the living standards of community residents. Yu et al.'s (2011) and other studies confirmed that tourism economic impact perception has a significant positive effect on the perception of the quality of life. Besculides, Lee and McCormick (2002) and others believed that tourism promotes cultural exchanges between residents and tourists in the community and enhances their perception of the quality of life. Khizindar's (2012) study has shown that tourism cultural impact perception has a significant positive impact on quality of life perception. Yu et al.'s (2011) research believed that tourism environmental impact perception positively affects the perception of quality of life. Khizindar (2012) and Pavlić et al. (2015) believed that tourism social impact perception will positively affect the quality of life perception. Based on the above analysis, the following assumptions are made:

- **H1:** Economic impact perception has a significant positive impact on quality of life perception.
- **H2:** Cultural impact perception has a significant positive impact on quality of life perception.
- **H3:** Environmental impact perception has a significant positive impact on quality of life perception.
- **H4:** Social impact perception has a significant positive impact on quality of life perception.

#### *Gender regulation*

Due to the social and cultural differences between men and women, their perception and attitude towards tourism impact are also different (Tang & Zhu, 2007). Abdollahzadeh and Sharifzadeh's (2014) study found that gender is a regulatory factor of community residents' tourism impact perception. Harrill and Potts (2003) believed that men's perception of the impact of tourism economy is stronger than that of women due to differences in the social division of labor and role play. Wang and Harrill's (2009) study found that women have a stronger perception of tourism culture influence than men. Khizindar's (2012) study concluded that men's perception of tourism's social impact and environmental impact is stronger than that of women (Khizindar, 2012). In addition, Guallar-Castillón et al. (2005) believed that gender is related to the quality of life of community residents. Different sex groups focus on different areas of life. For example, a study using a Tanzanian community as an example found that men pay attention to money, children, and livestock, and women only focus on children and livestock. Therefore, differences exist in the perception of the quality of life between men and women (Buzinde, Kalavar & Melubo, 2014). In summary, the relationship between tourism impact perception and life quality perception may be influenced by gender. Based on the above analysis, the following assumptions are made:

- **H5:** There are significant differences between men and women in the relationship between economic impact perception and life quality perception.
- **H6:** There are significant differences between men and women in the relationship between cultural impact perception and life quality perception.
- **H7:** There are significant differences between men and women in the relationship between environmental impact perception and life quality perception.
- **H8:** There are significant differences between men and women in the relationship between social impact perception and life quality perception.

Based on the above literature review and research hypotheses, a conceptual model of the study was presented (Figure 1).

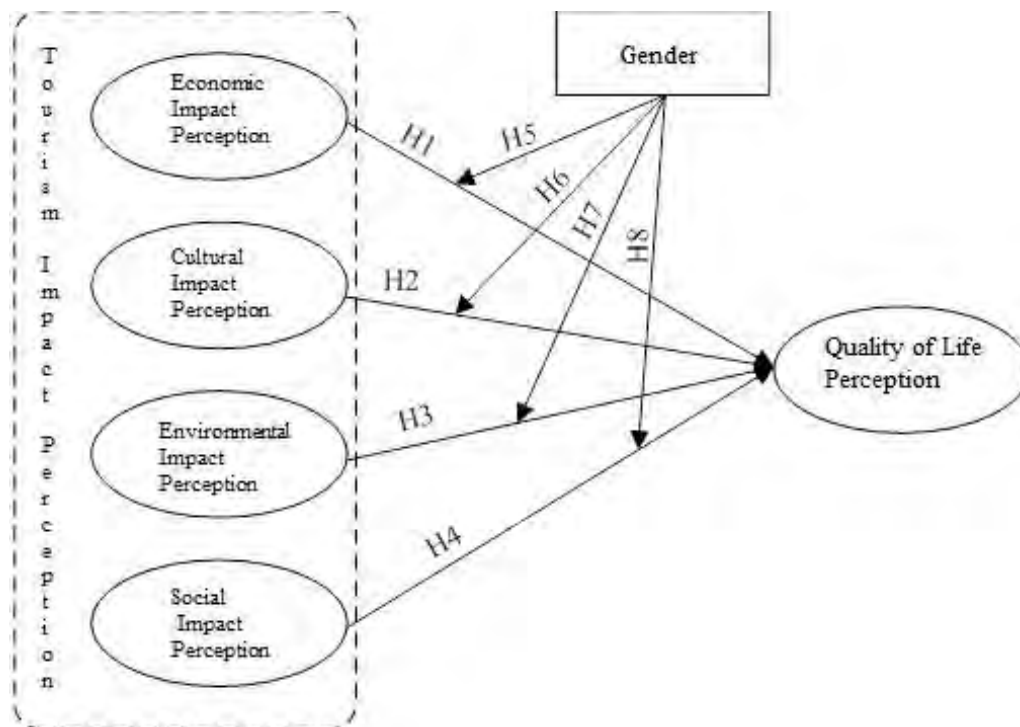


Figure 1: Conceptual model

## RESEARCH DESIGN AND METHODOLOGY

### Survey design

First of all, this study designed an initial questionnaire on the basis of literature review. Secondly, a discussion group was formed, composing of members of the research group and undergraduates, graduate students, and doctoral students of tourism management, which focused on whether the questions in the initial questionnaire were clear, the content was repeated, and the design was reasonable. The questionnaire was improved based on the discussion results. Finally, samples were collected through convenient sampling, and 50 samples including community residents, experts in tourism research, and middle and senior managers of tourism companies or the government were recruited. The questionnaire was further perfected according to the results of the preliminary investigation of the questionnaire, forming a formal investigation questionnaire. According to the results of the pre-survey, the questionnaire was further improved to form a formal questionnaire.

This study used a ready-made scale as a measurement tool. The English scale was selected from the authoritative international academic journals of the tourism management discipline. After being translated into Chinese, the task team had repeatedly considered whether the item was in accordance with the Chinese people's expression habits. The Chinese language scale was selected from domestic authoritative academic journals, and it was used by the research group to make multiple rounds of changes in the wording of the items and to determine whether the content was repeated or not. The formal survey questionnaire consisted of three parts, including the measurements of tourism impact perception, quality of life perception and demographic characteristics. The measurement of tourism impact perception referenced the studies by Khizindar (2012) and Kim et al. (2013), which included the four dimensions of economic impact perception, cultural impact perception, environmental impact perception, and social impact perception. A total of 19 questions were included, such as 'has attracted more investments for the local area'. Measurement of the quality of life referenced the study by Guo, Ye, Li, Jiang and Peng (2007). Since the scale was developed in the Chinese context, it was more accurate to measure the true perception of community residents. A total of 15 questions were included, such as 'you and your family are more closely linked than before'. All items were measured using the Likert 5-point subscale, with 1-5 being strongly disagree, disagree, neutral, agree, and strongly agree

respectively. Social demographic features included gender, age, occupation, education level, average monthly income, and family size.

#### *Data collection*

The formal survey was carried out by more than 40 undergraduates, masters' and doctoral students majoring in tourism management of Fudan University during the months of July, August and October in 2014, and July, August and October in 2015. The survey sites were some of the tourist destinations in eastern, central and western representative provinces in China, including Jinan in Shandong, Wuhu in Anhui, Changsha in Hunan, Zhangjiakou in Hubei, Lijiang in Yunnan, and Turpan in Xinjiang. The survey respondents were residents living in and around the scenic spots. The survey collected data using a convenient sampling method with about 150 questionnaires distributed at each tourist destination and collected on-site after being filled in by the respondents with the help of the investigators. A total of 950 questionnaires were issued and 900 valid questionnaires were retrieved, with an effective rate of 94.74%.

*Table 1: Demographic characteristics of the sample*

Category		N	%	Category		N	%	
Gender	Male	481	53.4	Education level	Illiterate	21	2.3	
	Female	419	46.6		Primary school	109	12.1	
Age	Under 20	139	15.4		Junior school	186	20.7	
	21-30	343	38.1		High school	132	14.7	
	31-40	197	21.9		Secondary school (Vocational school)	121	13.4	
	41-50	95	10.6		University	309	34.3	
	51-60	97	10.8		Master or above	22	2.4	
	Above 61	29	3.2		Average monthly income	Under 1000	55	6.1
Occupation	Student	218	24.2			1001-2000	133	14.8
	Teacher	58	6.4			2001-3000	192	21.3
	Government official	58	6.4	3001-4000		128	14.2	
	Soldier	10	1.1	4001-5000		89	9.9	
	Technical staff	74	8.2	5001-6000		93	10.3	
	Company employee	89	9.9	6001-7000		126	14.0	
	Service staff	60	6.7	Above 7000		84	9.3	
	Businessman/Self-employed	108	12.0	Family size		1	9	1.0
	Housewife	26	2.9			2	56	6.2
	Farmer/Fisherman	91	10.1		3	324	36.0	
	Unemployed	35	3.9		4	265	29.4	
	Retiree	35	3.9		5	144	16.0	
	Others	38	4.3		More than 6	102	11.3	

The sociodemographic characteristics of the sample (Table 1) were: in terms of gender, men accounted for 53.4% while women accounted for 46.6%, and the gender proportion did not differ too much. In terms of age, young and middle-aged people, aged 21 to 40, took up the main part, accounting for 60.0%. As for occupation, students, businessmen/self-employed, farmers, company employees, and technicians accounted for 64.4%. In terms of education level, 62.4% of the respondents attained high school, technical secondary school (vocational school), and university education. The average monthly income was 1001-4000 yuan, accounting for 50.3%. In terms of household population, the number of family members was 3-5, accounting for 81.4%.

#### *Data analysis*

The data analysis was conducted in four steps. In the first step, the total sample (S=900) was divided into sub-sample 1 (S1=400) and sub-sample 2 (S2=500) randomly. Using S1 for exploratory

factor analysis, the structure validity of the scale was tested. The second step was to use S2 for confirmatory factor analysis to test the subordinate relationship between the scale and the latent variables. In the third step, a structural equation model was used to analyze the dimension relationship between the perception of tourism impact and life quality. In the fourth step, multi-group analysis was adopted to investigate the regulation effect of gender on tourism impact perception and quality of life perception. All analyses were performed using the software of SPSS16.0 and AMOS17.0.

## RESEARCH RESULTS

### *Exploratory factor analysis*

Exploratory factor analysis was used to examine the structural validity of tourism impact perception and quality of life perception integration scale and determine whether it was necessary to eliminate the items that did not meet the requirements. The factor was extracted by principal component analysis method with the factor loading obtained by the maximum orthogonal rotation of variance and factor analysis was carried out based on the factor extraction principle of eigenvalue greater than 1. The results showed that the KMO value was 0.879 (greater than 0.7), and the Bartlett's sphere test had a significance of 0.000 (less than 0.001), indicating that it was suitable for factor analysis. Any item with a factor loading of less than 0.5 or two factors with a cross loading greater than 0.5 would be rejected. After factor analysis, ten items that did not meet the requirements, for example, 'improve the overall income of local residents', were eliminated. There were seven factors measured by 24 questions finally (i.e., economic impact perception, cultural impact perception, environmental impact perception, social impact perception, family relationship perception, economic condition perception, and leisure and entertainment perception). The factor loading of the remaining items were all greater than 0.5; there was no item with a cross loading of two factors greater than 0.5; the characteristic root of each factor was greater than 1; and the cumulative explained variance of 70.461%. This indicated that the purified scale had ideal structural validity. The results of the analysis are shown in Table 2.

According to the results of the exploratory factor analysis, the perception of the quality of life in the previous conceptual model was replaced by the dimensions of family relationship perception, economic condition perception, and leisure and entertainment perception, and the relationship between the dimensions of the perception of tourism impact and the dimensions of perceived quality of life was established. Correspondingly, the original hypotheses H1-H8 were adjusted to:

- **H1a-1c:** Economic impact perception has a significant positive effect on family relationship perception, economic condition perception, and leisure and entertainment perception respectively.
- **H2a-2c:** Cultural impact perception has a significant positive influence on family relationship perception, economic condition perception, and leisure and entertainment perception respectively.
- **H3a-3c:** Environmental impact perception has a significant positive influence on family relationship perception, economic condition perception, and leisure and entertainment perception respectively.
- **H4a-4c:** Social impact perception has a significant positive influence on family relationship perception, economic condition perception, and leisure and entertainment perception respectively.
- **H5a-5c:** There are significant differences between men and women in terms of economic impact perception and family relationship perception, economic condition perception, and leisure and entertainment perception.
- **H6a-6c:** There are significant differences between men and women in the perception of cultural influence perception and family relationship perception, economic condition perception, and leisure and entertainment perception.
- **H7a-7c:** There are significant differences between men and women in environmental impact perception and family relationship perception, economic condition perception, and leisure and entertainment perception.
- **H8a-8c:** There are significant differences between men and women in social influence perception and family relationship perception, economic condition perception, and leisure and entertainment perception.

*Table 2: Exploratory factor analysis results*

<b>Variable</b>	<b>Dimension</b>	<b>Item</b>	<b>Factor loading</b>	<b>Characteristic root</b>	<b>Cumulative interpretation variance (%)</b>	
Travel perception	Economic impact perception	Q1: Increases tourist spending in the local area	0.815	1.311	8.994	
		Q2: Local-foreign economic exchanges are more frequent	0.756			
		Q3: Has attracted more investments for the local area	0.682			
	Cultural impact perception	Q4: Develops and promotes buildings with local characteristics	0.769			
		Q5: Local residents and tourists have increased awareness of cultural protection	0.739			
		Q6: You are more actively involved in local cultural activities and have an increased sense of cultural belonging	0.744		8.199	21.379
		Q7: The two-way cultural exchange between local and source areas is strengthened and mutual understanding is promoted	0.622			
		Q8: Local culture allows visitors to experience life, emotions, religions and other characteristics	0.534			
	Environmental impact perception	Q9: The local environmental pollution has been improved	0.887			
		Q10: The local noise situation caused by recreation has been improved	0.863			
		Q11: Better protects the local natural ecological landscape	0.566			
	Social impact perception	Q12: Increases utilization value and efficiency of community recreational facilities	0.786			
		Q13: Promotes the development and improvement of the overall community development planning	0.776		1.464	39.265
		Q14: Meets the needs of the community residents engaged in leisure activities	0.585			
Quality of life perception	Family relationship perception	Q15: The relationship between you and your family is more sincere than before	0.854	2.134		
		Q16: Your daily contact with your family is closer than before	0.791			
		Q17: You and your family are more harmonious than before	0.790			
		Q18: Your overall assessment of family relationship is better than before	0.567			
	Economic condition perception	Q19: Your income is higher than before	0.824	1.055	59.766	
		Q20: You are economically more prosperous than before	0.813			
	Leisure and entertainment perception	Q21: There is more entertainment than before to regulate relaxation	0.846	1.792	70.461	
		Q22: There is more time than before to enjoy the beauty of life	0.734			
Q23: There is more fun provided by local tourist facilities than the past		0.727				
Q24: I spend my leisure time more happily than before		0.582				

Validity included both aggregate validity and discriminant validity. It is generally believed that a standardized factor loading of an item greater than 0.4, which is significant under a certain level of P value, indicates that a measurement model has good aggregate validity. It can be seen from Table 3 that the normalized factor loading of the item was between 0.599 and 0.900, which was greater than 0.4. The t value was between 14.533 and 22.808, which was significant when P value was less than 0.001. This showed that the measurement model had very good convergence validity. The discriminant validity is usually judged by whether the square root of the mean variance of the latent variables was greater than the correlation coefficient with other latent variables. If the former is greater than the latter, it means that there is an ideal discriminant validity between the latent variables. From Table 4, it can be seen that the square root of the average extraction variance of each latent variable was between 0.7301 and 0.8881, and the correlation coefficient was between 0.236 and 0.673, and that the former were all greater than the latter, which showed that there was sufficient discriminant validity between the latent variables. The confirmatory factor analysis results showed that the seven latent variables, such as economic impact perception, had good reliability and validity, which were in line with the requirements of structural equation modeling analysis in the next step.

*Table 3: Confirmatory factor analysis results*

Latent variable	Items	Standardized factor loading	T value	Combination reliability	Average extraction variance
Economic impact perception	Q1	0.720	17.014	0.7929	0.5609
	Q2	0.766	18.419		
	Q3	0.760	18.225		
Cultural impact perception	Q4	0.744	18.425	0.8507	0.5330
	Q5	0.737	18.174		
	Q6	0.738	18.231		
	Q7	0.759	18.935		
	Q8	0.669	15.970		
Environmental impact perception	Q9	0.826	20.101	0.7935	0.5633
	Q10	0.743	17.613		
	Q11	0.675	15.612		
Social impact perception	Q12	0.779	18.907	0.7763	0.5385
	Q13	0.779	18.890		
	Q14	0.634	14.533		
Family relationship perception	Q15	0.867	22.808	0.8493	0.5889
	Q16	0.790	19.992		
	Q17	0.788	19.935		
	Q18	0.599	13.920		
Economic condition perception	Q19	0.876	21.374	0.8818	0.7887
	Q20	0.900	22.092		
Leisure and entertainment perception	Q21	0.740	18.129	0.8317	0.5544
	Q22	0.816	20.734		
	Q23	0.646	15.149		
	Q24	0.766	18.997		

*Table 4: Square root of the average extracted variance and the correlation coefficients*

Latent variable	1	2	3	4	5	6	7
1. Economic impact perception	0.7489						
2. Cultural impact perception	0.673	0.7301					
3. Environmental impact perception	0.427	0.579	0.7505				
4. Social impact perception	0.671	0.587	0.520	0.7338			
5. Family relationship perception	0.236	0.376	0.386	0.313	0.7674		
6. Economic condition perception	0.340	0.301	0.440	0.461	0.260	0.8881	
7. Leisure and entertainment perception	0.472	0.468	0.376	0.642	0.359	0.551	0.7446

Notes: The value on the diagonal is the square root of the average extracted variance, and the value below the diagonal is the correlation coefficient.

### Structural equation model analysis

Seven latent variables such as economic impact perception and their measurement items, using the total samples (S=900) and the maximum likelihood method, were adopted to estimate the model and to test the proposed research hypotheses. The results showed that:  $\chi^2 = 4.129$ , less than 5; GFI = 0.916, IFI = 0.927, TLI = 0.913, CFI = 0.927, all greater than 0.9; RMSEA = 0.059, less than 0.08. This showed that the fitting degree of the structure model and the sample data met the ideal requirement.

The rationality of the research hypotheses was tested according to whether the standardized path coefficient was significant at a certain level. From Table 5, it can be seen that cultural impact perception, environmental impact perception, and social impact perception all had a significant positive impact on family relationship perception, while economic impact perception did not. Therefore, H2a, H3a, and H4a were supported and H1a was rejected. Environmental impact perception and social impact perception had a significant positive impact on economic condition perception, while economic impact perception and cultural impact perception did not. Therefore, H3b and H4b were supported, but hypotheses H1b and H2b were rejected. Social impact perception had a significant positive impact on leisure and entertainment perception, while economic impact perception, cultural impact perception, and environmental impact perception did not. Therefore, H4c was supported while H1c, H2c, and H3c were rejected.

Table 5: Hypotheses test results

Path	Path coefficient	T value	Test result
H1a: Economic impact perception → Family relationship perception	-0.127	-1.945	Refuse
H1b: Economic impact perception → Economic condition perception	-0.058	-0.931	Refuse
H1c: Economic impact perception → Leisure and entertainment perception	0.061	1.000	Refuse
H2a: Cultural impact perception → Family relationship perception	0.183**	2.919	Support
H2b: Cultural impact perception → Economic condition perception	0.040	0.664	Refuse
H2c: Cultural impact perception → Leisure and entertainment perception	0.097	1.660	Refuse
H3a: Environmental impact perception → Family relationship perception	0.155***	3.320	Support
H3b: Environmental impact perception → Economic condition perception	0.187***	4.092	Support
H3c: Environmental impact perception → Leisure and entertainment perception	-0.008	-0.180	Refuse
H4a: Social impact perception → Family relationship perception	0.336***	5.551	Support
H4b: Social impact perception → Economic condition perception	0.436***	7.066	Support
H4c: Social impact perception → Leisure and entertainment perception	0.556***	8.774	Support

Notes: \*\*\* indicates  $p < 0.001$ , \*\* indicates  $p < 0.01$ .

### Regulatory effect analysis

In order to test the role of gender in regulating the relationship between tourism impact perception and quality of life perception, a multi-group analysis was used to test whether there were significant differences in the path coefficients of the structural models of men (N1=481) and women (N2=419). The analysis was conducted on a research model of seven latent variables such as economic impact perception. The analysis process was divided into three steps (Wang & Qu, 2014). Firstly, the model was estimated without any parameter constraints, and this model was used as the baseline model. Secondly, the path coefficient of the male and female structural model was limited to be equal, and this model was used as the constraint model. Again, the  $\chi^2$  value was compared with restriction model and the benchmark model to test H5a-5c, H6a-6c, H7a-7c, and H8a-8c. If the  $\chi^2$  value of the restricted model significantly increased compared with that of the benchmark model, that means the model of the two groups was different and unequal (Byrne, 1993; Wang & Qu, 2013). Analysis results showed that the model  $\chi^2$  was limited compared to the benchmark model  $\chi^2$  with statistically significant increase in value ( $\Delta\chi^2 = 28.678$ ,  $\Delta df = 12$ ,  $P = 0.004$ ). It showed that there were differences between male and female structural models. Therefore, it was possible to further analyze whether there were significant differences in the specific path of structural models between the two groups of community residents.



When analyzing the regulatory role of gender, only one regression path was limited at a time, and then the ‘partially restricted’ model was compared with the baseline model  $\chi^2$  value. If the  $\chi^2$  value of the ‘partially restricted’ model was significantly increased compared with that of the benchmark model  $\chi^2$ , it would indicate that there was a significant difference between the two groups in the restricted regression path (Kim, 2010). It could be seen from Table 6 that compared with the benchmark model, the restriction paths of ‘Cultural impact perception → Family relationship perception’, ‘Cultural impact perception → Leisure and entertainment perception’, ‘Environmental impact perception → Family relationship perception’, and ‘Social impact perception → Family relationship perception’ partially restricted the model  $\chi^2$  with statistically significant increase in values, indicating that gender had a significant regulatory effect on the relationship between these latent variables.

*Table 6: Gender regulation test results*

Model	$\Delta\chi^2$	$\Delta df$
<b>Benchmark model</b>		
1 Limit the path ‘Economic impact perception → Family relationship perception’	0.248	1
2 Limit the path ‘Economic impact perception → Economic condition perception’	0.011	1
3 Limit the path ‘Economic impact perception → Leisure and entertainment perception’	1.883	1
4 Limit the path ‘Cultural impact perception → Family relationship perception’	11.094***	1
5 Limit the path ‘Culture impact perception → Economic condition perception’	2.071	1
6 Limit the path ‘Cultural impact perception → Leisure and entertainment perception’	4.009*	1
7 Restricted path ‘Environmental impact perception → Family relationship perception’	8.419**	1
8 Limit the path ‘Environmental impact perception → Economic condition perception’	1.598	1
9 Limit the path ‘Environmental impact perception → Leisure and entertainment perception’	1.918	1
10 Restricted path ‘Societal impact perception → Family relationship perception’	4.373*	1
11 Restricted path ‘Societal impact perception → Economic condition perception’	0.134	1
12 Limit the path ‘Societal impact perception → Leisure and entertainment perception’	0.495	1

Notes: \*\*\*indicates  $p < 0.001$ , \*\* indicates  $p < 0.01$ , \* indicates  $p < 0.05$ .

Specifically, there was no significant difference between men and women in terms of economic impact perception and family relationship perception, leisure and entertainment perception, and economic condition perception, so the hypotheses of H5a-5c were rejected. Therefore, hypothesis H5 was not supported. There were significant differences between men and women in the relationship between cultural impact perception and family relationship perception and leisure and entertainment perception, which supported the hypotheses H6a and H6c. There was no significant difference between the cultural impact perception and the economic condition perception, and the hypothesis H6b was rejected. Therefore, it is supposed that H6 received partial support. There were significant differences between men and women in the relationship between environmental impact perception and family relationship perception, which supported hypothesis H7a. There was no significant difference between the environmental impact perception and economic condition perception and leisure and entertainment perception, which rejected the hypotheses of H7b-7c. Therefore, it is supposed that H7 got partial support. There were significant differences between men and women in the relationship between social impact perception and family relationship perception, which supported the hypothesis H8a. There was no significant difference between social impact perception and the perception of economic conditions and leisure and entertainment perception, so the hypotheses of H8b-8c were rejected. Therefore it is supposed that H8 received partial support. Table 7 shows that among those relationships with significant differences, women’s perception was stronger than men’s in the relationship between cultural impact perception and family relationship perception, leisure and entertainment perception; whereas in the relationship between environmental impact perception, social impact perception and family relationship perception, men’s perception was stronger than women’s.

Table 7: Comparison of gender regulation

Path	Male		Female	
	Path coefficient	T value	Path coefficient	T value
H5a: Economic impact perception → Family relationship perception	-0.099	-0.957	-0.032	-0.389
H5b: Economic impact perception → Economic condition perception	-0.005	-0.046	-0.018	-0.220
H5c: Economic impact perception → Leisure and entertainment perception	0.205	2.033*	0.024	0.311
H6a: Cultural impact perception → Family relationship perception	-0.095	-0.906	0.360***	4.477
H6b: Cultural impact perception → Economic condition perception	-0.108	-1.022	0.087	1.175
H6c: Cultural impact perception → Leisure and entertainment perception	-0.085	-0.825	0.180*	2.501
H7a: Environmental impact perception → Family relationship perception	0.310	4.150***	0.049	0.814
H7b: Environmental impact perception → Economic condition perception	0.283***	3.775	0.149*	2.527
H7c: Environmental impact perception → Leisure and entertainment perception	0.086	1.236	-0.043	-0.755
H8a: Social impact perception → Family relationship perception	0.428***	4.885	0.198*	2.374
H8b: Social impact perception → Economic condition perception	0.417***	4.713	0.418***	4.980
H8c: Social impact perception → Leisure and entertainment perception	0.457***	5.241	0.607***	6.789

Notes: \*\*\*indicates p<0.001, \*\* indicates p<0.01, \* indicates p<0.05.

Hypotheses test results are shown in Figure 2.

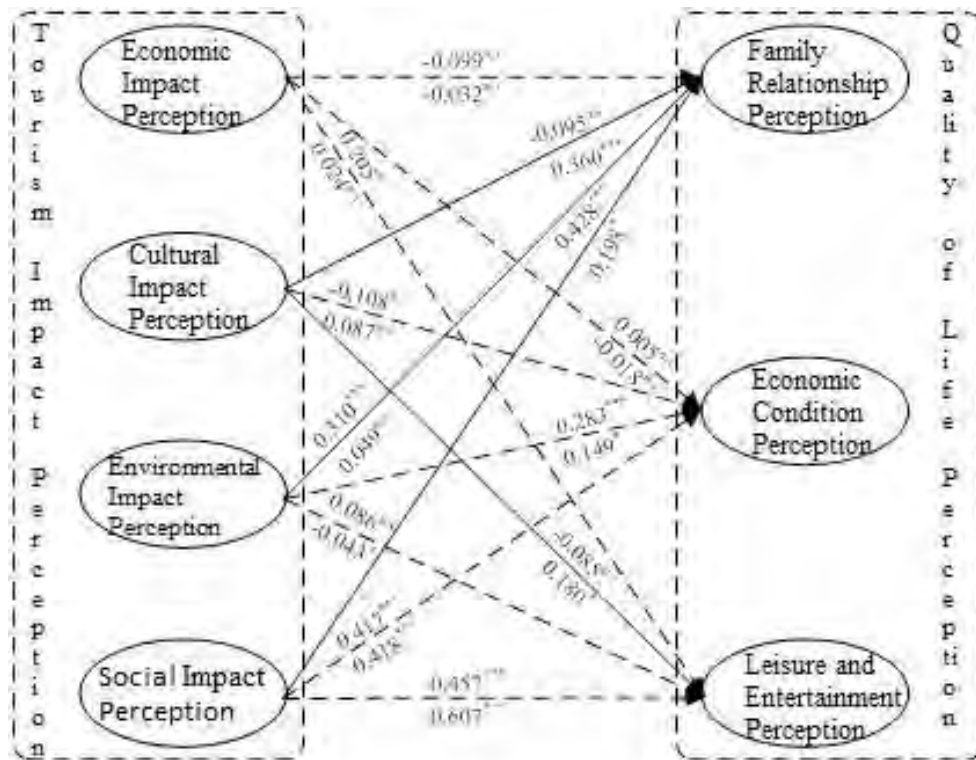


Figure 2: Hypothesis test results

Notes: The solid line indicates a significant difference between the groups, and the dashed line indicates no significant difference between the groups; the male group data is at the top of the arrow, and the female group data is at the bottom of the arrow. \*\*\* indicates p<0.001; \*\* indicates p<0.01; \* indicates p<0.05; NS indicates p(0.05).

## DISCUSSION AND CONCLUSION

Taking some tourist destinations in the representative provinces of eastern, central and western China as examples, the paper empirically studied the relationship between community residents' perception of tourism impact and life quality perception, and obtains the following three conclusions:

Firstly, cultural impact perception, environmental impact perception, and social impact perception positively affect family relationship perception. Environmental impact perception and social impact perception positively affect economic condition perception, and social impact perception positively affect recreation and entertainment perception. This study confirms the view of Chancellor, Yu and Cole (2011) that the perception of tourism impact is related to the perception of the quality of life, and that the positive impact of tourism helps to improve the quality of life of community residents. The development of tourism can be a viable way to improve the quality of life (Andereck & Nyaupane, 2011). The conclusion of this study differs from Kim's (2003) view: economic impact perception, cultural impact perception, environmental impact perception, and social impact perception have no significant effect on the perception of life quality. The reason for the difference might be that Kim (2003) built the perception of quality of life as a whole, ignoring its multidimensionality, and did not delve into the relationship between the dimensions of the two latent variables. Compared with this conclusion, the degree of refinement of this study's conclusion is even higher. This study responds to Kim et al.'s (2013) proposal to examine the dynamic relationship between tourism impact perception dimensions and life quality perception dimensions, confirming that the specific dimensions of tourism influence perception not only affect the quality of some aspects of life, but also have spillover effects on other aspects of quality of life perception. From this perspective, the conclusions of this study are complementary to existing relevant research.

Based on the findings of this study, in order to improve the perception of the residents' quality of life at tourist destinations, it is suggested that local governments and tourism companies should dynamically monitor the positive and negative influences of tourism development from the perspective of community residents in the process of developing tourism. The positive influences of culture, environment and society will promote the improvement of people-land relations and the physical environment at tourist destinations as well as help community residents benefit from tourism development, strengthen the sum and publicity of tourism development achievements, and increase community residents' awareness of the positive impacts of the tourism industry. In addition, since social impact perception has a strong positive impact on family relationship perception, economic condition perception, and leisure and entertainment perception, it is necessary to take into account the community residents' needs for social life in facilities construction and service management, so that they can share tourism development and receive benefits.

Secondly, economic impact perception has no significant impact on family relationship perception, economic condition perception, and leisure and entertainment perception, probably due to the fact that the opportunities for community residents to participate in tourism were still relatively small, and the benefits of tourism development in terms of income increase and employment promotion were still small. As a result, community residents could not clearly perceive the economic impact of tourism on the improvement of their quality of life. Therefore, tourism companies can lean towards community residents appropriately under the same conditions when recruiting employees. The local government can help the community residents to engage in tourism-related industries and benefit from the policies and technologies, etc. The perception of cultural impacts has no significant effect on economic condition perception as well as leisure and entertainment perception, neither did the environmental impact perception have significant effect on leisure and entertainment perception. The reason might be that specific dimensions of tourism impact perception would mainly affect certain aspects of the quality of life perception, for example, the emotional impact of cultural impact perception mainly affects the perception of life quality (Kim et al., 2013). However, the spillover effect on other aspects is limited. Therefore, local governments and tourism companies that want to effectively improve the perception of the quality of life of community residents should first be clear that the dimensions of perception of tourism impact are the dimensions that mainly affects the perception of the quality of life. Then, they should adopt a targeted strategy. For example, this study shows that environmental impact perception mainly affects the perception of family relationship. Therefore, the following measures can be taken: improve the local living environment, create

comfortable outdoor space for community residents, set up facilities and venues suitable for parent-child activities, recreation and fitness, etc. These provide the environmental conditions for exchanges and activities among family members.

Thirdly, the relationships between gender and cultural perception and family relationship perception, cultural impact perception and leisure entertainment perception, environmental impact perception and family relationship perception, and social impact perception and family relationship perception play a regulatory role. That is, there is a significant gender difference in the relationship between these tourism impact perception dimensions and the quality of life perception dimensions. In terms of the relationship between cultural impact perception and family relationship perception and leisure and entertainment perception, women's perception is stronger than that of men, supporting Wang and Harrill's (2009) study. In terms of environmental impact perception, men's perception is stronger than women's perception of the relationship between environmental impact perception, social impact perception and family relationship perception, supporting Khizindar's (2012) study. According to the conclusion of the study, local governments and tourism enterprises must effectively improve the perception of the quality of life of the community residents and should implement differentiated strategies for men and women. Therefore, improving the perception of the quality of life of men in terms of family relations should focus on enhancing their perceptions of environmental impact and social impact perceptions; and for women, they should focus on enhancing their perception of cultural influence.

#### *Limitations and prospects*

This study has some limitations, manifested mainly in the following three aspects: First, the community residents' quality of life perception scale needs improvement. Although the scale was developed in the context of China, community security and other dimensions did not appear in the exploratory factor analysis results of this paper, so it may still be inadequate. In the future, the design of the questionnaire should be further improved to improve the internal validity of the study. Second, the sample of students accounts for a larger proportion of the total sample. In the future, it should maintain a balanced distribution of sample size in different occupations and improve the external validity of research findings. Third, it did not divide each perceived dimension of tourism impact into positive and negative aspects. In the future, it can further examine the relationship between these subdivided dimensions and the quality of life perception dimensions.

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# Assessing the Extent of Sustainable Tourism Development in Nam Du Archipelago, Kien Giang Province, Vietnam

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## ABSTRACT

The aim of this research is to analyze the level of sustainable tourism development in the Nam Du archipelago, Vietnam, from the perspective of the local people and tourists by the methods of descriptive statistics and explorer factor analysis. Questionnaires were conducted with a total of 128 local residents and 116 visitors. From the perspective of the local people, the research reveals that there are ten factors affecting sustainable tourism development in Nam Du archipelago, namely: (1) social security and traffic accidents, (2) economic development, (3) garbage status, (4) management of local government, (5) development planning and distribution of tourism benefits, (6) cultural value, (7) return of tourist and travel time, (8) satisfaction, (9) price of goods and services, and (10) warning and rescue system. However, visitors only identified seven factors affecting sustainable tourism development in Nam Du archipelago, including (1) garbage status, (2) management of local government, (3) economic development and social security and order, (4) satisfaction, (5) cultural value, (6) price of goods and services, and (7) rescue and recreation system. The paper also makes a comparison of the similarities and differences between the opinions of the two groups. The results of this study will benefit the management of local authorities, tourist agencies, local business owners and residents. Besides, this paper proposes some solutions for sustainable tourism development in Nam Du for the future.

**Keywords:** *Factors; Nam Du archipelago; sustainable tourism*

## INTRODUCTION

It is well-documented that tourism is one of the world's largest sectors, which brings many advantages to not only economic but also societal development, especially to the local communities. Tourism plays an important role as a significant activity in most societies and is considered as a crucial vehicle for economic growth. However, rapid tourism development has also been considered as a drawback to traditional culture and the environment of indigenous people (Landford, 1994; Mohammed, 2007). This is a matter of great concern for local governments, authorities, and people all over the world, which motivates and urges travelers to find a new direction for themselves to develop tourism in a sustainable way.

The term 'sustainable development' was first used in 1980 in the World Conservation Strategy drafted by the International Union for Conservation of Nature and Natural Resource. However, Rohe (1997) and Butler (1998) suggested that the approach at that time was not suitable for the current conditions because the idea stemmed from the period of industrialization. The World Commission on Environment and Development (1987, p.43) has created a definition which considered sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. This definition was agreed by many social parties and started to be applied in practice (MacLellan, 1997). Sustainable development has since become the global agenda in many forms of development in its broadest understanding (Sofield, 2003).

Various perspectives of sustainable tourism development are indicated in previous studies. The argument that tourism development influences local communities directly and indirectly is supported by many. Hall (1998) has indicated that the main purposes of sustainability are to protect livelihoods, culture, society and the environment. To achieve these purposes, sustainable development calls for the involvement of many factors, including stakeholders and strategic planning in the process of development (Simpson, 2001).

According to Machado's (2003) *Tourism and sustainable tourism development*, sustainable tourism is affected by 24 factors: 1) the speed of development; 2) level of control; 3) scale; 4) objectives; 5) approach; 6) method; 7) subjects participating in the control; 8) strategy; 9) plan; 10) level of interest; 11) pressure and benefits; 12) management; 13) human resources; 14) architectural planning; 15) marketing; 16) use of resources; 17) regeneration of resources; 18) goods; 19) human resources; 20) visitors; 21) learn the language; 22) sex tourism; 23) visitor attitudes; and 24) visitor loyalty.

The study *Sustainable tourism development: The case of the island of Hvar* conducted by Bučar and Renko (2008) has shown that tourism has environmental impacts that affect the local people on a Croatian island. People change their traditional way of life. The study also pointed out that unorganized and spontaneous tourism development will lead to many corollaries such as a part of the island in the west being developed and the east being forgotten.

Nam Du archipelago is an archipelago located at the southeast of Phu Quoc Island in the Gulf of Thailand, 65 nautical miles away from Rach Gia. The Nam Du archipelago covers an area of 1,054 hectares and is under the management of two communes, An Son and Nam Du, in Kien Hai district, Kien Giang province, Vietnam. The archipelago consists of about 21 large and small islands and two parallel islands in the north-south direction. The inhabitants mainly live on fishing and aquaculture. In recent years, tourism has also contributed to the development of the local economy and improved the income for the local people. The majority of the population lives on the islands of Hon Tron, Hon Ngang and Hon Mau; the rest of the islands such as Hon Dau and Hai Bo Dap are largely uninhabited or with few inhabitants. The Nam Du archipelago is considered as a jewel of Kien Giang as it is an attractive tourist destination, which has high potentials for tourism development because of its diverse natural resources such as beautiful beaches, fresh white sand beaches and diverse fresh seafood. However, based on the empirical observation of the authors, the environmental problem of domestic waste has not been handled well in the archipelago. In addition, the archipelago lacks human resources for tourism development, and facility investment by the tourism industry is limited. Nam Du's tourism products are generally monotonous, rendering the archipelago difficult to compete with other tourist destinations in the province, such as Phu Quoc and Ha Tien. Therefore, it is necessary to conduct a research to assess the level of sustainable tourism development in Nam Du archipelago to provide empirical evidences for the local authorities, state authorities of tourism and travel agencies to improve the quality of the factors affecting tourism development in Phong Dien district as well as to manage the environment and protect local culture.

The study aims to identify the factors affecting sustainable tourism development in Nam Du archipelago based on quantitative methods, examining two dimensions – local people and visitors, and proposes some recommendations for sustainable tourism development in Nam Du archipelago.

## **METHODOLOGY**

The research is based on a survey which utilized questionnaires, in-depth interviews and observation to gather data. The sample groups of the questionnaires were local households living in Nam Du village as well as tourists. The survey was conducted in June to August, 2017. The next step was a random selection of samples. A total of 128 samples of local residents were randomly identified by computer program based on the alphabetic list of all available households in the community; 116 tourists were also surveyed. However, there were only 123 qualified questionnaires completed by the residents. A five-point Likert scale was used in the questionnaire which the author adopted and compiled from previous studies of the literature (Strongly disagree = 1; Disagree = 2; Not sure = 3; Agree = 4; Strongly agree = 5). This research used non-probability sampling method, namely convenience sampling. The research used SPSS version 20 to analyze the data collected with Frequency, Percentage, Mean, Standard Deviation, Bivariate Correlate Analysis, Scale Reliability Analysis and Exploratory Factor Analysis.

## RESULTS

The results of the evaluation by 123 residents on the sustainable tourism development of Nam Du archipelago are divided into six groups. The authors have conducted scale reliability analysis to compute the Cronbach's alpha reliability. The results show that there are six groups, namely economy, society, culture, environment, institution and satisfaction, which have total variable correlations  $> 0.3$ . Thus, after the process of testing the reliability of the scale, 13 variables were removed, and only 31 of the remaining variables were retained for factor analysis in the next step.

*Table 1: Scale reliability evaluation*

No.	Factor	Cronbach's alpha	Item – total correlation	N of items
1	Economic indicator	0,677	0,321-0,455	8
2	Social indicator	0,719	0,301-0,591	8
3	Cultural indicator	0,613	0,324-0,570	4
4	Environmental indicator	0,777	0,544-0,663	3
5	Institutional indicator	0,720	0,461-0,542	4
6	Satisfaction indicator	0,683	0,354-0,586	4

The results of the final analysis have been tested to ensure the credibility of the 31 remaining variables  $> 0.5$  and  $0.5 < KMO = 0.613 < 1$ ,  $Sig = 0.000$ . After the discovery factor analysis, the rotated component matrix is presented in Table 2. The 31 variables are divided into ten new factors that affect the sustainable tourism development in Nam Du archipelago, namely: (1) social security and traffic accidents, (2) economic development, (3) garbage status, (4) management of local government, (5) development planning and distribution of tourism benefits, (6) cultural value, (7) return of tourist and travel time, (8) satisfaction, (9) price of goods and services, and (10) warning and rescue system.

*Table 2: Rotated component matrix*

Observed variable	Factor									
	1	2	3	4	5	6	7	8	9	10
X12	0,767									
X11	0,741									
X13	0,660									
X19	0,564									
X1		0,793								
X2		0,779								
X4		0,657								
X3		0,632								
X27			0,868							
X26			0,850							
X28			0,733							
X38				0,745						
X37				0,716						
X39				0,709						
X40				0,558						
X8					0,908					
X7					0,832					
X23						0,839				
X18						0,622				
X22						0,573				
X21						0,545				
X33							0,832			
X34							0,823			
X42								0,888		
X41								0,835		
X5									0,760	
X6									0,651	
X16										0,758



**Factor 1 (F1):** The factor ‘social security and traffic accidents’ comprises four items which are related to social crimes and traffic, consisting of the following statements:

- Since the emergence of tourist activities, the situation of insecurity has increased (X12)
- Social crimes have increased since tourism development (X11)
- Since the emergence of tourist activities, there has been more traffic jams (X13)
- There are many diseases related to tourism (X19)

These variables were rated lowly (2.32, 2.41, 2.54 and 2.20 respectively), which proves that tourism development in Nam Du has not caused many negative impacts on social security or traffic safety in this area. As per the authors’ observation, currently, social security and traffic safety are generally well maintained. Although the number of tourists has increased rapidly, especially during holidays and weekends, the occurrence of seizure, hacking, begging and pickpocketing are very rarely. In the future, this situation needs to be maintained and further promoted. Based on the following equation, it is observed that the items of X12 and X13 are the most important items influencing F1.

*Factor equation:*  $F_1 = 0.323 X_{12} + 0.309 X_{11} + 0.320 X_{13} + 0.209 X_{19}$

**Factor 2 (F2):** The factor ‘economic development’ consists of four elements:

- Many local people improve their income through tourism (X1)
- Many local people have jobs from tourism (X2)
- Poverty has been reduced in a part of the people by tourism (X4)
- The local economy is improved by tourism (X3)

Revenue from tourism services in the community has increased from 240.5 billion in 2015 to 375 billion in 2016, denoting an increase of about 135 billion in a year. The income of some people has been improved significantly. For variables X1, X2, X4 and X3, the mean scores were high (3.84, 3.87, 3.67 and 3.81 respectively), proving that tourism is positively influencing economic growth in Nam Du archipelago. According to the following equation, X1, X2 strongly affects F2.

*Factor equation:*  $F_2 = 0.365 X_1 + 0.352 X_2 + 0.292 X_4 + 0.277 X_3$

**Factor 3 (F3):** The factor ‘garbage status’ is affected by three variables:

- People’s waste is thrown into the sea (X27)
- Waste is not collected or recycled (X26)
- A lot of garbage is generated by visitors (X28)

Waste problem is one of the most significant issues in Nam Du. The islands are quite far from the mainland, and there is no waste treatment system on the islands. As wastes must be collected and transferred from the islands to the mainland, it is costly and time consuming. In addition, the islands are crowded with visitors, leading to an increase in the amount of waste. The problem of waste disposal becomes more urgent than ever. Some people and tourists dispose of wastes by throwing them into the sea, which causes aesthetic problems and produces a polluted environment. Many beaches in Nam Du have rubbish floating. Landfills form by the beaches, harming the beauty of Nam Du. The variables X27, X26 and X28 were rated highly (3.91, 3.90 and 3.54 respectively). In particular, the variables X27 and X26 are the strongest due to their greatest factor scores.

*Factor equation:*  $F_3 = 0.411 X_{27} + 0.393 X_{26} + 0.332 X_{28}$

**Factor 4 (F4):** The factor ‘management of local government’ consists of four variables:

- Local authorities have checked the fire situation in the business holdings (X38)
- The authorities have investigated the quality of the environment (X37)
- The government inspects rescue situation and safety buoys for tourists (X39)
- The government encourages people to develop sustainable tourism (X40)

Local authorities have certain interests in the development of local tourism. Since 2015, the People’s Committee of An Son Commune started to pay attention to the number of visitors in Nam Du and organize professional training courses for the local people who participate in tourism. Recently, it cooperates with the Lam Dong Technical and Economic College to organize a tour guide class for the local people. In general, the variables X38, X37, X39 and X40 were highly valued (3.54, 3.44, 3.76 and 3.67 respectively), indicating the interest of local authorities in the development of local tourism. In particular, the items X38 and X37 have the strongest impact due to their largest factor scores.

*Factor equation:*  $F_4 = 0.391 X_{38} + 0.372 X_{37} + 0.355 X_{39} + 0.262 X_{40}$

**Factor 5 (F5).** The factor ‘development planning and distribution of tourism benefits’ is determined by two variables:

- The benefits of tourism are distributed unfairly among people (X8)
- Part of the island is invested to develop tourism; the rest is forgotten (X7)

Tourism has a good impact on the local economy, but the distribution of tourism interests in the local communities is still unfair. In addition, Nam Du consists of 21 small islands, but tourism development is concentrated on Cu Tron, whereas other area seems wild and less inhabited. According to the equation, the first variable has a bigger impact than the second variable.

*Factor equation:*  $F_5 = 0.453 X_8 + 0.380 X_7$

**Factor 6 (F6):** The factor ‘cultural value’ is influenced by four variables:

- The historical and cultural relics of the locality are changed from the original (X23)
- Children drop out of school early to participate in tourism activities (X18)
- Local people change the traditional culture to adapt to tourist’s culture (X22)
- Since the emergence of tourist activities, the cultural and historical sites are restored and embellished (X21)

At present, there are three major festivals in Nam Du: Ba Chua Xu festival, Ong fish worshipping festival and Ong Bon worshipping festival, but tourism has not exerted much impact on the culture of indigenous beliefs. The development of tourism has only been strong in the past few years, so it has hardly impacted on the local culture. The local people still retain their traditional cultural values. The variables of X22 and X21 received average ratings (3.0 and 3.23 respectively). In the case of children dropping out of school to participate in tourism activities, the X23 and X18 variables were rated at a low level (2.76 and 2.5 respectively). In particular, variables X23 and X22 are the strongest due to the greatest factor score.

*Factor equation:*  $F_6 = 0.465 X_{23} + 0.290 X_{18} + 0.300 X_{22} + 0.290 X_{21}$

**Factor 7 (F7):** The factor ‘return of tourist and travel time’ consists of two variables:

- The number of tourists returning to Nam Du is increasing (X33)
- Time spent on traveling activities tend to be much longer (X34)

Currently, Nam Du is still a new tourist destination and attraction. The variables X33 and X34 were highly rated (3.73 and 3.72 respectively). The X34 variable has the strongest impact.

*Factor equation:*  $F_7 = 0.468 X_{43} + 0.469 X_{44}$

**Factor 8 (F8):** The factor ‘satisfaction’ includes two variables:

- People are happy with the tourism activities here (X42)
- Tourists are polite to the local people (X41)

Visitors are satisfied with the friendly local residents and the beautiful natural landscape.

*Factor equation:*  $F_8 = 0.557 X_{42} + 0.484 X_{41}$

**Factor 9 (F9):** The factor ‘price of goods and services’ is influenced by two variables:

- Land prices and services have increased rapidly since tourism development (X5)
- The price of consumer goods in the local area has increased since tourist development (X6)

Tourism development often involves land prices, service prices and prices of consumer goods, which are higher than other places. In the center of Nam Du, as there are many visitors, the land price increases quite rapidly, in addition to commodity prices, due to increased tourist demand. Variables X5 and X6 with high mean values (3.74 and 3.68 respectively) partly prove the impact of tourism on local prices. In particular, the X5 variable is the most powerful.

*Factor equation:*  $F_9 = 0.518 X_5 + 0.410 X_6$

**Factor 10 (F10):** The factor ‘warning and rescue system’ is affected by one variable:

- There is a lack of warning and rescue systems (X16)

The X16 variable received an average rating (3.33).

*Factor equation:*  $F_{10} = 0.630 X_{16}$

On the other hand, the results of the evaluation of sustainable tourism development in Nam Du archipelago by tourists reveal that there are seven factors directly affecting the sustainability of the tourism development in Nam Du, namely: (1) garbage status, (2) management of local government, (3) economic development and social security and order, (4) satisfaction, (5) cultural value, (6) price of goods and services, and (7) rescue and recreation system. Each factor has negative and positive impacts on the sustainable tourism development in Nam Du.

## DISCUSSION

From two perspectives of the local people and visitors evaluating the influencing factors of the sustainable tourism development in Nam Du archipelago, it can be seen that there are similarities between the two assessments. The research is reliable and reflects the actual situation. From the perspective of the local people, the study shows that there are ten factors that affect the sustainable tourism development in Nam Du Archipelago: social security and traffic accidents, economic development, garbage status, management of local government, development planning and distribution of tourism benefits, cultural value, return of tourists and travel time, satisfaction, price of goods and services, warning and rescue system. Visitors also identified seven factors including garbage status, management of local government, local economic development and state of security and order, satisfaction, cultural value, price of goods and services, and rescue and recreation scene. Both groups of respondents considered that the factors influencing sustainable tourism development in Nam Du are garbage status, local government management, satisfaction, cultural values, price of goods and services, and economic development and security and order.

In terms of waste, both local residents and visitors agreed that people's wastes are thrown into the sea and visitors produce a lot of wastes. Visitors reflected that the water is sometimes dirty and rubbish floats at the beaches. Some of the residents are not aware of environmental protection. There are a lot of wastes from the residential areas, and tourists have to pay for the use of fresh water at the beaches. It is observed that environmental pollution due to garbage dumping is a matter that needs to be considered and treated in Nam Du as this will affect the sustainable development of tourism on the islands.

According to the assessment of economic development, both local people and tourists strongly agreed that tourism has generated income and jobs for the local people. The villagers also agreed that some residents have reduced poverty through tourism and local economic development is also improved by tourism.

In terms of the local culture, both local people and tourists indicated that tourism has not impacted upon the local culture as the local people still retain their traditional cultural values. The survey conducted among local residents and visitors demonstrates that the following observed variables received neutral opinions from the respondents: local people change the traditional culture by adapting to the culture of tourists; commercialization of traditional local activities occur as a result of tourism development.

With regards to the satisfaction factor, in general, both the local people and tourists are satisfied with the tourism activities in Nam Du. The locals suggested that tourists are sympathetic to the local people and the number of visitors returning to Nam Du increases yearly. Tourists commented that the local people actively help tourists to participate in tourism activities, and they think Nam Du tourism will develop sustainably in the future. Local residents considered that the duration of tourism is likely to be extended, but visitors were more neutral towards the statement 'being able to travel here in all seasons'.

As for the price of goods and services, the local people strongly agreed that the price of land and services has increased rapidly since the establishment of tourism activities. The price of consumer goods in the local area has increased too. Visitors agreed on the statement 'higher goods prices on Nam Du Islands than elsewhere', and showed neutrality in terms of 'higher service prices than elsewhere'. Due to the limited production of goods on the islands and the long distance from the mainland, transportation of goods is difficult, which makes the product costs higher than elsewhere. However, the costs for sightseeing, dining and accommodation are reasonable for the tourists.

Security and social crimes are maintained at a safe level for tourists. Residents said that social security and traffic safety in general are still quite good. Although tourism develops in Nam Du, no negative impact is seen here. This situation should be maintained in the future.

Regarding the management of local authorities, the local people believed that the government has paid attention to tourism development in Nam Du, inspection of fire at business holdings and the

examination of rescue status of waterway transportation. The government encourages the local people to develop sustainable tourism development. Tourists also agreed that the boats are equipped with life jackets as a rescue means for visitors. However, the visitor review shows that the government should provide more tourist information guides and posters to encourage visitors and the local people to protect the environment and natural resources. Service price lists should be posted at tourist sites, and rescue procedures or emergency signage should be installed at tourist sites.

There are also differences in the perspectives of the local people and tourists. The local people think that guesthouses and hotels built in modern architectural style damage the natural landscape. Visitors hold an opposite opinion as they have a more neutral perspective. Perhaps because the local people have been living on this land for a long time, they are familiar with the natural landscape. When developing tourism, they realize that many landscapes have been changed. As for tourists, they have only traveled one or two times per year, thus it is difficult for them to recognize the change of scenery. Also, as tourists prefer the convenience during traveling, it is necessary to build hotels to develop tourism.

## **CONCLUSION AND RECOMMENDATIONS**

In sum, Nam Du tourism has a lot of potentials that need to be invested in and developed. To achieve this, it is necessary to combine measures from local authorities, travel agencies and the local communities. Particular attention should be paid to ensure that sustainable development is not only for tourism but also for the socio-economic development and local security of Nam Du. The relationship between tourism development and environmental protection should also be sustainable. If all necessary strategies are carried out, Nam Du will become a tourist attraction and bring great socio-economic development to the locality.

A number of measures and recommendations for the sustainable tourism development in Nam Du archipelago are proposed:

- It is necessary to raise the awareness of the local people and tourists in protecting the environment around the islands. Construction of garbage disposal and recycling facilities and the addition of garbage cans on the islands create the prerequisites for the locals and visitors to dispose of garbage properly. Measures should be taken to eliminate the direct discharge of wastewater into the sea by the business holdings. There should also be a policy to classify garbage and develop appropriate treatment procedures.
- Authorities should call for investments to build and improve infrastructure on the islands and develop new tourism experiences, such as cycling and fishing. The islands need to have large hospitals in order to be able to provide medical treatment and control tourism-related diseases. Transportation systems need to be upgraded and expanded so that visitors can move around easily, and it is necessary to establish parking lots in the area of An Son to avoid traffic congestion. The authorities should set up patrol teams at places where there are many tourists, such as Ngu Beach, Bai Soi, Hon Mau, Hon Lon and Hon Ngang, to ensure security and avoid the occurrence of social crimes.
- The state authorities should regularly inspect safety, food hygiene and waste disposal situations. It is important to provide enough life jackets on the boats when tourists travel by waterway. Beaches should have signs to warn tourists of danger and ensure the safety of life and property. Another suggestion is that boat stations should be clean and spacious. The tourism authorities need to conduct training courses on hygiene and food safety.
- The prices of goods on the islands should be adjusted properly and clear price lists should be visible to tourists.
- Local governments should have policies to create capital for tourism businesses and to create jobs and increase revenue for the local economy. They should encourage the non-participating population to participate in tourism business activities to achieve a uniform distribution of benefits in the local community.
- It is necessary to establish local guiding teams who have cultural knowledge of the islands as well as professional skills to understand the needs of the tourists and make visitors satisfy with their

travel experience. In addition, the staff at hotels, restaurants and on transportations should be polite, friendly and hospitable when they interact with tourists.

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# **A Study on the Relationship Between Tourism Impact Perception and Residents' Support for Tourism Development: A Regulatory Role of Trust in Tourism Development Company**

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## **ABSTRACT**

Based on a questionnaire survey of 399 residents in Wuzhen, and on the basis of the social exchange theory, taking negative tourism impact perception as an intermediary and trust in tourism development company as adjustment, this paper discusses the influence mechanism of positive tourism impact perception on residents' support for tourism development. The results show that positive tourism perception can significantly weaken the perception of negative tourism impact. Negative tourism impact perception plays a partial intermediary role in the relationship between positive tourism impact perception and residents' support for tourism development. Trust in tourism development company regulates the negative impact of perceived negative tourism impact on residents' support for tourism development.

**Keywords:** *Social exchange theory; support tourism development; tourism impact perception; trust in tourism development company*

## **INTRODUCTION**

In the contemporary China with economic construction as the central focus, many local governments have developed tourism as a tool to drive economic development. However, at the same time, the development of tourism brings negative effects on the increase of the cost of living as well as the positive effect of increasing employment opportunities. Because of these negative effects, it is particularly important for residents to support the development of tourism for the sustainable development of local tourism. There are three reasons: First, the scene of production and life of residents are an important part of the attraction of local tourism. Without the support of local residents for tourism development, the charm of these attractions will be reduced (Nunkoo & Ramkissoon, 2012). Second, residents' support for tourism development is related to the tourists' experience quality under the interaction of host and guest. Residents not supporting tourism development would easily lead to conflicts between residents and tourists, and the willingness of tourists to revisit will be reduced (Kim, Woo, & Uysal, 2015). Third, the benefit of tourism development is the basis for residents to support tourism development. If residents bear the negative effects of tourism development but cannot share the benefits brought by tourism development, it would not only be uncondusive to improving the quality of life of residents but also contrary to the idea of building a harmonious socialist society. Therefore, how to get residents' support for the development of tourism has been the focus of attention in the academic circle.

According to the social exchange theory, the perception of tourism impact is the basis for the formation of residents' attitude towards tourism development. Therefore, it is an important factor affecting residents' support for tourism development. According to whether tourism development is beneficial to the people, the perception of tourism impact can be divided into positive tourism impact perception and negative tourism impact perception. However, in previous studies, scholars (e.g. Choi & Murray, 2010; Lu, 2012) regarded positive and negative perceptions of tourism impact as two parallel constructions, and discussed the positive and negative perceptions of tourism impact. This study examines the relationship between the two.

Generally speaking, positive tourism perception plays a positive role in promoting the development of residents' support for tourism. Negative tourism impact perception has a negative effect on the development of residents' support for tourism (Wang & Qu, 2014). A negative correlation between the negative perception of tourism impact and residents' support for tourism development has been widely confirmed (Chen & Chen, 2010; Wang & Chen, 2015), but the positive effects of tourism perception of residents on their support for tourism development has not yet been fully discussed. Positive tourism impact perception not only positively affects residents' support for tourism development but also indirectly influences residents' support for tourism development through negative tourism impact. This study will explore the mediating role of negative tourism impact perception between positive tourism impact perception and residents' support for tourism development.

The basis of social exchange includes trust between two parties in the exchange process (Xin & Pearce, 1996). Residents' trust in tourism management has an important impact on residents' negative tourism impact perception and residents' support for tourism development (Gursoy, Yolal, Ribeiro, & Netto, 2017; Wang & Lu, 2014). Tourism development company is an important tourism manager. Residents' trust in tourism development company may affect the relationship between negative tourism perception and residents' support for tourism development. Trust is a part of individual traits. Although the variable is often used to denote the relationship between cognitive and behavioral intention (Ma, 2011), no research indicates that the negative perception of tourism impact (a cognitive component) and residents' support for tourism development (belonging to the intent of the relationship) are affected by the trust in tourism development company.

In summary, this study, based on the social exchange theory, taking the negative perception of tourism impact as the intermediary variable, trust in tourism development corporation as a moderator, constructs and adjusts a mediating effect model in order to reveal the effect of positive perception of tourism impact on residents' support mechanism for tourism development, and to provide reference and guidance to the improvement of tourism management for the promotion of sustainable development of the tourism industry.

## LITERATURE REVIEW AND RESEARCH HYPOTHESES

### *Perception of positive tourism impact and perception of negative tourism impact*

The development of tourism is like a double-edged sword. It has positive impacts on the tourism area (such as increasing the chances of local residents' employment), and at the same time, it also has negative impacts on the tourism area (for example, increasing conflicts between local residents and tourists). The subjective cognition of residents of the positive and negative impacts of tourism on the development of their own living space is called tourism impact perception (Wang & Qu, 2014), in which the perception of the positive impact of tourism is the perception of positive tourism impact, while the perception of the negative impact of tourism is the perception of negative tourism impact.

In past studies, the perception of positive tourism impact and the perception of negative tourism impact have usually been regarded as two parallel constructs, and the study of the former's influence on the latter is rare. Gursoy and Rutherford's (2004) study found that positive tourism impact perception and negative tourism impact perception has a negative correlation. Gursoy et al. (2017) took the 2014 Brazil World Cup as an example to explore the influencing factors of local residents' support for festival tourism development in the context of large-scale festival events. The results showed that positive tourism impact perception will significantly weaken negative tourism impact perception. Therefore, the following assumption is put forward:

- **H1:** Positive tourism impact perception has a significant negative impact on the perception of negative tourism impact.

### *Perception of tourism impact and support for tourism development*

The social exchange theory is the most widely used theoretical framework to explain the attitude of tourism development at tourist sites (Choi & Murray, 2010). The theory explains that residents' attitude to tourism development depends on and is weighted against its benefits and costs. If the positive perception of tourism impact (interest) is greater than the negative perception (cost), residents will be willing to participate in the exchange and hold a positive attitude towards tourism development. On the contrary, if residents' negative perception of tourism impact (cost) is greater than their positive perception (interest), they will show a negative attitude to tourists and display resentment (Li, Zhou, & Fan, 2015; Wang & Lu, 2014). The theory of social exchange provides a theoretical basis for the establishment of the relationship between tourism impact perception and tourism development.

Tourism development brings a variety of effects to the local residents, and in general, there are positive and negative effects. From the perspective of positive impacts, tourism development creates new investment opportunities, promotes local economic growth, and promotes residents' living standard improvement (Nunkoo & Gursoy, 2012). It is generally believed that positive tourism impact perception is positively related to residents' support for tourism development (Lee, Kang, Long, & Reisinger, 2010). In terms of the negative impacts, tourism development leads to increased cost of living, causes prices and housing prices to rise, and results in traffic congestion and environmental pollution (Gursoy, Chi, & Dyer, 2010). In general, negative tourism impact perception is negatively related to residents' support for tourism development (Wang & Lu, 2014). Therefore, the following assumptions are put forward:

- **H2:** Positive tourism impact perception has a significant positive impact on residents' support for tourism development.
- **H3:** Negative tourism impact perception has a significant negative impact on residents' support for tourism development.

### *Mediating effect of negative tourism impact perception*

Gursoy et al.'s (2017) research found that the perception of positive tourism impact will affect residents' support for tourism development through the negative tourism impact perception. In addition, the relationship between positive tourism impact perception, negative tourism impact perception and residents' support for tourism development is indicated by the hypothesis of H1 to H3: The positive perception of tourism impact, on the one hand, is caused by residents getting benefits from tourism development, which promotes their support for tourism development; on the other hand, because tourism development inevitably brings negative effects, the negative perception of tourism impact becomes an intermediary to reduce residents' support for tourism development. Therefore, the following assumptions are put forward:

- **H4:** Negative tourism impact perception plays a partial intermediary role in the relationship between perception and support of tourism development.

### *The regulatory role of trust in tourism development company*

The theory of social exchange is the basic theory to explain the attitude of tourism development. With the deepening of research, scholars gradually realize that tourism development in the context of social exchange is different from the economic transactions of social exchange: the former is 'embedded' in certain social network, and social interaction relations between the two sides of the transaction can interfere with transactions subject to the assessment of the benefits and costs, and has a significant impact on social exchange (Kaya, 2002; Li et al., 2015). Based on this, some scholars such as Gursoy et al. (2017) start from the trust of residents in tourism managers and examine the impact of trust relationship on residents' perception of tourism impact and support for tourism development. The results showed that the former has a significant impact on the latter two. Therefore, the trust in the elements of social relations can be studied as an adjustment variable.

Trust in tourism development company is understood as the confidence that residents will not abuse the power of the tourism development company. Trust is the basis for the existence and expansion of social exchange (Zafirovski, 2005). The higher level of trust residents have in tourism



development company, the stronger they feel that they have the power to influence tourism decision-making, the less they perceive the negative tourism impacts, and the greater their support for tourism development is (Nunkoo & Gursoy, 2012). On the contrary, the lower the level of trust residents have in tourism development company, the stronger they feel that they are insignificant in social exchange, the greater they perceive negative tourism impact, and the stronger their sense of conflict with tourism development is. Therefore, the following assumption is put forward:

- **H5:** Trust in tourism development company regulates the negative impact of perceived negative tourism impact on residents' support for tourism development.

In other words, the higher the level of trust in tourism development company, the less negative impact of the negative tourism impact perception on the residents' support for tourism development there is.

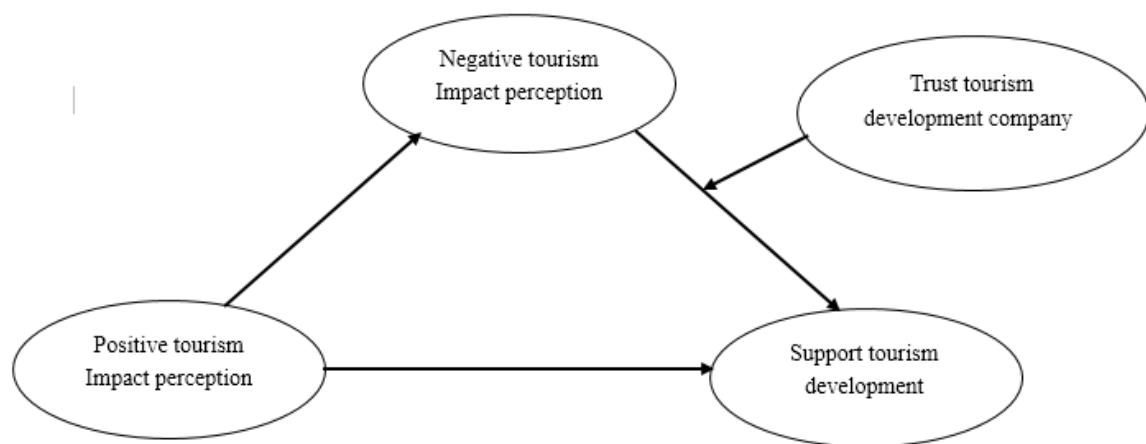
#### *Mediating effect*

H1 to H4 assume and deduce a relationship between the positive and negative perceptions of the impact of tourism and residents' support for tourism development on the mediating effect of trust; H5 proposes that tourism development corporation regulates the negative perception of tourism impact and residents' support for tourism development. Based on the above assumptions, the establishment of the intermediary model is adjusted. This study believes that residents' trust in tourism development company is high, and the indirect effect of positive tourism impact perception is negatively related to residents' support for tourism development. Therefore, the following assumption is put forward:

- **H6:** Trust in tourism development company regulates the mediating effect of negative tourism impact perception on positive tourism impact perception and residents' support for tourism development.

That is, the higher the trust in tourism development company, the weaker the mediating effect of negative tourism impact perception on positive tourism impact perception and residents' support for tourism development.

Based on the above literature review and the hypotheses, a theoretical model of this study is proposed (Figure 1).



*Figure 1: The theoretical model*

## **RESEARCH DESIGN**

### *Case study*

Wuzhen, which is located in Tongxiang, Zhejiang Province, China, has a history of town development since 1300. It is one of the six ancient towns in the south of China. Shanghai, Hangzhou, Suzhou and other developed cities are all within 2 hours' driving distance. A good geographical location brings Wuzhen larger flow of people, logistics and capital flow. In 1991, Wuzhen was selected as the famous historical and cultural city of Zhejiang Province, and was included in the list of

the world's cultural heritage protection in 2001. In 1999, the local government established the Wuzhen Tourism Development Co., Ltd., which was responsible for resource development and management of the East Gate and West Gate scenic spots. In 2007, the CYTS Holdings Ltd of Wuzhen Tourism Capital Holdings Company (60% stake) owned exclusive rights to obtaining the East Gate and West Gate scenic areas. In recent years, the tourism industry of Wuzhen has been a great success and has been known as the 'Wuzhen model' by the tourism industry through the strong marketing and strong enterprise management of the Wuzhen government. The choice of Wuzhen as a case is typical and representative.

### *Research samples*

In this study, residents living in the town of Wuzhen were investigated. The survey began on March 25, 2017 and ended on April 23, and four questionnaires were conducted. The investigation sites included River Road, Wan Road, South Gate Street, 13 street, 1 East Gate Scenic Area, floating bridge, ginkgo village, three Lan Li Tang District 3 District, East Gate, West Gate Scenic Spot and the surrounding neighborhoods. Questionnaires were issued by household (shop) investigation. Before the survey, the respondents were asked whether he/she was a native of Wuzhen. If a positive answer was obtained, a questionnaire was issued. Otherwise the researchers would give up and find the next respondent. In order to improve the efficiency of the questionnaire, the seriously filled answers would be given a gift of nail clipper. A total of 420 questionnaires were issued, and 399 effective questionnaires were obtained, achieving an effective rate of 95%.

The socio-demographic characteristics of the effective sample are as follows: In terms of gender, men accounted for 45.4%, women accounted for 54.6%, achieving a basic balance of the proportion of men and women. In terms of age, 18-24 year-old respondents accounted for 14%, 25-34 year-old respondents accounted for 34.1%, 35-44 year-old respondents accounted for 26.8%, 45-54 year-old respondents accounted for 15%, respondents of 54 year-old or above accounted for 10%, denoting that most respondents were of young age. In the aspect of education level, the category of junior high school and below accounted for 34.6%, that of senior high school or technical secondary school accounted for 38.8%, that of college or university graduate students accounted for 26.1%, that of secondary and below accounted for 0.5%. In terms of monthly income, respondents receiving 2000 RMB and below accounted for 8.3%, those receiving 2001-3000 RMB accounted for 18.3%, those receiving 3001-4000 RMB accounted for 34.1%, those receiving 4001-5000 RMB accounted for 17.8%, those receiving more than 5000 RMB accounted for 21.6%, signifying that the respondents mainly received a middle level of income. In terms of occupation, workers accounted for 2.3%, students accounted for 3.8%, civil servants accounted for 1.5%, farmers accounted for 0.3%, individual operators accounted for 54.9%, teachers accounted for 0.8%, professional technicians accounted for 5.5%, management personnel accounted for 2.3%, service or sales staff accounted for 19.5%, retired personnel accounted for 3.3%, other occupations accounted for 6%, denoting that most respondents were individual operators and service or sales staff.

### *Variable measurement*

This study included four variables: positive tourism impact perception, negative tourism impact perception, trust in tourism development company, and support for tourism development, and four control variables: gender, age, education level, and monthly income. Among them, a Likert 5-point scale was used for the measurement of the latent variables, with 1, 2, 3, 4, 5 representing complete disagreement, disagreement, neutral, consent, and complete consent respectively.

- (1) *Positive tourism impact perception*: The scale in Lee's (2013) study was used for the measurement of the variable, with a total of six items, such as 'tourism increases job opportunities for local residents'. In this study, the Cronbach's alpha value of the scale was 0.800.
- (2) *Negative tourism impact perception*: The variable was measured according to Nunkoo and Ramkissoon's (2011) study. There were four items, for example, 'tourism increases conflicts between tourists and residents'. In this study, the Cronbach's alpha value of the scale was 0.650.
- (3) *Trust in tourism development company*: The variable scale by Gursoy et al. (2017) in the study of 'trust in Festival Organizing Committee' was adopted. The item 'Festival Organizing Committee' was replaced by 'tourism development company'. There were a total of three items, such as 'I

believe that tourism development corporation will make the right tourism decision'. In this study, the Cronbach's alpha value of the scale was 0.862.

- (4) *Support the development of tourism*: The scale in Wang and Xu's (2015) research was used for the measurement of the variable, with a total of four items, such as 'I support a certain place to attract more tourists'. In this study, the Cronbach's alpha value of the scale was 0.874.
- (5) *Control variables*: Previous studies showed that demographic variables such as gender, age, education level and monthly income are closely related to tourism development (Gaunette, 2017; Xu & Zhong, 2016). Therefore, this study was controlled by four variables, namely gender, age, educational level, and monthly income.

### *Research methods*

The total sample (S=399) was randomly divided into subsamples 1 (S1=199) and subsample 2 (S2=200). Subsample 1 was used for exploratory factor analysis and construct validity test measurement of the latent variable scale; subsample 2 was used for confirmatory factor analysis and test items and measurement of the latent variable affiliation; the entire sample was used for validation of the analytical model and proposed research hypotheses test to obtain empirical support. All analysis was done with the aid of SPSS20.0 and AMOS17.0 software.

## **RESEARCH RESULTS**

### *Exploratory factor analysis*

Using subsample 1 (S1=199) and using SPSS20.0 to carry out exploratory factor analysis on 17 items, the structure validity of the latent variable scale was tested. Factors were extracted by principal component analysis, and factor loading was obtained by orthogonal rotation of variance, and factor analysis was carried out with the principle of characteristic root greater than 1 as factor extraction. If the factor loading was less than 0.4 or the cross loading was greater than 0.4, the item would be removed (Hair, Tatham, Anderson, Black, 1998). The analysis results showed that KMO = 0.808 (greater than 0.7) and Sig.= 0.000 (less than 0.001), indicating that the item was suitable for factor analysis.

### *Confirmatory factor analysis*

The subsample 2 (S2=200) was used to verify the goodness of fit, reliability and validity of the measurement model by Amos17.0. From the fitting index of the measurement model and the sample data, the chi square 2/df = 2.011 was less than 3, GFI = 0.911, IFI = 0.942, TLI = 0.924, CFI = 0.941, four indicators were all greater than 0.9, AGFI = 0.868 was close to 0.9, RMSEA = 0.071 was less than 0.08. Except for a little less than 0.9 AGFI, the rest of the indicators met the requirements of the study, indicating that the measurement model fit well with the sample data.

The reliability test included the test of the combined reliability and the average extraction variance. From Table 2, we can see that the combination confidence of 'positive tourism impact perception', 'negative tourism impact perception', 'trust in tourism development company' and 'support for tourism development' were 0.783, 0.655, 0.864 and 0.864 respectively, which were close to or larger than those of Hair et al.'s (1998) recommended criteria of 0.7. The average extraction variance of 'positive tourism impact perception', 'negative tourism impact perception', 'trust in tourism development company' and 'support for tourism development' were 0.427, 0.498, 0.680 and 0.622 respectively, which were close to or larger than those of Fornell and Larcker (1981) recommended criteria of 0.5. Therefore, the reliability of the above four latent variables was acceptable.

*Table 1: Exploratory factor analysis results*

Latent variable	Item	Factor loading	Characteristic root	Cumulative explanatory variance (%)
Positive tourism impact perception	Q1: Tourism increases job opportunities for local residents	0.661	2.357	20.128
	Q2: Tourism has promoted cultural communication between local residents and tourists	0.828		
	Q3: Tourism has promoted the development of local cultural activities	0.810		
	Q4: Tourism has promoted residents' identification with the local culture	0.796		
	Q5: Tourism has promoted the development of local business	0.429		
Negative tourism impact perception	Q6: Tourism increases conflicts between tourists and residents	0.721	1.117	29.602
	Q7: Tourism increases the local crime rate	0.632		
Trust in tourism development company	Q8: I believe that tourism company will make the right travel decisions	0.855	1.503	47.572
	Q9: I believe that tour company will consider the interests of local residents	0.841		
	Q10: I trust tourism decisions made by tourism company	0.860		
Support tourism development	Q11: I support Wuzhen to attract more tourists	0.857	4.753	69.496
	Q12: I support Wuzhen's increase in tourist attractions	0.825		
	Q13: I support Wuzhen's increase in investment in the development of tourism	0.855		
	Q14: I support Wuzhen to consider various types of tourism development	0.766		

*Table 2: Confirmatory factor analysis results*

Latent variable	Item	Standardized factor loading	T-value	Composite reliability	Average extraction variance
Positive tourism impact perception	Q1	0.548	7.711***	0.783	0.427
	Q2	0.777	11.990***		
	Q3	0.787	12.192***		
	Q4	0.521	7.264***		
	Q5	0.585	8.343***		
Negative tourism impact perception	Q6	0.548	5.108***	0.655	0.498
	Q7	0.834	5.894***		
Trust in tourism development company	Q8	0.774	12.300***	0.864	0.680
	Q9	0.825	13.418***		
	Q10	0.872	14.518***		
Support tourism development	Q11	0.905	15.976***	0.864	0.622
	Q12	0.921	16.434***		
	Q13	0.715	11.341***		
	Q14	0.556	8.242***		

Note: \* \* \* \* \* p<0.001.

The validity test included the test of the aggregation validity and the difference validity. It is generally believed that if the T value of the standardized factor loading of the item is significant at a certain level, it shows that the latent variable scale has good aggregation validity. If the square root of the mean variance of the latent variable is larger than the correlation coefficient between the latent

variables and other latent variables, it shows that the latent variables have sufficient discriminant validity (Fornell and Larcker, 1981). From Table 2, it is shown that the T value of the standardized factor loading of all the items was significant at the 0.001 level, which indicated that the four latent variable scales had good aggregation validity. From Table 3, we can see that the square root of the mean variance of the latent variable was between 0.653 and 0.825, and the correlation coefficient between the latent variables was between -0.161 and 0.603. The former was larger than the latter, which indicated that there was an ideal discriminant validity between the four latent variables.

Based on the above analysis, the goodness of fit, reliability and validity of the four latent variable models met the basic requirements of the research.

*Table 3: Square root and correlation coefficient of average extraction variance*

Latent variable	1	2	3	4
1. Positive tourism impact perception	0.653			
2. Negative tourism impact perception	-0.224	0.706		
3. Trust in tourism development company	0.603	-0.161	0.825	
4. Support tourism development	0.572	-0.378	0.463	0.789

Note: The diagonal value is the square root of the average extraction variance, and the value below the diagonal is correlation coefficient.

#### *Verification and analysis of model*

In order to test the positive perception of tourism impact regulation to the support of tourism development as well as the negative perception of tourism impact and the mediating role of trust in tourism development company, the total sample (S=399), using SPSS20.0 for data hierarchical regression analysis, was used to test and adjust the mediating effect of intermediary effect, regulating effect.

##### (1) The test of the mediating effect of negative tourism impact perception

The mediator effect of Baron and Kenny's (1986) test was used to test the mediating effect of negative tourism impact perception. First, the effect of the independent variable (positive tourism impact perception) on the intermediary variable (negative tourism impact perception) was tested, and the results are shown in Table 4 (model 2). Model 2 showed that positive perception of tourism impact had a significant negative effect on the perceived negative impact of tourism ( $P = -0.133$ ,  $p < 0.01$ ); therefore, it was assumed that H1 was supported. Secondly, the effect of the variable (perceived positive tourism impact) on the dependent variable (support for tourism development) was tested, and the results are shown in Table 4 (model 4). Model 4 showed that the positive perception of tourism impact had a significant positive effect on the support for tourism development ( $\beta = 0.441$ ,  $p < 0.001$ ); therefore, it was assumed that H2 was supported. Thirdly, the effect of the intermediary variable (negative perception of tourism impact) on the dependent variable (support for tourism development) was inspected, and the results are shown in Table 4 (model 5). Model 5 showed that the negative perception of tourism impact had a significant negative effect on the support for tourism development ( $P = -0.259$ ,  $p < 0.001$ ); therefore, it was assumed that H3 was supported. Finally, the effect of the variable (perceived positive tourism impact) and the intermediary variable (negative perception of tourism impact) on the dependent variable (support for tourism development) was tested, and the results are shown in Table 4 (model 6). From model 6, adding the 'perception' of negative tourism impact, positive perception of tourism impact still had a significant positive effect on the support for tourism development ( $\beta = 0.414$ ,  $p < 0.001$ ), but the effect was weakened; therefore, the negative perception of tourism impact actively played a part as the intermediary role between perceived influence and support for tourism development. Therefore, it was assumed that H4 was supported.

Table 4: Test results of mediating effect

Project	Variable	Negative tourism impact perception		Support for tourism development			
		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Control variables	Gender	-0.049	-0.050	0.074	0.077	0.061	0.067
	Age	0.110	0.104	-0.092	-0.073	-0.063	-0.052
	Level of education	-0.048	-0.047	0.005	-0.001	-0.008	-0.011
	Monthly income	-0.059	-0.054	0.137**	0.119**	0.122*	0.109*
Independent variable	Positive tourism impact perception		-0.133**		0.441***		0.414***
Mediator variable	Negative tourism impact perception					-0.259***	-0.203***
Model summary	F-measure	2.673*	3.626**	3.318*	23.021***	8.547***	23.663***
	R2	0.026	0.044	0.033	0.227	0.098	0.266
	ΔF-measure	2.673*	7.266**	3.318*	98.545***	28.533***	62.288***
	ΔR2	0.026	0.018	0.033	0.194	0.065	0.233

Note: \* denotes  $p < 0.05$ , \*\* indicates  $p < 0.01$ , \*\*\* indicates  $p < 0.001$

(2) The test of the regulatory effect of trust in tourism development company

The test was divided into three steps: first, the four variables of gender, age, education level and monthly income were included in the regression equation. In the second step, the mediating variable (negative tourism impact perception) and the moderating variable (trust in tourism development company) were incorporated into the regression equation. In the third step, the product of the intermediate variable and the adjustment variable (negative tourism impact perception and trust in tourism development company) was incorporated into the regression equation. In order to reduce the multiple collinearity between variables in the equation, the two variables of negative tourism impact perception and trust in tourism development company were centralized before constructing product items. The results of the regulatory effect test are shown in Table 5.

Table 5: Results of regulation effect test

Item	Variable	Support tourism development		
		Model 1	Model 2	Model 3
Control variables	Gender	0.074	0.021	0.023
	Age	-0.092	-0.058	-0.058
	Level of education	0.005	0.037	0.035
	Monthly income	0.137**	0.094*	0.101*
Independent variable	Negative tourism impact perception		-0.240***	-0.252***
Mediator variable	Trust in tourism development company		0.306***	0.283***
Product item	Negative tourism impact perception × Trust in tourism development company			0.113*
Model summary	F-measure	3.318*	15.088***	13.938***
	R2	0.033	0.188	0.200
	ΔF-measure	3.318*	37.402***	5.901*
	ΔR2	0.033	0.155	0.012

Note: \* denotes  $p < 0.05$ , \*\* indicates  $p < 0.01$ , \*\*\* indicates  $p < 0.001$ .

In Table 5, model 3 showed that the product of negative tourism impact perception and trust in tourism development corporation had a significant positive effect on the support for tourism development ( $\beta = 0.113$ ,  $p < 0.05$ ), showing that trust in tourism development corporation positively moderates the negative relationship between negative perception of tourism impact and the support for tourism development; therefore, it was assumed that H5 had been confirmed. Figure 2 shows the regulatory role of trust in tourism development company in the relationship between the perception of negative tourism impact and the support for tourism development.

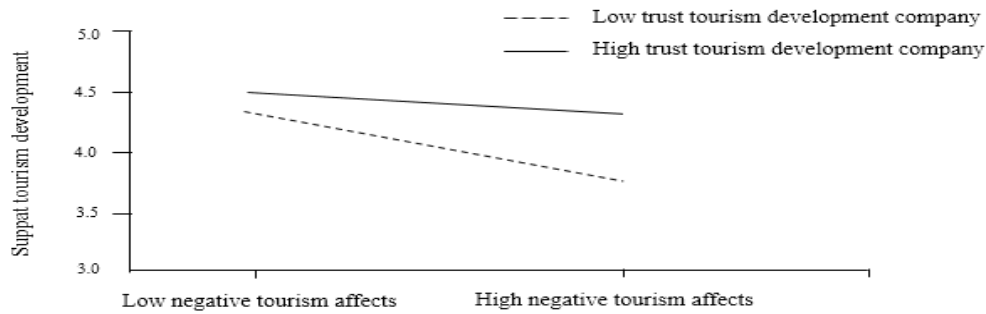


Figure 2: The regulatory effect of trust in tourism development company

### (3) The mediation of mediating effect test

Wen, Zhang and Hou (2006) introduced the ‘mediated mediation effect’ method to test the effect in four steps. The first step was to carry out the regression analysis of the dependent variable (supporting for tourism development) on the independent variable (positive tourism impact perception) and the regulatory variable (trust in tourism development company). The second step was a regression analysis of the independent variable and moderating variable. The third step was a regression analysis of the dependent variable, independent variable, mediator variable, and moderator variable. The fourth step was a regression analysis of the dependent variable on the independent variable, the intermediary variable, the adjustment variable, and the product item of the intermediary variable and the adjustment variable after centralization (negative tourism impact perception and trust in tourism development company). The results of the analysis are shown in Table 6.

Table 6: Mediated effect test results

Project	Variable	Negative tourism impact perception		Support for tourism development			
		Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Control variables	Gender	-0.049	-0.050	0.074	0.058	0.048	0.048
	Age	0.110	0.104	-0.092	-0.072	-0.051	-0.051
	Level of education	-0.048	-0.047	0.005	0.020	0.011	0.009
	Monthly income	-0.059	-0.054	0.137**	0.108*	0.097*	0.103*
Independent variable	Positive tourism impact perception		-0.132*		0.376***	0.349***	0.343***
Mediator variable	Negative tourism impact perception					-0.203***	-0.214***
Regulating variable	Trust in tourism development company		-0.002		0.143**	0.142**	0.126*
Product item	Negative tourism impact perception × Trust in tourism development company						0.095*
Model summary	F measure	2.673*	3.014**	3.318*	20.842***	21.843***	19.870***
	R2	0.026	0.044	0.033	0.242	0.281	0.290
	$\Delta F$ measure	2.673*	3.624*	3.318*	54.101***	45.059***	35.267***
	$\Delta R2$	0.026	0.018	0.033	0.209	0.249	0.257

Notes: \* denotes  $p < 0.05$ , \*\* indicates  $p < 0.01$ , \*\*\* indicates  $p < 0.001$ .

In Table 6, the first step showed that positive tourism impact perception had a significant positive impact on the support for tourism development ( $\beta = 0.376$ ,  $p < 0.001$ ; see model 4). In the second step, positive tourism impact perception had a significant negative impact on the perception of negative tourism impact ( $\beta = 0.132$ ,  $p < 0.05$ ; see model 2). The third step showed that negative tourism impact perception had a significant negative impact on the support for tourism development ( $\beta = 0.203$ ,  $p < 0.001$ ; see model 5). In the fourth step, the product item of negative tourism impact perception and trust in tourism development company had a significant positive impact on the support for tourism development ( $\beta = 0.095$ ,  $p < 0.05$ ; see model 6). This showed that trust in tourism development company regulated the intermediary role of negative tourism impact perception between positive tourism impact perception and residents' support for tourism development, that is, the intermediary effect was regulated. Therefore, it was assumed that H6 was confirmed.

## DISCUSSION AND CONCLUSION

### *Research conclusions*

The main conclusions of this study are as follows: First, positive tourism impact perception can weaken 'negative tourism impact perception'. This study shows that positive tourism impact perception has a significant negative impact on negative tourism impact perception. In the past studies, the two were usually constructed as two parallel structures, and few scholars discussed their relationship. Comparatively speaking, the conclusion of this study is a supplement to the existing research results, which is of great theoretical significance for tourism managers to weaken the perception of negative tourism impacts of residents.

Second, negative tourism impact perception partly impacts upon positive tourism impact perception and residents' support for tourism development. This study found that active tourism impact perception has a direct impact on residents' support for tourism development, but also through the negative perception of tourism impact on this pipeline. Positive tourism impact perception first weakens residents' perception of negative tourism impacts, and then mitigates negative tourism impacts on residents. Previous studies focused only on the direct impact of positive tourism impact perception on residents' support for tourism development, and few studies have explored the specific mechanism of the effect of positive tourism impact perception on residents' support for tourism development. The conclusion of this study reveals a new way of positive tourism impact perception and residents' support for the development of tourism.

Third, trust in tourism development company positively regulates the negative impact of negative tourism impact perception on residents' support for tourism development. This study first introduced trust in tourism development company as an adjustment variable, and confirmed its effects on the relationship between the perception of negative tourism impact and residents' support for tourism development. The conclusion of this study finds an important boundary condition for the negative tourism impact perception and residents' support for tourism development, and provides a new perspective for a more objective interpretation of the formation of residents' attitude towards tourism development.

### *Management implications*

This study puts forward the following three aspects for management enlightenment: First, we should weaken the negative tourism impact perception by positive tourism impact perception. This study found that the perception of positive tourism impact has a significant negative impact on the perception of negative tourism impact. This shows that residents' perception of positive tourism impact can play a weakening role or even shield negative tourism impact perception. Therefore, tourist managers can take the following measures: (1) establish a supervision mechanism of residents' attitude towards tourism development, listen to the opinions of residents on the present situation of tourism development, continue to carry forward the satisfactory aspects and improve the unsatisfactory aspects; and (2) strengthen the propaganda of the positive influence of tourism, improve residents' cognition on the positive influence of tourism, and cultivate residents' support for the development of tourism.



Second, we should pay attention to the mediating role of negative tourism impact. The study found that, in addition to direct impact, positive tourism impact perception can also have an indirect impact on residents' support for tourism development through the intermediary transmission of negative tourism impact perception. This shows that the perception of positive tourism impact will affect residents' support for tourism development through two paths, where the path of direct impact plays a promotion role and the path of indirect impact plays an inhibitory role. According to the social exchange theory, residents can only support tourism development if the promotion effect is greater than the inhibitory effect. Therefore, tourism managers should attach importance to the mediator conduction of negative tourism impact perception, and ensure that the inhibition effect of this path is weaker than the promotion effect of the other path.

Third, efforts should be made to cultivate residents' trust in tourism development company. This study found that trust in tourism development company positively regulates the negative impact of negative tourism impact perception on residents' support for tourism development. This shows that when residents' trust in tourism development company is relatively high, the negative impact of negative tourism impact perception on residents' support for tourism development will be reduced. Therefore, cultivating residents' trust in tourism development company helps to improve residents' support for tourism development. Trust is a result of continuous enhancement of satisfaction (Xie & Zhao, 2010). Tourism development company can cultivate residents' trust by improving residents' satisfaction, such as by (1) helping residents to solve the problems of work and life caused by tourism development; (2) recognizing residents who have made important contributions to the development of tourism; and (3) giving residents certain ticket exemptions from scenic areas.

#### *Limitations*

The research had some limitations, including two aspects: First, the reliability of the negative tourism impact perception scale was slightly low. The Cronbach's alpha value in this study was 0.650, which was slightly lower than the common standard of 0.7 in management. Future research should adopt a more mature scale to ensure that it has good reliability. Second, the survey subjects were mainly local residents, which did not include those not living in the town and those working out of the town. Future research can employ snowball sampling and other measures to bring these residents into the research area, so as to improve the external validity of the research conclusion.

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