



**INFLUENCE OF TOURIST-TO-TOURIST INTERACTION AND
ENVIRONMENTAL CONTEXTUAL FACTORS ON TOURISTS' PRO-
ENVIRONMENTAL BEHAVIORS IN CHINA**

By

XIAO YUE

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of
Philosophy**

July 2022

SPE 2022 18

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

INFLUENCE OF TOURIST-TO-TOURIST INTERACTION AND ENVIRONMENTAL CONTEXTUAL FACTORS ON TOURISTS' PRO-ENVIRONMENTAL BEHAVIORS IN CHINA

By

XIAO YUE

July 2022

Chair : Yee Choy Leong, PhD
Faculty : School of Business and Economics

Tourists' illegal behaviors are one of the main reasons for the environmental problems of China's tourism industry. In recent years, more tourism researchers began to pay attention to the role of tourists and their actions in the ecological protection of tourist destinations, namely tourists' pro-environmental behaviors. However, previous researches on pro-environmental behaviors usually focused on tourists' individual factors but ignored the impact of contextual interaction factors. Therefore, this thesis tries to fill in the literature gap by exploring the influence of tourist-to-tourist interaction and environmental contextual factors on tourists' pro-environmental behaviors (PEB).

Taking three important theories such as norm activation model (NAM), social capital theory, and broken window theory as the theoretical basis, this study explains tourists' pro-environmental behaviors from interpersonally and environmentally contextual perspectives. It selects interpersonal ties, group norms, and social trust of tourist interaction and environmental contextual factors as external factors to study their influences on the internal factors of tourists' pro-environmental behaviors. And face-to-face questionnaires are used to collect data and Partial least squares (PLS), which is a variance-based SEM method to evaluate hypotheses. As a result, the findings of this study revealed that 1) Group norms, personal norms, social trust and environmental contextual factors have a direct impact on the pro-environmental behavior; 2) Ascription of responsibility and group norms have an indirect impact on the pro-environmental behavior via personal norms; 3) while awareness of consequences has an indirect impact on personal norms via ascription of responsibility; 4) interpersonal ties regulate the relationship between group norms and pro-environmental behaviors. This study has added value to the social capital theory, broken window theory, and the NAM in their applicability's in explaining tourists' PEB.

Plus, it provided a feasible interaction direction for Chinese tourism managers to guide tourists' PEB.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**PENGARUH INTERAKSI PELANCONG KEPADA PELANCONG DAN
FAKTOR KONTEKSTUAL PERSEKITARAN TERHADAP TINGKAH LAKU
PELANCONG PRO-ALAM SEKITAR DI CHINA**

Oleh

XIAO YUE

Julai 2022

Pengerusi : Yee Choy Leong, PhD
Fakulti : Sekolah Perniagaan dan Ekonomi

Tingkah laku delinkuen pelancong adalah salah satu masalah utama pelancongan alam sekitar di China. Sejak kebelakangan ini, semakin ramai penyelidik telah mula memberikan perhatian terhadap peranan yg dimainkan oleh pelancong dan tindakan mereka terhadap perlindungan ekologi di kawasan pelancong, yang juga dikenali sebagai tingkah laku pelancong pro-alam sekitar. Walaubagaimanapun, kajian terdahulu secara amnya memfokuskan kepada faktor individual yg berkaitan dengan pelancong dan mengabaikan kesan faktor interaksi kontekstual. Oleh itu, kajian ini adalah untuk memenuhi jurang literatur dengan meneliti pengaruh interaksi pelancong ke pelancong dan faktor kontekstual persekitaran terhadap tingkah laku pelancong yang pro-alam sekitar (pro-environmental behaviour - PEB).

Kajian ini mengambil kira tiga teori penting, iaitu norm activation model (NAM), the social capital theory and broken window theory, sebagai teori asas untuk menerangkan tingkah laku pelancong pro- alam sekitar ini dari perspektif interpersonal dan kontekstual alam sekitar. Kajian ini juga memilih hubungan interpersonal, norma kumpulan, dan kepercayaan sosial interaksi pelancong dan faktor kontekstual persekitaran sebagai faktor luaran untuk mengkaji pengaruhnya terhadap faktor dalaman tingkah laku pelancong pro-alam sekitar. Kaedah yang digunakan bagi kajian ini adalah kaedah soal selidik secara bersemuka untuk mengumpul data dan Partial least squares (PLS), kaedah SEM berasaskan varians untuk menilai hipotesis. Hasil kajian mendapati 1) norma kumpulan, norma peribadi, kepercayaan sosial dan faktor kontekstual persekitaran secara langsung memberi kesan kepada tingkah laku pro-alam sekitar. 2) Penetapan tanggungjawab dan norma kumpulan secara tidak langsung memberi kesan kepada tingkah laku pro-alam sekitar melalui norma peribadi. 3) Kesedaran tentang akibat secara tidak langsung memberi kesan

kepada norma peribadi melalui penetapan tanggungjawab. 4) Hubungan interpersonal menyederhanakan hubungan antara norma kumpulan dan tingkah laku pro-alam sekitar. Kajian ini menambah nilai kepada social capital theory, broken window theory, dan NAM theoretical model dalam kebolehgunaannya menerangkan tingkah laku pelancong pro-environmental. Di samping itu, kajian ini juga menyediakan hala tuju interaksi yang boleh digunakan oleh pengurus pelancongan Cina sebagai garis panduan untuk pelancong pro-alam sekitar.



ACKNOWLEDGEMENT

This doctorate study journey was the most challenging decision for me. Looking back on the time I spent studying abroad in the past few years, I can't help but have mixed feelings that are beyond words. This process has carried me too many hardships, but these years have made me feel precious and grateful! In the end, luckily, I reached the study goal I had set in my heart. Hereby, I would love to express my thankful words to people who guided and helped me until the end of my doctorate study journey.

First, I would love to express my greatest appreciation to my supervisor Dr. Yee Choy Leong. I am very fortunate to have met him as my supervisor and pointed out the direction for my PhD studies. It is he who has always affirmed me, encouraged me, helped me, and stood firmly behind me at all times. Without him, I would not have been able to complete my PhD studies so smoothly. His profound knowledge, sharp thinking, innovative academic thoughts and tireless spirit are all models that I will never learn in my life. When I am about to finish my studies, I would like to convey my greatest respects and thanks for her responsible and elaborative guidance.

Second, I would like to pass my gratitude to my supervisory committee members Dr. Choo Wei Chong, Prof. Dr. Sridar Ramachandran and Dr. Haminmah Hassan. They provided very valuable suggestions in helping me to correct improper mindset showed in the first draft of my study. With supports from their valuable comments, my thesis construct had been corrected and improved sufficiently. From them I have learned the knowledge and thinking methods to engage in academic research, which will benefit me for life. Then I would also like to thank Dr. Ng Siew Imm. It was she who taught me the most basic academic methods of doing doctoral research, and helped me in how to think problems from various angles as a researcher. Finally, I would like to thank the Universiti Putra Malaysia and School of Business and Economics, which have a strong academic research atmosphere and have provided me with courage and confidence in my research and exploration.

Lastly, I would like to deliver my warmest thanks to my dearest parents, husband and my son for their continuous supports and cares throughout all these years. Every little bit of growth and progress in my life is the result of their hard work. Thanks to their understanding and support, I can concentrate on completing my studies.

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

Yee Choy Leong, PhD

Senior Lecturer
School of Business and Economics
Universiti Putra Malaysia
(Chairman)

Choo Wei Chong, PhD

Associate Professor
School of Business and Economics
Universiti Putra Malaysia
(Member)

Sridar a/I Ramachandran, PhD

Professor
School of Business and Economics
Universiti Putra Malaysia
(Member)

ZALILAH MOHD SHARIFF, PhD

Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 13 October 2022

Declaration by graduate student

I hereby confirm that:

- this thesis is my original work;
- quotations, illustrations and citations have been duly referenced;
- this thesis has not been submitted previously or concurrently for any other degree at any institutions;
- intellectual property from the thesis and the copyright of the thesis are fully-owned by Universiti Putra Malaysia, as stipulated in the Universiti Putra Malaysia (Research) Rules 2012;
- written permission must be obtained from the supervisor and the office of the Deputy Vice-Chancellor (Research and innovation) before the thesis is published in any written, printed or electronic form (including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials) as stated in the Universiti Putra Malaysia (Research) Rules 2012;
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld in accordance with the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2015-2016) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software

Signature: _____ Date: _____

Name and Matric No.: Xiao Yue

Declaration by Members of the Supervisory Committee

This is to confirm that:

- the research and the writing of this thesis were done under our supervision;
- supervisory responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2015-2016) are adhered to.

Signature: _____
Name of Chairman
of Supervisory
Committee: Dr. Yee Choy Leong

Signature: _____
Name of Member of
Supervisory
Committee: Assoc. Prof. Dr. Choo Wei Chong

Signature: _____
Name of Member of
Supervisory
Committee: Prof. Dr. Sridar a/l Ramachandran

TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	iii
ACKNOWLEDGEMENT	viii
APPROVAL	vi
DECLARATION	x
LIST OF TABLES	xx
LIST OF FIGURES	xxiii
LIST OF ABBREVIATIONS	xv
CHAPTER	
1 INTRODUCTION	1
1.1 Background of this Study	1
1.1.1 Tourism and Environmental Pollution in China	1
1.1.2 Tourists and Environmental Pollution in China	3
1.2 Problem Statement	6
1.3 Scope of the Study	9
1.4 Research Questions	10
1.5 Research Objectives	11
1.6 Significance	12
1.6.1 Theoretical Significance	12
1.6.2 Practical Significance	13
1.7 Definitions of Key Terms	14
1.8 Organization of this Thesis	16
1.9 Conclusion	16
2 LITERATURE REVIEW	17
2.1 Tourist's Pro-environmental Behaviors (TPEB)	17
2.1.1 Definitions and Concepts	17
2.1.2 Dimensional Division and Measurement	19
2.1.3 Determinants and Models	21
2.1.4 Theories of PEB	28
2.2 Contextual Factors	31
2.2.1 Factors of Tourist-to-Tourist Interaction	31
2.2.2 Environmental Contextual Factors	36
2.3 Personal Factors	39
2.3.1 Awareness of Consequences	39
2.3.2 Ascription of Responsibility	40
2.3.3 Personal Norm	42
2.4 Relevant Theories	44
2.4.1 Norm Activation Model Theory (NAM)	44
2.4.2 Social Capital Theory	46
2.4.3 Broken Window Theory	48
2.5 Gaps in the Literature	49
2.6 Conclusion	52

3	HYPOTHESES DEVELOPMENT	53
3.1	Conceptual Framework	53
3.2	Hypotheses Development	55
3.2.1	Awareness of Consequences Towards Personal Norm	55
3.2.2	Awareness of Consequences Towards Ascription of Responsibility	55
3.2.3	Ascription of Responsibility Towards Personal Norm	56
3.2.4	Personal Norms towards Pro-environmental Behaviors	56
3.2.5	Group Norms Towards Personal Norms	57
3.2.6	Group Norm Towards Pro-environmental Behaviors	57
3.2.7	Social Trust towards Pro-environmental Behaviors	58
3.2.8	Environmental Contextual Factors Towards Pro-environmental Behavior	59
3.2.9	Mediating Effect of Ascription of Responsibility	60
3.2.10	Mediating Effect of Personal Norms	61
3.2.11	Moderating Effect of Interpersonal Ties	62
3.3	Conclusion	63
4	METHODOLOGY	64
4.1	Research Paradigma	64
4.2	Research Design	65
4.3	Population of Study	66
4.4	Sample Size	66
4.5	Sampling Techniques	68
4.6	Data Collection Method	69
4.7	Research Instrument	72
4.7.1	Development of Questions	72
4.7.2	Demographic Questions	73
4.7.3	Measurement Scales for Constructs	73
4.8	Pre-Testing and Pilot Testing	84
4.8.1	Pre-Testing	84
4.8.2	Reliability and Validity for the Pilot Testing	85
4.9	Data Analysis Method	85
4.9.1	Data Preparation	86
4.9.2	Analyzing the Data	87
4.9.3	Partial Least Square (PLS-SEM)	89
4.9.4	Reflective and Formative Construction	90
4.9.5	Evaluating Measurement and Structural Model using PLS	91
4.10	Conclusion	98
5	DATA ANALYSIS	99
5.1	Pre-Testing and Pilot Testing	99
5.2	Data Preparation	100
5.2.1	Data Cleaning	100
5.2.2	Common Method Variance (CMV)	100
5.3	Demographic Details of Respondents	101
5.4	Constructs Correlation	103
5.5	Descriptive Statistics	104
5.6	Reflective Measurement Model Analysis	105

5.6.1	Construct Reliability	106
5.6.2	Convergent Validity	106
5.6.3	Discriminant Validity	110
5.7	Structural Model Assessment	118
5.7.1	Collinearity Analysis	118
5.7.2	Assessment of Path Coefficient	120
5.7.3	The Coefficient of Determination (R^2)	121
5.7.4	Effect Size f^2 Assessment	122
5.7.5	Predictive Relevance Q^2 Assessment	123
5.7.6	Testing for Mediating Effect	124
5.7.7	Moderating Effect Assessment	125
5.8	Summary of Hypotheses Results	126
5.9	Conclusion	128
6	DISCUSSION AND CONCLUSION	129
6.1	Discussion	129
6.1.1	Awareness of Consequences and Personal Norms	129
6.1.2	Awareness of Consequences and Ascription of Responsibility	130
6.1.3	Ascription of Responsibility and Personal Norm	130
6.1.4	Personal Norm and Pro-environmental Behavior	131
6.1.5	Group Norm and Personal Norm	132
6.1.6	Group Norm and Pro-environmental Behavior	132
6.1.7	Social Trust and Pro-environmental Behavior	133
6.1.8	Environmental Contextual Factors and Pro-environmental Behavior	134
6.1.9	Mediating Role of Ascription of responsibility	135
6.1.10	Mediating Effect of Personal Norms	135
6.1.11	Moderating Role of Interpersonal Ties	137
6.2	Contribution of this Study	138
6.2.1	Theoretical Contributions	138
6.2.2	Practical Contributions	140
6.3	Limitations and Future Directions of Study	142
6.4	Conclusion	143
6.5	Summary	144
	REFERENCES	145
	APPENDICES	171
	BIODATA OF STUDENT	197
	LIST OF PUBLICATIONS	198

LIST OF TABLES

Table		Page
1.1	Definitions of the terms	15
2.1	Research on the influence of causal factors on PEB	22
2.2	Relevant models and theories of TPEB	29
4.1	Tourism data of West Lake from 2007 to 2018	70
4.2	Pro-environmental behavior Scale	75
4.3	Social Trust Scale	76
4.4	Group norm Scale	78
4.5	Interpersonal Ties Scale	79
4.6	Awareness of consequences Scale	80
4.7	Ascription of responsibility Scale	81
4.8	Personal Norm Scale	82
4.9	Environmental contextual factors Scale	83
4.10	Assessing reflective measurement models	94
4.11	Assessing structural models	98
5.1	Results of the Pilot Study	100
5.2	Respondents' Profile	102
5.3	Results of correlation	104
5.4	Descriptive Statistics for All Constructs	105
5.5	Results Summary for Reflective Constructs	107
5.6	Analysis of Fornell-Larcker Criterion for Discriminant Validity	110
5.7	Discriminant Validity using Heterotrait-Monotrait (HTMT) criterion	111
5.8	Indicators Cross Loadings	112

5.9	Collinearity Assessment	118
5.10	Path Co-efficient Assessment	121
5.11	The Determination of Co-efficient (R^2)	122
5.12	First set of effect size	123
5.13	Second set of effect size	123
5.14	Third set of effect size	123
5.15	Assess the predictive relevance Q^2	124
5.16	Mediation Results	125
5.17	Moderating Effect of Interpersonal ties	126
5.18	Summary result for proposed hypotheses	127

LIST OF FIGURES

Figure		Page
1.1	Direct contribution of Travel and Tourism to GDP in China	2
1.2	Top Greenhouse Gas Emitters	3
1.3	Chinese tourists become one of the worst tourists in the world	4
1.4	The main uncivilized behaviors of Chinese tourists	5
2.1	The Norm Activation Model (NAM)	45
3.1	Conceptual framework	54
4.1	Research Design	66
4.2	Statistical result of G power	68
4.3	Map of the West Lake Scenic Area	69
4.4	Human activities and water pollution in the West Lake Basin	71
4.5	Differences between Reflective and Formative Constructs	90
4.5	PLS-SEM Model Evaluation Procedures	92
4.6	Structural Model Assessment Procedures	95
5.1	Measurement Model	117
5.2	Structural Model	119
5.3	Moderation Effect of Interpersonal Ties Scatterplot	126

LIST OF ABBREVIATIONS

PEB	Pro-environmental behavior
GN	Group norm
ST	Social trust
IT	Interpersonal ties
AC	Awareness of consequences
AR	Ascription of responsibility
PN	Personal norm
ECF	Environmental contextual factors
NAM	Norm Activation Model
TTI	Tourist-to-tourist interaction
CCI	Custom-to-custom interaction
PSB	Pro-social behavior

CHAPTER 1

INTRODUCTION

This Chapter discusses the current situation of tourism development and environmental issues relevant to this study in several parts. The first part is about the background of this study, including environmental pollution caused by China's tourism industry and the important role the Chinese tourists play in it. Next the scope and problem statement of this study are properly analyzed and the gaps in this study revealed. Finally, questions, objectives and significance of this study, definition of key terms, and the thesis structure are presented.

1.1 Background of this Study

1.1.1 Tourism and Environmental Pollution in China

As one of the fastest-growing and the most important economic sectors in the world, tourism plays an essential role in the national economic and social development of every country. Based on the WTTC's report in 2019 and 2021, the contribution of tourism to GDP was \$8.8 trillion (10.4% of the total GDP) in 2018 and 10.3% of the global GDP in 2019. Due to the epidemic lockdowns worldwide, the share which decreased to 5.3% in 2020 and increased to 6.1% in 2021. It is expected to grow by 3.7% every year, and by 2029, to account for 11.5% of the total GDP. In 2018, tourism created 319 million jobs or 10% of the total employment. In 2020, 62 million people lost jobs, a drop of 18.6%, and merely 271 million were employed across the sector globally compared to 333 million in 2019. Fortunately, 18.2 million jobs were recovered in 2021, a year-on-year increase of 6.7%.

According to the research of WTTC (2021), before the pandemic swept through the world, China's tourism contribution to GDP was 11.6% of the total economic output in 2019. Due to the impact of Covid-19, China's tourism contribution to the national economy has dropped by nearly 62.5%, only 4.3% to GDP in 2020. However, based on the current recovery rate in China, the tourism contribution to GDP increased by 16.9% (4.6% to GDP) in 2021 and was expected to increase by 43.3% in 2022. As shown in Figure 1.1, the direct contribution of tourism to GDP has increased on a year-by-year basis and has become an important means of promoting economic development. In 2018, the tourism created 79,910 jobs (10.3% of total employment), which is expected to create 121,425 jobs by 2029. The total number of tourists in China in 2018 was 5.539 billion, an increase of 10.8% from 2017.



Figure 1.1: Direct contribution of Travel and Tourism to GDP in China.
(Source: WTTC, 2018)

China has made gratifying achievements in the tourism industry in recent years. However, this has posed challenges to environmental protection and socio-economic development, thus hindering the realization of China's sustainable tourism development goals (Zhang et al., 2015). In January 2013, three scenic spots -Zhangjiajie in Hunan Province, Lushan in Jiangxi Province and Wudalianchi in Heilongjiang Province - were given a “yellow card” warning by UNESCO and ordered to correct their tourism development for violating the principles of environmental protection and ecological education. Data of a survey by the Chinese National Committee for Man and Biosphere Programme (MAB) show that 22% of nature resources in China currently are damaged by the development of tourism, 11% have severely degraded, and 44% are subject to serious waste pollution and 12% to water pollution. Further, 61% of construction facilities are inharmonious with the landscape environment. In 2017, water quality in offshore areas was detected as “poor” or “extremely poor” (MEE, 2018) in China’s most developed provinces and cities (such as Guangdong and Shanghai). According to the report of IQAir (2019), 48 cities in China rank within top 100 most polluted cities, and only 2% of the 400 cities in China meet the WHO’s annual PM2.5 target. In 2020, the number of Chinese residents exposed to PM2.5 still more than 3 times the annual guide of WHO. Hotan in Northwestern China became the world’s most polluted city (IQAir, 2020). In the *Emission Gap Report 2019* released by the United Nations (Figure 1.2), China has become the largest emitter of greenhouse gas in the world, which has been increasing over the past decade.

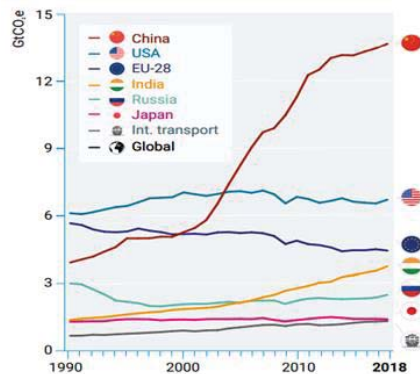


Figure 1.2: Top Greenhouse Gas Emitters.
(Source: UNEP, 2019)

On the one hand, the above data show that the booming tourism in China has delivered considerable economic benefits to the area of the scenic spot. On the other hand, it has also caused many problems to resources and environment. The deteriorating ecological quality of tourist destinations (such as environmental noise, water pollution, reduction of flora and fauna) will significantly reduce the attractiveness and competitiveness of tourist destinations and further hinder the sustainable development of local tourism. Therefore, it is an important issue for urgent discussion that how to realize environmental protection and sustainable development of tourism while maintaining the development of the tourism economy in China in the current tourism academia and industry.

1.1.2 Tourists and Environmental Pollution in China

The poor pro-environmental awareness of Chinese tourists is one of the leading causes of environmental problems in the tourism industry (Yao and Long, 2017). Uncivilized behaviors of Chinese tourists have become a big headache of many countries, which made them a bad name abroad. Of these, the environmentally unfriendly behavior is one of the most striking. According to the survey of YouGov Company in 2019, tourists from China are the least popular among residents in the tourist destinations compared with tourists from other parts of Asia. They are even listed as the worst-behaved tourists by six countries in the world. Again according to the survey, nearly two-thirds of Singaporeans classify Chinese tourists as the worst vacationers in the world, and 42% of Indians also have a poor impression of Chinese tourists. Although some foreign media may exaggerate uncivilized behaviors of Chinese tourists, there is no doubt that Chinese tourists have a poor awareness of environmental protection.

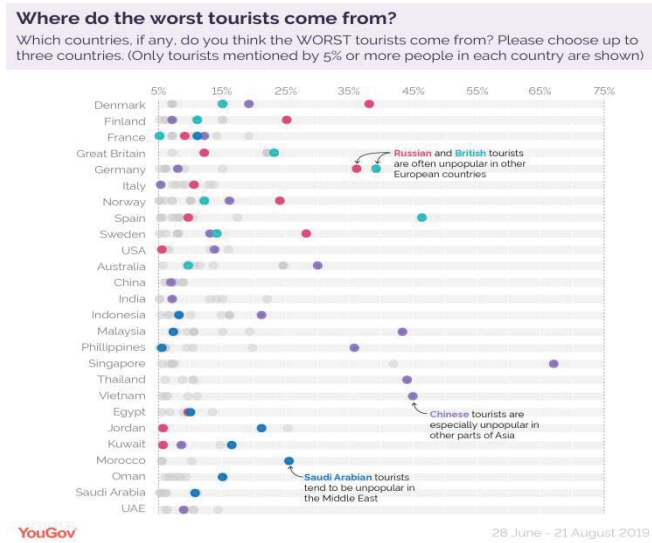


Figure 1.3: Chinese tourists become one of the worst tourists in the world
 (Adapted from Smith, 2019)

In recent years, Chinese tourists themselves have gradually realized their unfriendly behaviors. According to the *Survey of Civilized Behaviors in 2020* participated by China's 1.12 million netizens, spitting, littering, smoking in public, and doodling on the wall of tourist attraction are the main uncivilized tourist behaviors. As shown in Figure 1.4, the top three uncivilized behaviors in daily life are littering, queue jumping, and smoking in non-smoking areas. The first national survey of ecological civilization awareness in China found that the overall recognition awareness and practice scores of the public for ecological civilization were 74.8 and 60.1, showing the characteristics of "low cognition and insufficient practice." Their bad behavior and arrogant manner need the active attention of governmental sectors and scholars. Experts believe that most Chinese tourists' low awareness of protecting national cultural relics and the scenic area environment leads to the systematic destruction of tourism resources.

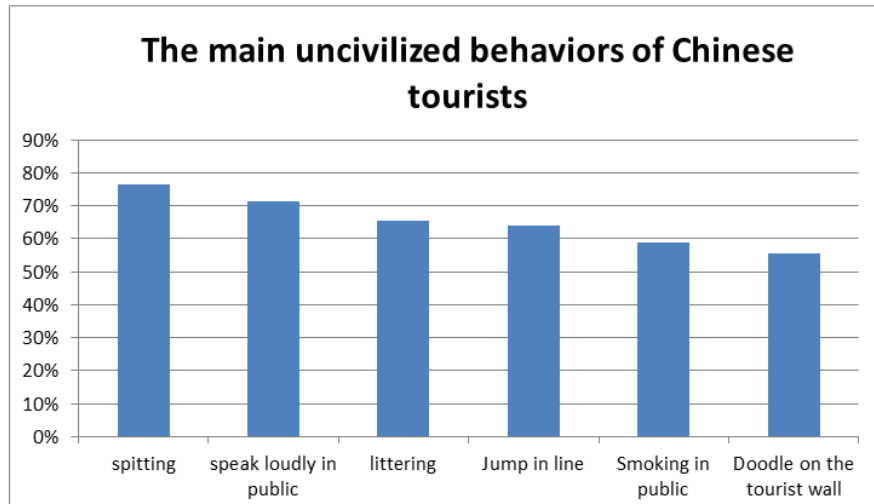


Figure 1.4: The Main Uncivilized Behaviors of Chinese Tourists
 (Source: China Capital Civilization Office, 2020)

There is a potential tourist assumption in the current sustainable development path. That is to say, tourists are born "liabilities" of environmental protection in tourist destinations, and tourists visiting scenic spots will inevitably cause damage to the ecological environment (Weaver and Lawton, 2011). Under this assumption, tourism managers can only resolve contradictions between environmental protection and tourism development by introducing restrictive regulations. However, in recent years, some research results in the fields of sociology, environmental psychology, consumer behavior and management have questioned this potential assumption. Because the results show that there are a group of tourists tend to have "pro-environment" behaviors. These tourists can spontaneously show their propensity of cherishing nature and promoting environmental protection in leisure and tourism activities (Dolnicar et al., 2008). They are willing to pay higher tourism costs for unspoiled natural scenic spots and even willing to actively promote the ecological environmental protection in tourist destinations through donations and voluntary activities (Li and Wu, 2020). Besides, tourism destinations can actively guide tourists to establish correct environmental attitudes and protection behaviors through measures such as improving reception facilities, creating environmental protection atmosphere and enhancing tourists' emotional attachment to scenic spots (Mair and Bergin-Seers, 2010). The above research progresses and findings lead tourism researchers to re-examine tourists' role and actions in the ecological protection of tourist destinations and make further exploration and research on tourists' pro-environmental behaviors.

Pro-environmental behaviors (PEB) refer to "Behaviors that harm the environment as little as possible, or even benefit the environment" (Steg and Vlek, 2009, p.309). Researchers believe that there is a "symbiotic relationship" between tourists with spontaneous environmental responsibility and the

ecological environment protection in tourist sites (Perkins and Brown, 2012). Therefore, if tourists can be guided to protect the environment spontaneously, they will no longer be the "burdens" but the "assets" of environmental protection in the tourist sites (Perkins and Brown, 2012).

In China, group tour has become the main form of tourism for tourists. The proportion of tourists who traveled abroad in groups in 2018 reached 55.24%, and 50.65% of the respondents said that they were willing to join a tour group in their future outbound travels (CTA, 2019). Group tour is still the mainstream form of outbound trips. Chinese tourists' habit of group tour with strangers over the past decades is turning into small and private group tours with family and friends (CTA, 2019). According to the report of Ctrip, domestic tours are characterized by small groups and private groups with personalization and themes (Ctrip, 2020). The proportion of small groups has exceeded 50%, of which 60% are family tourists with children or multiple generations. The number of private groups increased by 30% on a year-on-year basis, and the average number of team members dropped to 3.14 (Ctrip, 2020).

The data show that as opposed to individual tours of Western tourists, Chinese tourists prefer to travel in small groups with 3 or 4 persons. In the process of traveling in a group, individuals' thoughts and behaviors are usually affected by team members (Dolnicar et al., 2019). This is because people are only willing to act when they believe or see others have taken similar actions (Bernstein et al., 2018; Dolnicar et al., 2019; Tam and Chan, 2018). Thus, during the trip, tourists' behavior is not only driven by their own internal factors, but also affected by external interpersonal relationship. Therefore, in exploring the formation mechanism of Chinese tourists' pro-environmental behaviors, this study not only focuses on the influence of tourists' internal factors (Awareness of consequences, Ascription of responsibility and personal norms) but also considers the important influence of tourist-to-tourist interaction within the tour group (group norm, social trust and interpersonal ties) and other environmental contextual factors on the tourists' behaviors. This study can be a reference of tourists, employees as well as policymakers in tourism for guiding the further development of tourists' pro-environmental behaviors through thoroughly understanding tourists' environmental behaviors in China.

1.2 Problem Statement

The negative impacts of tourism activities include the destruction of environmental resources such as land degradation, air & noise pollution, traffic jams, littering and waste problems that have seriously threatens on the sustainable development of the local environment (Zhang et al., 2019). Intentional and unintentional travel behaviors of tourists may cause damages to the ecosystem of the scenic spots (Wang et al., 2020). For example, air pollution and noise pollution in tourist destinations are caused by the exhaust gas and noise of tourists' vehicles (Lang, 2018). A large number of tourists repeatedly

trample the soil and vegetation, leading to serious damage to the soil and vegetation (Zhang et al., 2019). Against such background, more and more tourism researchers begin to pay attention to the role of tourists and their actions in the ecological protection of tourist destinations, known as tourists' pro-environmental behaviors.

As an vital part in people's daily life, social interaction has a significant influence on their behaviors (Wolske et al., 2020). A vital core idea in Chinese traditional culture is "collective interest comes first", and even personal interest is given up for the collective good (Liu et al., 2021). This highly collectivistic culture encourages strong group harmony and group influence (Hofstede, 2001). Under this Chinese collective culture, the impact of fellow tourists becomes a key factor in urging Chinese tourists to take environmental actions (Lin et al., 2022; Teng et al., 2021). However, even though the interaction among tourists is recognized as one of the most positive contextual factors closely related to tourists' behaviors (Wang et al., 2019b; Dolnicar et al., 2019; Tam and Chan, 2018; Bernstein et al., 2018), it has always been ignored in recent studies on pro-environmental behaviors (Cho and Kang, 2017; Dolnicar et al., 2019; Landon et al., 2017). Since group tour is the most popular form of tourism for Chinese tourists (CTA, 2019), it is of significance to expand the research perspective of tourists' environmental behaviors from the individual level to the group level (Liu et al., 2019) and discuss the influence of the interpersonal interaction within the tourist group on tourists' pro-environmental behaviors (Lin et al., 2022; Xu, Yang and Lin, 2022; Wang et al., 2019b; Dolnicar et al., 2019) in China. Thus, this study has bridged the gap by identifying different factors of tourist-to-tourist interaction (group norm, interpersonal ties and social trust) so as to help improve tourists' PEBs.

Previous studies have demonstrated that interpersonal ties can greatly facilitate the spread of normative actions (Abrahamse and Steg, 2013), but in environmental studies, few studies can be found about the impact of interpersonal ties on enhancing the relationship between norms and behaviors. High levels of interpersonal interaction can help build a society that highlights social integration and norm compliance (Ostrom, 2000) because it stresses majority rules and weakens personal preferences, thereby reinforcing the impact of social norms on behaviors (Xu et al., 2022). Given the fundamental effect of interpersonal relationships on individual perceptions and behaviors (Hargreaves and Middlemiss, 2020), if the unique role of interpersonal contextual mechanisms is ignored, this may cover up the substantial dynamics of norm influences on behaviors (Xu et al., 2022), resulting in failed comprehensive understanding of the norm-PEB link boundary conditions (Wang et al., 2022; Yin et al., 2018). To fill in this gap, this study aims to investigate whether and how the interpersonal ties in tourist interactions moderate the relationship between norms and PEB, which will be a rich entry point for the research on PEB.

Environmental contextual factors, including the health of natural scenery, neatness of the main street and cleanliness of the public areas, have always

been the concern of different behavioral studies (Wang et al., 2019b). The unity of man and nature is a foundational value with far-reaching influence and a long history in traditional Chinese culture (Zhang et al., 2020a). Chinese people have long attached great importance to living in harmony with nature (Chan, 2001), meaning that Chinese people make different choices based on the surrounding situation (Zhang et al., 2020a). Hence, it is of great significance to explore the influence mechanism of environmental factors on the pro-environmental behavior of Chinese tourists. In the studies of PEB, however, most believe that individual factors are the most important (Chiang et al., 2019; Pearce et al., 2022; Sharma and Gupta, 2020) but ignore the impact of environmental factors on individual behaviors (Lu et al., 2021; Qin and Hsu, 2022; Wu et al., 2021b). So many scholars suggest that further exploration be made on how external and individual factors interact in pro-environmental behaviors (Qin and Hsu, 2022; Qiu et al., 2018a). And researchers suggest that in future research on PEBs, more contextual factors should be further investigated (Ertz et al., 2016; Lu et al., 2021; Wang et al., 2019b; Wang et al., 2018a). To fill in this gap, this thesis chooses environmental contextual factors as important contextual factors to explore their impact on tourists' PEBs.

NAM is regarded as the most influential theory in the environmental field (Han et al., 2019). Awareness of consequences (AC) and ascription of responsibility (AR) are considered to be the critical and essential determinants in the NAM for PEB (Gao et al., 2017). Yet, this is controversial between their relationships and personal norms (PN) (Li and Wu, 2019a; Sharma and Gupta, 2020), especially under the influence of fellow tourists. Chinese culture implicitly exerts enormous pressure on Chinese people by requiring group conformity and group coherence (Wang and Zhang, 2020a). Chinese are intended to follow the thoughts and behaviors of influential people around as their reference to think and behave (Teng et al., 2021). When travelling in groups, tourists may be vulnerable to the different environmental perspectives of team members, which may challenge their own environmental thinking and actions (Macias and Nelson, 2011). Therefore, it is very important to explore the relationship between AC, AR, PN and PEB (Gao et al., 2017; Li and Wu, 2019a; Onwezen et al., 2013) in the context of social interaction. Some scholars found that PN can regulate the relationship between AR and PEB, AC and PEB (Kiatkawsin and Han, 2017; Setiawan et al., 2021; Sharma and Gupta, 2020), but others were convinced that PN has proven not to be a mediator in the relationship between AC and PEB (Gao et al., 2017; Li and Wu, 2019a; Onwezen et al., 2013). Consequently, this study is designed to fill in the research gap by examining the mediating effect of PN in the relationship between AC, AR, and PEB based on the norm activation theory to develop the logical connotation of NAM from the perspective of social interaction.

As an important mediator, though personal norm is frequently studied to explore its mediating effect on the relationship between various norm elements and pro-environmental behaviors (Doran and Larsen, 2016; Han et al., 2018c; Kim and Seock, 2019), the influence of normative compliance still lacks researches and understanding (Bicchieri et al., 2020) in the different contexts of environmental

behaviors (Cialdini and Jacobson, 2021). The personal norm that plays an important mediator in NAM from the perspective of social interaction is still far from being thoroughly studied (Qiu et al., 2018a; Landon et al., 2017), especially the relationship of the norm-behavior relationship within the tourist group in China. Therefore, this study has provided a novel perspective on studying the mediating effect of personal norms with group norms as an independent variable and pro-environmental behaviors as a dependent variable in NAM under the context of tourist interaction.

The research on pro-environmental behaviors (PEB) has attracted great attention of Western scholars, but tourists' PEB in China fails to receive enough attention (Qiu et al., 2018b). Therefore, PEB in China's tourism situation needs further research (Li and Li, 2018). Furthermore, many scholars in China apply the scales and findings of foreign scholars directly (Cai and Zhu, 2021; Qiu and Zhou, 2017; Zhou et al., 2014), without considering the uniqueness of Chinese tourists (such as the prohibition of demonstrations, election of candidates with environmental commitments, and participation in public assemblies). Based on this, relevant research conclusions may not have the same explanatory power in the Chinese context (Li, 2015), which may lead to incorrect experimental results and research conclusions (Qiu et al., 2018b). Because of this, this thesis has studied the tourists' pro-environmental behaviors in the context of China based on the PEB measurements of Chinese tourists.

To short, this study expands the Norm Activation Model (NAM) from the perspective of tourist interaction and environmental context to fill in these gaps. Through exploring how the tourist-to-tourist interaction and environmental contextual factors affect tourists' PEB in the context of China, it can provide a more comprehensive explanation for tourists' PEB decision-making and a feasible direction in Chinese tourism managers guiding tourists' PEB.

1.3 Scope of the Study

This quantitative study explores the influence of tourist-to-tourist interaction (group norms, interpersonal ties and social trust) and environmental contextual factors on tourists' pro-environmental behaviors. Dependent variables are tourists' pro-environmental behaviors and independent ones are group norms, social trust, environmental contextual factors, ascription of responsibility and awareness of consequences. Mediating variables mainly include ascription of responsibility and personal norms, while moderating ones include interpersonal ties which have moderating effect on the relationship between group norms and pro-environmental behaviors.

The contents discussed in the previous sections have emphasized the importance of tourists' pro-environmental behaviors in China. West Lake Scenic Area in Hangzhou, China is the object of this study because it is one of the most

popular tourist attractions boasting all kinds of tourism resources that can meet different needs of Chinese tourists. Now it is confronted with serious environmental problems mainly caused by the unfriendly behaviors of tourists (Sun and Liu, 2020). Since tourist sites in China are facing serious environmental problems, this study concentrates on improving Chinese tourists' pro-environmental behaviors to protect the environment.

As discussed above, the influence from fellow tourists under the Chinese collective culture is a key factor in promoting Chinese tourists to take actions to protect the local tourism environment (Teng et al., 2021). Since group tour is the most popular form of tourism of Chinese tourists (CTA, 2020), it is important to explore the influence of the interpersonal interaction within the tourist group on tourists' pro-environmental behaviors (Wang et al., 2019a; Xu et al., 2022) in China. Given this, this study discusses the influence of tourist-to-tourist interaction on the tourists' pro-environmental behaviors in China. In this study, tourist samples are selected using the purposive sampling technique. Chinese tourists traveling with companions for more than two days in the past year and understanding the survey questions will be selected as the respondents. It is usually considered that at least two days of travel duration is required to judge the influence of tourist-to-tourist interaction on tourists' pro-environmental behaviors (Yan, 2017). The respondents are a group of Chinese tourists traveling with their companions in the West Lake Scenic Area in China with the travel duration of more than two days.

Data are collected through a survey in thesis questionnaire form, which consists of eight instruments to determine the dependent, independent, moderating, and mediating variables, and some demographic-based questions. This study is a cross-sectional-based to better investigate the impact of human interaction and physical environment on pro-environmental behaviors and focus on tourists' behaviors in a given time slot. The data analysis is performed by SEM-PLS and the results have a potential value for Chinese government departments and managers of Chinese tourist attractions to provide them with helpful information in managing and guiding tourists' environmental behaviors. Therefore, this study investigates the tourists in a representative tourist attraction in China: West Lake Tourist Scenic Area.

1.4 Research Questions

To better understand the influence of tourist-to-tourist interaction (group norm, social trust and interpersonal ties) and environmental contextual factors on Chinese tourists' pro-environmental behaviors, this study presents the following questions:

1. Do group norm, social trust, personal norm and environmental contextual factors affect pro-environmental behaviors?

2. Do Awareness of consequences and Ascription of responsibility affect personal norms?
3. Does Ascription of responsibility regulate the relationship between awareness of consequences and personal norms?
4. Do personal norms regulate the relationship between group norms and pro-environmental behaviors?
5. Do personal norms regulate the relationship between ascription of responsibility and pro-environmental behaviors?
6. Do interpersonal ties moderate the relationship between group norms and pro-environmental behaviors?

1.5 Research Objectives

The main objective is to analyze the influence of tourist-to-tourist interaction (group norms, social trust and interpersonal ties) and environmental contextual factors on Chinese tourists' pro-environmental behaviors, as follows:

1. To evaluate the influence of group norms, social trust, personal norm and environmental contextual factors on pro-environmental behaviors.
2. To examine the influence of Awareness of consequences and ascription of responsibility on personal norms.
3. To determine the mediating role of Ascription of responsibility in the relationship between awareness of consequences and personal norms.
4. To determine the mediating role of personal norms in the relationship between group norms and pro-environmental behaviors.
5. To determine the mediating role of personal norms in the relationship between ascription of responsibility and pro-environmental behaviors.
6. To investigate the moderating role of interpersonal ties in the relationship between group norms and pro-environmental behaviors.

1.6 Significance

This study has contributed both theoretically and practically to this study of PEB, with detailed contributions described in the following parts:

1.6.1 Theoretical Significance

The theoretical significance of this study mainly lies in the theoretical application and the integration of interdisciplinary theories as shown in the following five aspects:

First, it provides a new perspective of social interaction to study the driving factors of tourists' pro-environmental behaviors (PEB). Most studies on PEB are centered around internal factors (Han et al., 2017a; Miller et al., 2018), and usually ignore external factors such as the social interaction (Cho and Kang, 2017; Dolnicar et al., 2019). This study has introduced a new perspective of tourist interaction into the research of tourists' PEB. On one part, it discusses this influence on tourists' PEB in terms of relational level (interpersonal ties), collective level (group norms), and generalized level (social trust); on the other part, it integrates the two perspectives of "interaction" and "normalization" by combining the social capital theory with NAM model theory. In this way, the factors that affect the internal decision-making mechanism of tourists have been discussed from the perspective of "relationship level" and the theoretical research on the influence of social interaction on tourists' PEB thus enriched.

Second, enriches the research on the impact of environmental contextual factors on PEBs. At present, the studies on tourists' PEB mainly focus on tourists' internal factors to the neglect of the impact of environmental factors of tourist attractions on tourists' PEB (Lu et al., 2021; Qin and Hsu, 2022; Wu et al., 2021b). Since the environmental contextual factors are an essential part of the scenic spots, the environmental conditions around an individual may positively affect his/her environmental behaviors (Jamme et al., 2018; Liu et al., 2019; Zhou et al., 2017). Through incorporating the environmental contextual factors into tourists' PEB and integrating the broken window theory with the NAM, this study has assessed the positive effects of environmental contextual factors on tourists' PEBs in an empirical way, which is of significance to provide a more comprehensive explanation for tourists' PEBs.

Third, the norm-behavior gap is further studied by introducing moderator-interpersonal ties and mediator-personal norms. Previous studies have demonstrated that interpersonal ties can greatly facilitate the spread of normative actions (Abrahamse and Steg, 2013), but limited environmental studies are aimed at the impact of interpersonal ties on enhancing the relationship between norms and behaviors. Personal norm is often shown to

partially mediate the relationship between norms and pro-environmental behaviors, but from the angle of social interaction it is still far from being thoroughly studied (Qiu et al., 2018a; Landon et al., 2017). This study provides a holistic view in studying the group norms and pro-environmental behaviors under the backdrop of studies in China by looking at potential tourist interaction factors, the moderating effect of interpersonal ties and the mediating effect of personal norms which have been rarely studied before.

Fourth, develops the logical connotation of NAM. Awareness of consequences and ascription of responsibility are considered to be the essential determinants in the NAM for pro-environmental behaviors (Gao et al., 2017). However, this is controversial about their relationship with personal norms (Li and Wu, 2019a; Sharma and Gupta, 2020) within the tour group. This study further explores the relationship between personal norm, awareness of consequences and ascription of responsibility in the context of Chinese tourist groups. It thus enriches the environmental research perspective and broadens NAM logical connotation and application context from social interaction, which is provided with specific significance in theoretical development and interdisciplinary theory fusion research.

Finally, enriches the theoretical research of tourists' PEB in China. The research on PEB has lured much attention from Western researchers. While tourists' pro-environmental behaviors in China has not received enough attention (Qiu et al., 2018b). Some measurements of PEB fail to meet China's national conditions (He et al., 2017; Li, 2015). Therefore, this thesis studies the tourists' PEB in the context of China by applying the measurements of PEB based on the characteristics of Chinese tourists. It can provide a new research model to explain the tourists' environmental behaviors in China and a new theoretical and comprehensive perspective for this study of Chinese tourism.

1.6.2 Practical Significance

On a practical level, this thesis focuses on cultivating and inspiring tourists' spontaneous pro-environmental behaviors. The study on this practical problem is helpful in promoting the sustainable development of China's tourism.

First, it provides a direction in destination managers cultivating tourists' pro-environmental behaviors (PEB) in tourist interaction. The present studies mainly focus on tourists' individual factors, and the corresponding practical countermeasures are primarily designed from the driving factors to improve tourists' PEB. However, this has neglected the influence of other tourists on some tourists' PEB and the path and mechanism of these interactive subjects' impact. This study aims to explore the mechanism of tourist interaction on the PEB of Chinese tourists and the internal mechanism of cognitive psychology that influences tourists in implementing PEB by interpersonal relationships, group

norms and interpersonal trust. Moreover, it provides a knowledge base and practical reference for tourism managers to cultivate and stimulate tourists' spontaneous environmental protection behaviors relying on innovative management strategies such as tourist relationship management, group normative intervention, and environmental protection atmosphere cultivation.

Second, provides some suggestions on the destination managers in guiding tourists' PEB by improving the environmental contextual factors. According to the broken window theory, a good environmental condition can discourage peoples' inappropriate behaviors and protect the environment (Weele et al., 2017). Environmental factors can strongly affect people's behaviors and make them behave in a specific way (Wilson and Kelling, 1982). This study explores the mechanism of environmental contextual factors on the tourists' PEB as well as the driving mechanism of cognitive psychology that influences tourists in implementing PEB. This has provided a practical direction for tourism destination managers to develop corresponding environmental protection measures based on the environmental quality of scenic spot break the window-breaking effect, and cultivate the environmental behavior of tourists from the perspective of the environmental contextual factors.

Finally, provides a knowledge base for the intervention of Chinese government in tourists' PEB. The majority original ideas of the existing behavior policies of tourism environment originate in the theoretical research of Western scholars (Qiu et al., 2018b). However, the Western research findings on which these policies rely cannot always correctly explain the environmental behavior of Chinese tourists (He et al., 2017; Li, 2015). Therefore, taking Chinese tourists as the survey object, in this study, NAM is used as the theoretical basis to deeply study the internal driving mechanism of Chinese tourists' pro-environmental behaviors. Besides, the impact of problem consequences, environmental responsibility, and personal norms on tourists' environmental behaviors is analyzed. The results show that this study can provide a practical basis for Chinese tourism policymakers to formulate localized governance mechanisms of pro-environmental behaviors.

1.7 Definitions of Key Terms

Totally 11 key terms have been used in this thesis. Definitions of these key terms are adopted from early researchers. See Table 1.1 for the detailed definitions.

Table 1.1: Definitions of the terms

No	Construct	Definition	Source
1	Awareness of consequences	"Beliefs that environmental conditions pose threats to other people, other species, or the biosphere."	Stern et al., 1999, p. 85
2	Ascription of responsibility	"Actions they (individuals) initiate could avert those (negative)consequences."	Stern et al., 1999, p. 85
3	Personal norm	"Feelings of moral obligation for environmental preservation."	Schwartz and Howard, 1981, p. 191
4	Pro-environmental behavior	"Behavior that harms the environment as little as possible, or even benefits the environment."	Steg and Vlek, 2009, p.309
5	Tourist-to-Tourist Interaction	"The information exchange process between tourists through direct or indirect communication under the same tourism situation."	J. Huang, 2017, p. 13
6	Social capital	"Features of social organization, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated action."	Putnam, 1992, p.167
7	Interpersonal ties	"A presence of ongoing interpersonal networks, how members in a network relate to each other."	Cho and Kang, 2017, p. 287
8	Group norm	"A shared perception of social norms guiding what each member is supposed to feel obligated to do or not to do."	Cho and Kang, 2017, p. 287
10	Social trust	"Individuals' expectations of other members of society to act and behave in a way that is beneficial to these individuals or at least not detrimental to them."	Kwon, 2019, p.19
11	Environmental contextual factors	"Environmental situation of tourist site includes the health of the natural scenery, the neatness of the main street and the cleanliness of the public areas."	Wang et al., 2019b, 2019, p. 815

1.8 Organization of this thesis

For easy reading, this thesis is divided into six chapters. In Chapter 1, the research background, problem statement, questions, purpose, significance and scope of this study are introduced. Chapter 2 offers a literature review of some essential concepts, such as the theoretical literature of tourists' pro-environmental behaviors and tourist-to-tourist interaction. Chapter 3 outlines the conceptual framework of the research and proposes research hypotheses. Chapter 4 introduces the research methods and tools to analyze the data and Chapter 5 discusses the results of the data analysis. Finally, Chapter 6 summarizes the main findings, discussion, limitations, and conclusions.

1.9 Conclusion

This Chapter introduces this study background, highlights the problem statement, and lists the scope, purpose, questions and significance of this study. The last part discusses the definitions of the variables used in the thesis. The next chapter introduces some important literature reviews used to form this research framework.

REFERENCES

- Abrahamse, W., & Steg, L. (2009). How do socio-demographic and psychological factors relate to households' direct and indirect energy use and savings? *Journal of Economic Psychology*, 30(5), 711-720
- Abrahamse, W., & Steg, L. (2013). Social influence approaches to encourage resource conservation: A meta-analysis. *Global Environmental Change*, 23(6), 1773-1785
- Adam, I. (2021). Negative tourist-to-tourist interactions, value destruction, satisfaction, and post consumption behavioral intention. *Journal of Destination Marketing & Management*, 20, 100557
- Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. *Action Control: From Cognition to Behavior*, 11-39
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211
- Ajzen, I. (2002). Perceived Behavioral Control, Self - Efficacy, Locus of Control, and the Theory of Planned Behavior. *Journal of Applied Social Psychology*, 32, 665-683
- Altınay, L., Song, H., Madanoğlu, M., & Wang, X. L. (2019). The influence of customer-to-customer interactions on elderly consumers' satisfaction and social well-being. *International Journal of Hospitality Management*, 78, 223-233
- Anderson, J. C., & Gerbing, D. W. (1988). Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach. *Psychological Bulletin*, 103(3), 411-423
- Andersson, K. P., Cook, N. J., Grillos, T., Lopez, M. C., Salk, C. F., Wright, G. D., & Mwangi, E. (2018). Experimental evidence on payments for forest commons conservation. *J. Nature Sustainability*, 1(3), 128-135
- Ando, K., Ohnuma, S., & Chang, E. C. (2007). Comparing normative influences as determinants of environmentally conscious behaviours between the USA and Japan. *Asian Journal of Social Psychology*, 10(3), 171-178
- Astrachan, C. B., Patel, V. K., & Wanzenried, G. (2014). A comparative study of CB-SEM and PLS-SEM for theory development in family firm research. *Journal of Family Business Strategy*, 5(1), 116-128
- Axelrod, L. J., & Lehman, D. R. (1993). Responding to environmental concerns: What factors guide individual action? *Journal of Environmental Psychology*, 13(2), 149-159

- Bailey, J. E., & Pearson, S. W. (1983). Development of a Tool for Measuring and Analyzing Computer User Satisfaction. *Management Science*, 29(5), 530-545
- Bamberg, S., & Möser, G. (2007). Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour. *Journal of Environmental Psychology*, 27(1), 14-25
- Bamberg, S., & Schmidt, P. (2003). Incentives, morality, or habit? Predicting students' car use for University routes with the models of Ajzen, Schwartz, and Triandis. *Environment and Behavior*, 35(2), 264-285
- Bergquist, M., Nilsson, A., & Schultz, W. P. (2019). A meta-analysis of field-experiments using social norms to promote pro-environmental behaviors. *Global Environmental Change*, 59
- Bernstein, M. J., Zawadzki, M. J., Juth, V., Benfield, J. A., & Smyth, J. M. (2018). Social interactions in daily life: Within-person associations between momentary social experiences and psychological and physical health indicators. *Journal of Social and Personal Relationships*, 35(3), 372-394
- Bicchieri, C., Dimant, E., & Gächter, S. (2020). Observability, social proximity, and the erosion of norm compliance. *Games and Economic Behavior*, 132, 59-72
- Bimonte, S., Bosco, L., & Stabile, A. (2020). Nudging pro-environmental behavior: evidence from a web experiment on priming and WTP. *Journal of Environmental Planning Management*, 63(4), 651-668
- Black, J. S., Stern, P. C., & Elworth, J. T. (1985). Personal and Contextual Influences on Household Energy Adaptations. *Journal of Applied Psychology*, 70(1), 3-21
- Borden, R. J., & Francis, J. L. (1978). Who cares about ecology? Personality and sex differences in environmental concern. *J Pers*, 46(1), 190-203
- Borden, R. J., & Schettino, A. P. (1979). Determinants of Environmentally Responsible Behavior. *The Journal of Environmental Education*, 10(4), 35-39
- Borsari, B., & Carey, K. B. (2003). Descriptive and injunctive norms in college drinking: a meta-analytic integration. *J Stud Alcohol*, 64(3), 331-341
- Botetzagias, I., Dima, A.-F., & Malesios, C. (2015). Extending the Theory of Planned Behavior in the context of recycling: The role of moral norms and of demographic predictors. *Resources, Conservation and Recycling*, 95, 58-67

- Brunie, A. (2009). Meaningful distinctions within a concept: Relational, collective, and generalized social capital. *Social Science Research*, 38(2), 251-265
- Bryman, A. (2012). *Social research methods* (Fourth Edition ed.). Oxford: Oxford University Press.
- Caferra, R., Colasante, A., & Morone, A. (2021). The less you burn, the more we earn: The role of social and political trust on energy-saving behaviour in Europe. *Energy Research & Social Science*, 71, 101812
- Cai, L., & Zhu, X. (2021). Does tourist-environment fit affect environmental responsibility behavior?—Intermediate with unforgettable travel experience and place attachment. *Tourism Journal*, 36(07), 119-131
- Cao, H., Li, F., Zhao, K., Qian, C., & Xiang, T. (2022). From value perception to behavioural intention: Study of Chinese smallholders' pro-environmental agricultural practices. *Journal of Environmental Management*, 315, 115179
- Casaló, L. V., & Escario, J. J. (2018). Heterogeneity in the association between environmental attitudes and pro-environmental behavior: A multilevel regression approach. *Journal of Cleaner Production*, 175, 155-163
- Casten, J. A., & Payne, B. K. (2008). The influence of perceptions of social disorder and victimization on business owners' decisions to use guardianship strategies. *Journal of Criminal Justice*, 36(5), 396-402
- Chan, H. W. (2020). When do values promote pro-environmental behaviors? Multilevel evidence on the self-expression hypothesis. *Journal of Environmental Psychology*, 71
- Chan, R. Y. K. (2001). Determinants of Chinese consumers' green purchase behavior. *Psychology and Marketing*, 18(4), 389-413
- Chekima, B., Chekima, K., & Chekima, K. (2019). Understanding factors underlying actual consumption of organic food: The moderating effect of future orientation. *J. Food quality preference*, 74, 49-58
- Cheng, T. M., & Wu, H. C. (2015). How do environmental knowledge, environmental sensitivity, and place attachment affect environmentally responsible behavior? An integrated approach for sustainable island tourism. *Journal of Sustainable Tourism*, 23(4), 557-576
- Chiang, Y.-T., Fang, W.-T., Kaplan, U., & Ng, E. (2019). Locus of Control: The Mediation Effect between Emotional Stability and Pro-Environmental Behavior. 11(3), 820
- Chin, W. W. (1988). The Partial Least Squares Approach to Structural Equation Modeling. *Modern Methods for Business Research*, 295(2), 295-336

- Cho, S., & Kang, H. (2017). Putting behavior into context: Exploring the contours of social capital influences on environmental behavior. *J. Environment Behavior, 49*(3), 283-313
- Cho, Y. N., Thyroff, A., Rapert, M. I., Park, S. Y., & Lee, H. J. (2013). To be or not to be green: Exploring individualism and collectivism as antecedents of environmental behavior. *Journal of Business Research, 66*(8), 1052-1059
- Choi, H., Jang, J., & Kandampully, J. (2015). Application of the extended VBN theory to understand consumers' decisions about green hotels. *International Journal of Hospitality Management, 51*, 87-95
- Cialdini, R. B., & Jacobson, R. P. (2021). Influences of social norms on climate change-related behaviors. *Current Opinion in Behavioral Sciences, 42*, 1-8
- Claridge, T. J. S. c. r. (2018). Functions of social capital—bonding, bridging, linking. *20*, 1-7
- Clark, C. F., Kotchen, M. J., & Moore, M. R. (2003). Internal and external influences on pro-environmental behavior: Participation in a green electricity program. *Journal of Environmental Psychology, 23*(3), 237-246
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (Second Edition ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*(SUPPL.), S95-S120
- Coleman, J. S. (1990). Rational Organization. *Rationality and Society, 2*(1), 94-105
- Collado, S., Staats, H., & Sancho, P. (2019). Normative Influences on Adolescents' Self-Reported Pro-Environmental Behaviors: The Role of Parents and Friends. *Environment and Behavior, 51*(3), 288-314
- Collins, J., & Hussey, R. (2003). *Business research. A practical guide for undergraduate and postgraduate students.* New York: Polgrave Macmillan.
- Coltman, T., Devinney, T. M., Midgley, D. F., & Venaik, S. (2008). Formative versus reflective measurement models: Two applications of formative measurement. *Journal of Business Research, 61*(12), 1250-1262
- Cordano, M., Welcomer, S., Scherer, R. F., Pradenas, L., & Parada, V. (2011). A Cross-Cultural Assessment of Three Theories of Pro-Environmental Behavior: A Comparison Between Business Students of Chile and the United States. *Environment and Behavior, 43*(5), 634-657
- Corrado, L., Fazio, A., & Pelloni, A. (2022). Pro-environmental attitudes, local environmental conditions and recycling behavior. *Journal of Cleaner Production, 362*, 132399

- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage publications.
- CTA. (2019). 2019 Annual Report on China's Outbound Tourism Development. Retrieved April 6, 2021 <http://eng.ctaweb.org.cn/ctaen/c09/202103/9189e906cd044e0ebcd388693e7fb6ff.shtml>
- Ctrip. (2020). "Small and Beautiful" New Era: 2020 Domestic Travel New Group Consumption Report. <https://inf.news/en/news/287e3d2f4c2d8948ee1b355b57134f18.html>
- De Groot, J., & Steg, L. (2009). Morality and prosocial behavior: The role of awareness, responsibility, and norms in the norm activation model. *Journal of Social Psychology, 149*(4), 425-449
- de Groot, J. I. M., Bondy, K., & Schuitema, G. (2021). Listen to others or yourself? The role of personal norms on the effectiveness of social norm interventions to change pro-environmental behavior. *Journal of Environmental Psychology, 78*, 101688
- de Leeuw, A., Valois, P., Ajzen, I., & Schmidt, P. (2015). Using the theory of planned behavior to identify key beliefs underlying pro-environmental behavior in high-school students: Implications for educational interventions. *Journal of Environmental Psychology, 42*, 128-138
- Dhivyadeepa, E. (2015). *Sampling Techniques in Educational Research*. United States: Laxmi Book Publication Solapur.
- Diamantopoulos, A., & Siguaw, J. A. (2006). Formative Versus Reflective Indicators in Organizational Measure Development: A Comparison and Empirical Illustration. *17*(4), 263-282
- Dimitrov, D. M. (2014). *Statistical methods for validation of assessment scale data in counseling and related fields*: John Wiley & Sons.
- Dolnicar, S., Crouch, G. I., & Long, P. (2008). Environment-friendly tourists: What Do we really know about them? *Journal of Sustainable Tourism, 16*(2), 197-210
- Dolnicar, S., Knezevic Cvelbar, L., & Grün, B. (2019). A Sharing-Based Approach to Enticing Tourists to Behave More Environmentally Friendly. *Journal of Travel Research, 58*(2), 241-252
- Doran, R., & Larsen, S. (2016). The Relative Importance of Social and Personal Norms in Explaining Intentions to Choose Eco-Friendly Travel Options. *International Journal of Tourism Research, 18*(2), 159-166
- Dubos, R. (2017). *Social capital: Theory and research*: Routledge.

- Dunlap, R. E., & Van Liere, K. D. (1978). The "new environmental paradigm". *Journal of Environmental Education*, 9(4), 10-19
- Edwards, J. R. (2001). Multidimensional Constructs in Organizational Behavior Research: An Integrative Analytical Framework. 4(2), 144-192
- Ellemers, N., Van Der Toorn, J., Paunov, Y., & Van Leeuwen, T. (2019). The psychology of morality: A review and analysis of empirical studies published from 1940 through 2017. *J. Personality Social Psychology Review*, 23(4), 332-366
- Eom, K., Kim, H. S., Sherman, D. K., & Ishii, K. (2016). Cultural Variability in the Link Between Environmental Concern and Support for Environmental Action. *Psychological Science*, 27(10), 1331-1339
- Ertz, M., Karakas, F., & Sarigöllü, E. (2016). Exploring pro-environmental behaviors of consumers: An analysis of contextual factors, attitude, and behaviors. *Journal of Business Research*, 69(10), 3971-3980
- Ertz, M., & Sarigollu, E. (2019). The Behavior-Attitude Relationship and Satisfaction in Proenvironmental Behavior. *Environment and Behavior*, 51, 1106-1132
- Esfandiar, K., Dowling, R., Pearce, J., & Goh, E. (2021). What a load of rubbish! The efficacy of theory of planned behaviour and norm activation model in predicting visitors' binning behaviour in national parks. *Journal of Hospitality & Tourism Research*, 46, 304-315
- Evans, A. M., & Revelle, W. (2008). Survey and behavioral measurements of interpersonal trust. *Journal of Research in Personality*, 42(6), 1585-1593
- Farani, A. Y., Mohammadi, Y., & Ghahremani, F. (2019). Modeling farmers' responsible environmental attitude and behaviour: a case from Iran. *Environmental Science and Pollution Research*, 26
- Farrow, K., Grolleau, G., & Ibanez, L. (2017). Social Norms and Pro-environmental Behavior: A Review of the Evidence. *Ecological Economics*, 140, 1-13
- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39(2), 175-191
- Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research*: Addison-Wesley Publishing Company.
- Fornell, C., & Cha, J. (1994). Partial Least Squares. *Advanced Methods of Marketing Research*, 407, 52-78.

- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382-388
- Fujii, S., Kitamura, R., & Suda, H. (2004). Contingent valuation method can increase procedural justice. *Journal of Economic Psychology*, 25(6), 877-889
- Gao, J., Huang, Z., & Zhang, C. (2017). Tourists' perceptions of responsibility: an application of norm-activation theory. *Journal of Sustainable Tourism*, 25(2), 276-291
- Garson, G. D. (2016). *Partial Least Squares Regression and Structural Equation Models: 2016 Edition (Statistical Associates Blue Book Series 10)*: Statistical Associates Publishers.
- Gartner, W. C. (1996). *Tourism Development: Principles, Processes, and Policies*: Van Nostrand Reinhold.
- Geiger, J. L., Steg, L., van der Werff, E., & Ünal, A. B. (2019). A meta-analysis of factors related to recycling. *Journal of Environmental Psychology*, 64, 78-97
- Geller, E. S. (1995). Actively caring for the environment: An integration of behaviorism and humanism. *Environment and Behavior*, 27(2), 184-195
- Gessner, V. (2008). Contractual certainty in international trade: empirical studies and theoretical debates on institutional support for global economic exchanges. *Eur. J. Law Econ.*, 30(1), 75-76
- Gkargkavouzi, A., Halkos, G., & Matsiori, S. (2019). Environmental behavior in a private-sphere context: Integrating theories of planned behavior and value belief norm, self-identity and habit. *Resources, Conservation and Recycling*, 148, 145-156
- Glass, G. V., & Hopkins, K. D. (1996). *Statistical Methods in Education and Psychology* (3rd edition ed.): Pearson Allyn & Bacon.
- Göckeritz, S., Schultz, P. W., Rendón, T., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2010). Descriptive normative beliefs and conservation behavior: The moderating roles of personal involvement and injunctive normative beliefs. *European Journal of Social Psychology*, 40(3), 514-523
- Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. : Harvard University Press.
- Goldberg, M. H., Gustafson, A., & Van Der Linden, S. J. O. E. (2020). Leveraging social science to generate lasting engagement with climate change solutions. 3(3), 314-324

- Grafton, R. Q., & Knowles, S. (2004). Social capital and national environmental performance: a cross-sectional analysis. *The Journal of Environment Development and Change*, 13(4), 336-370
- Grankvist, G., & Biel, A. J. J. o. e. p. (2001). The importance of beliefs and purchase criteria in the choice of eco-labeled food products. 21(4), 405-410
- Grimmer, M., Kilburn, A. P., & Miles, M. P. (2016). The effect of purchase situation on realized pro-environmental consumer behavior. *Journal of Business Research*, 69(5), 1582-1586
- Guan, X., Wang, D., & Jason Cao, X. (2020). The role of residential self-selection in land use-travel research: a review of recent findings. *Transport Reviews*, 40(3), 267-287
- Guo, Q. H., Li, H., & Li, S. P. (2019). Analysis of the Influence of Personal Norms on Farmers' Pro-environmental Behavior—Based on the Extended Norm Activation Theoretical Framework. *Resources and Environment in the Yangtze River Basin*, 28(05), 176–184
- Hair, J., Gabriel, M., & Patel, V. (2014a). AMOS Covariance-Based Structural Equation Modeling (CB-SEM): Guidelines on its Application as a Marketing Research Tool. *Revista Brasileira de Marketing*, 13, 44-55
- Hair, J. F., Black, W. C., & Babin, B. J. (2010). *Multivariate Data Analysis: A Global Perspective*: Pearson Education.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014b). *Multivariate data analysis* (Vol. null).
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*: SAGE Publications.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139-152
- Halpenny, E. A. (2010). Pro-environmental behaviours and park visitors: The effect of place attachment. *Journal of Environmental Psychology*, 30(4), 409-421
- Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior. *Tourism Management*, 47, 164-177
- Han, H., Hwang, J., Kim, J., & Jung, H. (2015a). Guests' pro-environmental decision-making process: Broadening the norm activation framework in a lodging context. *International Journal of Hospitality Management*, 47, 96-107

- Han, H., Hwang, J., Kim, J., & Jung, H. (2015b). Guests' pro-environmental decision-making process: Broadening the norm activation framework in a lodging context. *International Journal of Hospitality Management*, 47, 96-107
- Han, H., Hwang, J., & Lee, M. J. (2017a). The value–belief–emotion–norm model: investigating customers' eco-friendly behavior. *Journal of Travel and Tourism Marketing*, 34(5), 590-607
- Han, H., Hwang, J., Lee, M. J., & Kim, J. (2019). Word-of-mouth, buying, and sacrifice intentions for eco-cruises: Exploring the function of norm activation and value-attitude-behavior. *Tourism Management*, 70, 430-443
- Han, H., & Hyun, S. S. (2017). Drivers of customer decision to visit an environmentally responsible museum: merging the theory of planned behavior and norm activation theory. *Journal of Travel and Tourism Marketing*, 34(9), 1155-1168
- Han, H., Kim, W., & Lee, S. (2018a). Stimulating visitors' goal-directed behavior for environmentally responsible museums: Testing the role of moderator variables. *Journal of Destination Marketing & Management*, 8, 290-300
- Han, H., Lee, M. J., & Kim, W. (2018b). Promoting towel reuse behaviour in guests: A water conservation management and environmental policy in the hotel industry. *Business Strategy and the Environment*, 27(8), 1302-1312
- Han, H., Meng, B., & Kim, W. (2017b). Emerging bicycle tourism and the theory of planned behavior. *Journal of Sustainable Tourism*, 25(2), 292-309
- Han, H., Yu, J., Kim, H.-C., & Kim, W. (2018c). Impact of social/personal norms and willingness to sacrifice on young vacationers' pro-environmental intentions for waste reduction and recycling. *Journal of Sustainable Tourism*, 26(12), 2117-2133
- Hargreaves, T., & Middlemiss, L. (2020). The importance of social relations in shaping energy demand. *Nature Energy*, 5(3), 195-201
- Harland, P., Staats, H., & Wilke, H. A. M. (2007). Situational and personality factors as direct or personal norm mediated predictors of pro-environmental behavior: Questions derived from norm-activation theory. *Basic and Applied Social Psychology*, 29(4), 323-334
- Hayes, A. F. (2013). *Introduction to Mediation, Moderation, and Conditional Process Analysis: A Regression-Based Approach*: Guilford Publications.
- He, X., & Zhan, W. (2018). How to activate moral norm to adopt electric vehicles in China? An empirical study based on extended norm activation theory. *Journal of Cleaner Production*, 172, 3546-3556

- He, X. H., Hu, D. B., & Su, L. J. (2017). Research progress and enlightenment on environmental responsibility behavior of overseas tourists. *Tourism Tribune*, 32(9), 57-69
- He, X. H., Hu, D. B., Swanson, S. R., Su, L. J., & Chen, X. H. (2018). Destination perceptions, relationship quality, and tourist environmentally responsible behavior. *Tourism Management Perspectives*, 28, 93-104
- Heinonen, K., Jaakkola, E., & Neganova, I. (2018). Drivers, types and value outcomes of customer-to-customer interaction. *Journal of Service Theory and Practice*, 28(6), 710-732
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135
- Hertzog, M. A. (2008). Considerations in determining sample size for pilot studies. *31(2)*, 180-191
- Hines, J. M., Hungerford, H. R., & Tomera, A. N. (1987). Analysis and synthesis of research on responsible environmental behavior: A meta-analysis. *Journal of Environmental Education*, 18(2), 1-8
- Hofstede, G. (2001). Culture's consequences: Comparing values, behaviors, institutions and organizations across nations. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations*
- Hua, Y., Dong, F., & Goodman, J. (2021). How to leverage the role of social capital in pro-environmental behavior: A case study of residents' express waste recycling behavior in China. *Journal of Cleaner Production*, 280, 124376
- Huang, J. (2017). A study on the relationship between tourist interaction, experience value and behavior intentions in entertainment theme parks. (Master thesis), Zhejiang University of Technology,
- Huang, J., & Hsu, C. H. (2010). The impact of customer-to-customer interaction on cruise experience and vacation satisfaction. *Journal of Travel Research*, 49(1), 79-92
- Huang, Y. (2014). Study on the relationship among interaction, experience value and satisfaction among tourists in ancient towns. (Doctoral thesis), Zhejiang University,
- Hwang, D. (2008). *Community-based action to influence tourism development*. University of Illinois at Urbana-Champaign,
- Hwang, D., & Stewart, W. P. (2016). Social Capital and Collective Action in Rural Tourism. *Journal of Travel Research*, 56(1), 81-93

- Imran, S., Alam, K., & Beaumont, N. (2014). Environmental orientations and environmental behaviour: Perceptions of protected area tourism stakeholders. *Tourism Management*, 40, 290-299
- IQAir. (2019). 2019 world air quality report: Region & City PM2.5 Ranking (Publication no. <https://www.iqair.com/world-most-polluted-cities/world-air-quality-report-2019-en.pdf>).
- IQAir. (2020). 2020 world air quality report: Region & City PM2.5 Ranking (Publication no. <https://www.iqair.com/world-most-polluted-cities/world-air-quality-report-2020-en.pdf>).
- Irawan, Elia, A., & Benius. (2022). Interactive effects of citizen trust and cultural values on pro-environmental behaviors: A time-lag study from Indonesia. *Heliyon*, 8(3), e09139
- Israel, G. D. (1992). Sampling the Evidence of Extension Program Impact.
- Jamme, H. T. W., Bahl, D., & Banerjee, T. (2018). Between “broken windows” and the “eyes on the street:” walking to school in inner city San Diego. *Journal of Environmental Psychology*, 55, 121-138
- Jefferson, B. J. (2016). Broken Windows Policing and Constructions of Space and Crime: Flatbush, Brooklyn. *Antipode*, 48(5), 1270-1291
- Jia, Y. J., & Lin, D. R. (2015). Influence factors and effects of tourists' environmentally responsible behaviors based on place theory. *China population, resources and environment*, 25(7), 161-169
- Jin, M. (2013). Does Social Capital Promote Pro-Environmental Behaviors? Implications for Collaborative Governance. *International Journal of Public Administration*, 36(6), 397-407
- Joanes, T. (2019). Personal norms in a globalized world: Norm-activation processes and reduced clothing consumption. *Journal of Cleaner Production*, 212, 941-949
- Jonker, J., & Pennink, B. (2010). The essence of research methodology: A concise guide for master and PhD students in management science: Springer Science & Business Media.
- Juvan, E., & Dolnicar, S. (2014). The attitude-behaviour gap in sustainable tourism. *Annals of Tourism Research*, 48, 76-95
- Juvan, E., & Dolnicar, S. (2017). Drivers of pro-environmental tourist behaviours are not universal. *Journal of Cleaner Production*, 166, 879-890
- Kaiser, F., & Gutscher, H. (2003). The Proposition of a General Version of the Theory of Planned Behavior: Predicting Ecological Behavior. *Journal of Applied Social Psychology*, 33

- Kaiser, F. G. (1998). A general measure of ecological behavior. *Journal of Applied Social Psychology, 28*(5), 395-422
- Kaiser, F. G., & Wilson, M. (2004). Goal-directed conservation behavior: the specific composition of a general performance. *Personality and Individual Differences, 36*(7), 1531-1544
- Kalamas, M., Cleveland, M., & Laroche, M. (2014). Pro-environmental behaviors for thee but not for me: Green giants, green Gods, and external environmental locus of control. *Journal of Business Research, 67*(2), 12-22
- Kiatkawsin, K., & Han, H. (2017). Young travelers' intention to behave pro-environmentally: Merging the value-belief-norm theory and the expectancy theory. *Tourism Management, 59*, 76-88
- Kim, J. J., & Hwang, J. (2020). Merging the norm activation model and the theory of planned behavior in the context of drone food delivery services: Does the level of product knowledge really matter? *Journal of Hospitality and Tourism Management, 42*, 1-11
- Kim, S. H., & Seock, Y.-K. (2019). The roles of values and social norm on personal norms and pro-environmentally friendly apparel product purchasing behavior: The mediating role of personal norms. *Journal of Retailing and Consumer Services, 51*, 83-90
- Koç, B., Küçükerğın, K. G., & Dimanche, F. (2022). How destructive are negative tourist-to-tourist interactions despite the mitigating effect of optimism? *Journal of Destination Marketing & Management, 23*, 100693
- Kock, N., & Lynn, G. (2012). Lateral Collinearity and Misleading Results in Variance-Based SEM: An Illustration and Recommendations. *Journal of the Association of Information Systems, 13*
- Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research, 8*(3), 239-260
- Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.
- Kwon, O. Y. (2019). *Social Trust and Economic Development: The Case of South Korea*: Edward Elgar Publishing.
- Landon, A. C., Kyle, G. T., & Kaiser, R. A. (2017). An Augmented Norm Activation Model: The Case of Residential Outdoor Water Use. *Society & Natural Resources, 30*(8), 903-918
- Lang, D. L., Salazar, L. F., Crosby, R. A., DiClemente, R. J., Brown, L. K., & Donenberg, G. R. (2010). Neighborhood environment, sexual risk behaviors and acquisition of sexually transmitted infections among adolescents

- diagnosed with psychological disorders. *J. American journal of community psychology*, 46(3), 303-311
- Lang, L. P. (2018). Research on Rural Tourism and Ecological Environment Protection. *Journal of Huaihua University*, 37 (6), 50-52
- Lather, P. (1986). Issues of validity in openly ideological research: Between a rock and a soft place. *Interchange*, 17(4), 63-84
- Lee, T. H., & Jan, F.-H. (2015). The Effects of Recreation Experience, Environmental Attitude, and Biospheric Value on the Environmentally Responsible Behavior of Nature-Based Tourists. *Environmental Management*, 56(1), 193-208
- Lee, T. H., Jan, F. H., & Yang, C. C. (2013). Conceptualizing and measuring environmentally responsible behaviors from the perspective of community-based tourists. *Tourism Management*, 36, 454-468
- Li, D., Zhao, L., Ma, S., Shao, S., & Zhang, L. (2019). What influences an individual's pro-environmental behavior? A literature review. *Resources, Conservation and Recycling*, 146, 28-34
- Li, Q.-C., & Wu, M.-Y. (2019a). Rationality or morality? A comparative study of pro-environmental intentions of local and nonlocal visitors in nature-based destinations. *Journal of Destination Marketing & Management*, 11, 130-139
- Li, Q., & Wu, M. (2020). Tourists' pro-environmental behaviour in travel destinations: benchmarking the power of social interaction and individual attitude. *Journal of Sustainable Tourism*, 28(9), 1371-1389
- Li, Q. C. (2015). Study on the Driving Factors of Tourists' Willingness to Environmentally Responsible Behaviors from the Perspective of Human-Ground and Interpersonal Interactions. (Doctoral dissertation), Zhejiang University,
- Li, Q. C., & Wu, M. Y. (2019b). Rationality or morality? A comparative study of pro-environmental intentions of local and nonlocal visitors in nature-based destinations. *Journal of Destination Marketing and Management*, 11, 130-139
- Li, Q. C., & Zhou, L. Q. (2014). The impact of social capital on tourists'intention to exhibit environment-friendly behaviors. *Tourism Tribune*, 29(9), 73-82
- Li, Z., & Li, T. (2018). A Study of Environmental Responsible Behaviors of Tourists: A Comparative Analysis Based on Domestic and Foreign Studies. *Tourism Research*, 10(5), 41-54
- Lim, X. J. (2018). *Perceptions and intentions of Malaysian urbanites towards the concept of retirement village*. (Masters thesis), Universiti Putra Malaysia., Retrieved from <http://psasir.upm.edu.my/id/eprint/75787>

- Lin, H., Gao, J., & Tian, J. (2022). Impact of tourist-to-tourist interaction on responsible tourist behaviour: Evidence from China. *Journal of Destination Marketing & Management*, 24, 100709
- Lin, H., Gursoy, D., & Zhang, M. (2020a). Impact of customer-to-customer interactions on overall service experience: A social servicescape perspective. *International Journal of Hospitality Management*, 87, 102376
- Lin, H., Zhang, M., & Gursoy, D. (2020b). Impact of nonverbal customer-to-customer interactions on customer satisfaction and loyalty intentions. *International Journal of Contemporary Hospitality Management*, 32(5), 1967-1985
- Lin, H., Zhang, M., Gursoy, D., & Fu, X. (2019). Impact of tourist-to-tourist interaction on tourism experience: The mediating role of cohesion and intimacy. *Annals of Tourism Research*, 76, 153-167
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*: sage.
- Ling, M., & Xu, L. (2020). Relationships between personal values, micro-contextual factors and residents' pro-environmental behaviors: An explorative study. *Resources, Conservation and Recycling*, 156, 104697
- Liu, H. B. (2016). The empirical research on the relationship between environmental awareness of college students and tourists' environmental responsibility behavior intention. *Contemporary Youth Research*, 262-66
- Liu, J., Wu, J. S., & Che, T. (2019). Understanding perceived environment quality in affecting tourists' environmentally responsible behaviours: A broken windows theory perspective. *Tourism Management Perspectives*, 31, 236-244
- Liu, L., Huang, Y., & Zhang, W. (2018). Residential segregation and perceptions of social integration in Shanghai, China. *Urban Studies*, 55(7), 1484-1503
- Liu, T. T., Juvan, E., Qiu, H. Q., & Dolnicar, S. (2021). Context- and culture-dependent behaviors for the greater good: a comparative analysis of plate waste generation. *Journal of Sustainable Tourism*
- Lohmöller, J.-B. (1989). *Predictive vs. Structural Modeling: PLS vs. ML*. Heidelberg: Physica-Verlag HD.
- Lorenzoni, I., Nicholson-Cole, S., & Whitmarsh, L. (2007). Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change*, 17(3-4), 445-459
- Loschelder, D. D., Siepelmeyer, H., Fischer, D., & Rubel, J. A. (2019). Dynamic norms drive sustainable consumption: Norm-based nudging helps café customers to avoid disposable to-go-cups. *Journal of Economic Psychology*, 75

- Lu, H., Zhang, W., Diao, B., Liu, Y., Chen, H., Long, R., & Cai, S. (2021). The progress and trend of pro-environmental behavior research: a bibliometrics-based visualization analysis. *Current Psychology*
- Macias, T., & Nelson, E. (2011). A Social Capital Basis for Environmental Concern: Evidence from Northern New England. *Rural Sociology, 76*, 562-581
- Mair, J., & Bergin-Seers, S. (2010). The Effect of Interventions on the Environmental Behaviour of Australian Motel Guests. *Tourism and Hospitality Research, 10*(4), 255-268
- Marczyk, G. R., DeMatteo, D., & Festinger, D. (2010). *Essentials of research design and methodology* (Vol. 2): John Wiley & Sons.
- Martin, C. L., & Clark, T. (1996). Networks of Customer-to-Customer Relationships in Marketing: Conceptual Foundations and Implications.
- Martin, C. L., & Pranter, C. A. (1989). Compatibility Management: Customer - to - Customer Relationships in Service Environments. *Journal of Services Marketing, 3*(3), 5-15
- MEE. (2018). Bulletin of Marine Ecology and Environment Status of China in 2018 (Publication no. <http://english.mee.gov.cn/Resources/Reports/bomeaesoc/201911/P020191129369234962072.pdf>).
- Meng, B., Chua, B.-L., Ryu, H. B., & Han, H. (2020). Volunteer tourism (VT) traveler behavior: merging norm activation model and theory of planned behavior. *Journal of Sustainable Tourism, 28*(12), 1947-1969
- Miller, G., Rathouse, K., Scarles, C., Holmes, K., & Tribe, J. (2010). Public understanding of sustainable tourism. *Annals of Tourism Research, 37*(3), 627-645
- Miller, Z. D., Freimund, W. A., & Powell, R. B. (2018). Measuring elaboration and evaluating its influence on behavioral intentions. *J. Interpretation Res., 23*(1), 27-44
- Mishra, P., Pandey, C. M., Singh, U., Gupta, A., Sahu, C., & Keshri, A. (2019). Descriptive statistics and normality tests for statistical data. *Ann Card Anaesth, 22*(1), 67-72
- Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of management review, 23*(2), 242-266
- Nolan, J. M., & Schultz, P. W. (2015). *Prosocial behavior and environmental action*. New York, NY, US: Oxford University Press.

- Noppers, E. H., Keizer, K., Bolderdijk, J. W., & Steg, L. (2014). The adoption of sustainable innovations: Driven by symbolic and environmental motives. *Global Environmental Change*, 25(1), 52-62
- Nunnally, J. C. (1978). *Psychometric Theory* (2nd ed.). New York: McGraw-Hill.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Validity. Psychometric Theory*. New York: McGraw-Hill.
- Nykiel, R. A. (2007). *Handbook of marketing research methodologies for hospitality and tourism* (First edition ed.). New York: Routledge.
- Office, C. C. C. (2020a). The main uncivilized behaviors of Chinese tourists. Retrieved 30 Mar. 2021 http://bj.wenming.cn/chy/tpxw/202010/t20201029_5831670.shtml
- Office, C. C. C. (2020b). The main uncivilized behaviors of Chinese tourists. Retrieved from http://bj.wenming.cn/chy/tpxw/202010/t20201029_5831670.shtml
- Onwezen, M. C., Antonides, G., & Bartels, J. (2013). The Norm Activation Model: An exploration of the functions of anticipated pride and guilt in pro-environmental behaviour. *Journal of Economic Psychology*, 39, 141-153
- Ortigueira-Sánchez, L. C. (2017). Influencing factors on citizen safety perception: systems and broken windows theories. *International Review on Public and Nonprofit Marketing*, 14(1), 95-111
- Ostrom, E. (2000). Collective Action and the Evolution of Social Norms. *Journal of Economic Perspectives*, 14(3), 137-158
- Pan, A. L., Wang, H., & Qiu, J. L. (2021). Confucian culture and green mergers and acquisitions of heavily polluting enterprises. *Accounting Research*, 5, 133-147
- Park, H. S., & Smith, S. W. (2007). Distinctiveness and Influence of Subjective Norms, Personal Descriptive and Injunctive Norms, and Societal Descriptive and Injunctive Norms on Behavioral Intent: A Case of Two Behaviors Critical to Organ Donation. 33(2), 194-218
- Pearce, J., Huang, S., Dowling, R. K., & Smith, A. J. (2022). Effects of social and personal norms, and connectedness to nature, on pro-environmental behavior: A study of Western Australian protected area visitors. *Tourism Management Perspectives*, 42, 100966
- Perkins, H. E., & Brown, P. R. (2012). Environmental Values and the So-Called True Ecotourist. *Journal of Travel Research*, 51(6), 793-803

- Podsakoff, P. M., & Organ, D. W. (1986). Self-Reports in Organizational Research: Problems and Prospects. *12*(4), 531-544
- Portes, A. (1998). Social Capital: Its Origins and Applications in Modern Sociology. *Annual Review of Sociology*, *24*, 1-24
- Preacher, K. J., & Hayes, A. F. J. B. r. m. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *40*(3), 879-891
- Pretty, J., & Ward, H. (2001). Social Capital and the Environment. *World Development*, *29*(2), 209-227
- Price, G. N. (2016). Broken windows and crime in development challenged urban areas: evidence from Jackson, Mississippi USA. *Journal of Developing Areas*, *50*(3), 209-220
- Punzo, G., Panarello, D., Pagliuca, M. M., Castellano, R., & Aprile, M. C. (2019). Assessing the role of perceived values and felt responsibility on pro-environmental behaviours: A comparison across four EU countries. *Environmental Science & Policy*, *101*, 311-322
- Putnam, R. D. (1992). *Making Democracy Work*: Princenton University.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*: Simon and schuster.
- Qiao, G., & Gao, J. (2017). Chinese tourists' perceptions of climate change and mitigation behavior: An application of norm activation theory. *Sustainability*, *9*(8), 1322
- Qin, Q., & Hsu, C. H. C. (2022). Urban travelers' pro-environmental behaviors: Composition and role of pro-environmental contextual force. *Tourism Management*, *92*, 104561
- Qiu, H. L. (2016). Study on the relationship between moral norm and tourists' civilization tourism behavioral intention: An extended theory of planned behavior model. *Zhejiang Social Sciences*, *3*(3), 96-103
- Qiu, H. L. (2017). Developing an extended theory of planned behavior model to predict outbound tourists' civilization tourism behavioral intention. *Tourism Tribune*, *32*(6), 75-85
- Qiu, H. L., Fan, J., & Zhao, L. (2018a). Development of the academic study of tourists' environmentally responsible behavior: A literature review. *Tourism Tribune*, *33*(11), 122-138
- Qiu, H. L., Fan, J., & Zhao, L. (2018b). Review and Prospect of Research on Tourists' Environmental Responsibility Behavior. *Journal of Tourism*, *33*(11), 122-138

- Qiu, H. L., & Zhou, G. Z. (2017). Tourist environmental responsible behavior: Concept, scales, and validation. *Zhejiang Soc. Sci.*, 12, 88
- Rajapaksa, D., Islam, M., & Managi, S. (2018). Pro-Environmental Behavior: The Role of Public Perception in Infrastructure and the Social Factors for Sustainable Development. *10*(4), 937
- Ramkissoon, H., Graham Smith, L. D., & Weiler, B. (2013). Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours: A structural equation modelling approach. *Tourism Management*, 36, 552-566
- Reynolds, N., & Diamantopoulos, A. (1998). The effect of pretest method on error detection rates: Experimental evidence. *European Journal of Marketing*, 32, 480-498
- Richter, I., Thøgersen, J., & Klöckner, C. A. (2018). A Social Norms Intervention Going Wrong: Boomerang Effects from Descriptive Norms Information. *10*(8), 2848
- Rogers, R. W. (1975). A Protection Motivation Theory of Fear Appeals and Attitude Change. *The Journal of Psychology*, 91(1), 93-114
- Roosen, I., & Raedts, M. (2018). The effects of online customer reviews and managerial responses on travelers' decision-making processes. *Journal of Hospitality Marketing Management*, 27(8), 973-996
- Rosenthal, S., & Ho, K. L. (2020). Minding other people's business: Community attachment and anticipated negative emotion in an extended norm activation model. *Journal of Environmental Psychology*, 69, 101439
- Rosenthal, S., & Yu, M. S. C. (2022). Anticipated guilt and anti-littering civic engagement in an extended norm activation model. *Journal of Environmental Psychology*, 80, 101757
- Saracevic, S., Schlegelmilch, B. B., & Wu, T. (2022). How normative appeals influence pro-environmental behavior: The role of individualism and collectivism. *Journal of Cleaner Production*, 344, 131086
- Sarstedt, M., & Mooi, E. (2014). *A Concise Guide to Market Research: The Process, Data, and Methods Using IBM SPSS Statistics*: Springer Berlin Heidelberg.
- Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (Seven edition ed.). Harlow: Pearson Education Limited.
- Savani, K., Wadhwa, M., Uchida, Y., Ding, Y., & Naidu, N. V. R. (2015). When norms loom larger than the self: Susceptibility of preference-choice consistency to normative influence across cultures. *Organizational Behavior and Human Decision Processes*, 129, 70-79

- Schwartz, S. H. (1977). Normative influences on altruism. *Advances in Experimental Social Psychology*, 10, 221-279
- Schwartz, S. H., & Howard, J. A. (1981). A normative decision-making model of altruism. *Altruism and Helping Behavior: Social, Personality, and Developmental Perspectives*, 189-211
- Setiawan, B., Afiff, A. Z., & Heruwasto, I. (2021). Personal norm and pro-environmental consumer behavior: an application of norm activation theory. *ASEAN Marketing Journal*, 3(1)
- Sharma, R., & Gupta, A. (2020). Pro-environmental behaviour among tourists visiting national parks: application of value-belief-norm theory in an emerging economy context. *Asia Pacific Journal of Tourism Research*, 25(8), 829-840
- Sheng, G., Dai, J., & Pan, H. (2020). Influence of Air Quality on Pro-environmental Behavior of Chinese Residents: From the Perspective of Spatial Distance. *Frontiers in Psychology*, 11, 566046
- Shepherd, D. A., Patzelt, H., & Baron, R. A. (2013). "I care about nature, but, disengaging values in assessing opportunities that cause harm. *Academy of Management Journal*, 56(5), 1251-1273
- Shi, X., & Song, Z. (2019). The Silent Majority: Local residents' environmental behavior and its influencing factors in coal mine area. *Journal of Cleaner Production*, 240, 118275
- Shin, Y. H., Im, J., Jung, S. E., & Severt, K. J. I. J. o. H. M. (2018). The theory of planned behavior and the norm activation model approach to consumer behavior regarding organic menus. 69, 21-29
- Siemens, J. C., Raymond, M. A., Choi, Y., & Choi, J. (2020). The influence of message appeal, social norms and donation social context on charitable giving: investigating the role of cultural tightness-looseness. *Journal of Marketing Theory and Practice*, 28(2), 187-195
- Sipe, L. J., Testa, M. R. J. J. o. H. M., & Management. (2018). From satisfied to memorable: An empirical study of service and experience dimensions on guest outcomes in the hospitality industry. 27(2), 178-195
- Sivek, D. J., & Hungerford, H. (1990). Predictors of Responsible Behavior in Members of Three Wisconsin Conservation Organizations. *The Journal of Environmental Education*, 21(2), 35-40
- Smith-Sebasto, N. J., & D'Costa, A. (1995). Designing a likert-type scale to predict environmentally responsible behavior in undergraduate students: A multistep process. *Journal of Environmental Education*, 27(1), 14-20

Smith, H. J., Pettigrew, T. F., Pippin, G. M., & Bialosiewicz, S. (2012). Relative deprivation: a theoretical and meta-analytic review. *Pers Soc Psychol Rev*, 16(3), 203-232

Smith, M. (2019). Britons make worst tourists, say Britons (and Spaniards and Germans). https://yougov.co.uk/topics/lifestyle/articles-reports/2019/08/30/britons-make-worst-tourists-say-britons-and-spainia?utm_source=twitterandutm_medium=website_articleandutm_campaign=international_tourism

Song, Q., Wang, Z., & Li, J. (2012). Residents' behaviors, attitudes, and willingness to pay for recycling e-waste in Macau. *Journal of Environmental Management*, 106, 8-16

Song, Z., Daryanto, A., & Soopramanien, D. (2019). Place attachment, trust and mobility: Three-way interaction effect on urban residents' environmental citizenship behaviour. *Journal of Business Research*, 105, 168-177

Steg, L., Bolderdijk, J. W., Keizer, K., & Perlaviciute, G. (2014a). An Integrated Framework for Encouraging Pro-environmental Behaviour: The role of values, situational factors and goals. *Journal of Environmental Psychology*, 38, 104-115

Steg, L., & de Groot, J. (2010). Explaining prosocial intentions: Testing causal relationships in the norm activation model. *British Journal of Social Psychology*, 49(4), 725-743

Steg, L., Dreijerink, L., & Abrahamse, W. (2005). Factors influencing the acceptability of energy policies: A test of VBN theory. *Journal of Environmental Psychology*, 25(4), 415-425

Steg, L., Perlaviciute, G., van der Werff, E., & Lurvink, J. (2014b). The Significance of Hedonic Values for Environmentally Relevant Attitudes, Preferences, and Actions. *Environment and Behavior*, 46(2), 163-192

Steg, L., & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29(3), 309-317

Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407-424

Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6(2), 81-97

- Su, L., Hsu, M. K., & Boostrom, R. E. J. J. o. B. R. (2020). From recreation to responsibility: Increasing environmentally responsible behavior in tourism. *109*, 557-573
- Su, L., & Swanson, S. R. (2017). The effect of destination social responsibility on tourist environmentally responsible behavior: Compared analysis of first-time and repeat tourists. *Tourism Management*, *60*, 308-321
- Sumner, W. G. (2015). *Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals*: BiblioBazaar.
- Sun, H., Wu, S., Li, Y., & Dai, G. (2019). Tourist-to-Tourist Interaction at Festivals: A Grounded Theory Approach. *11*(15), 4030
- Sun, Q., & Liu, Z. (2020). Impact of tourism activities on water pollution in the West Lake Basin (Hangzhou, China). *OPEN GEOSCIENCES*, *12*, 1302-1308
- Szostek, D. (2019). The Impact of the Quality of Interpersonal Relationships between Employees on Counterproductive Work Behavior: A Study of Employees in Poland. *Sustainability*, *11*, 1-33
- Tam, K. P., & Chan, H. W. (2018). Generalized trust narrows the gap between environmental concern and pro-environmental behavior: Multilevel evidence. *Global Environmental Change*, *48*, 182-194
- Tayie, P. D. S. (2005). *Research Methods and Writing Research Proposals: Pathways to Higher Education*.
- Teng, Y., Ma, Z., & Jing, L. (2021). Explore the World Responsibly: The Antecedents of Ethical Tourism Behaviors in China. *13*(9), 4907
- Thammajinda, R. (2013). *Community participation and social capital in tourism planning and management in a Thai context*. Lincoln University,
- Thøgersen, J. (2006). Norms for environmentally responsible behaviour: An extended taxonomy. *Journal of Environmental Psychology*, *26*(4), 247-261
- Tonge, J., Ryan, M. M., Moore, S. A., & Beckley, L. E. (2015). *Journal of Travel Research*, *54*(6), 730
- Tsang, S., Royse, C. F., & Terkawi, A. S. (2017). Guidelines for developing, translating, and validating a questionnaire in perioperative and pain medicine. *Saudi J Anaesth*, *11*(Suppl 1), S80-s89
- Tse, S., & Tung, V. W. S. (2022). Understanding residents' attitudes towards tourists: Connecting stereotypes, emotions and behaviours. *Tourism Management*, *89*, 104435

- Tsiakali, K. (2018). User-generated-content versus marketing-generated-content: Personality and content influence on traveler's behavior. *Journal of Hospitality Marketing Management*, 27(8), 946-972
- Udo, G. G., & Bagchi, K. K. (2019). The role of personal norm in predicting intention for digital piracy. *J. Issues In Information Systems*
- Umrani, W. A., Channa, N. A., Yousaf, A., Ahmed, U., Pahi, M. H., & Ramayah, T. (2020). Greening the workforce to achieve environmental performance in hotel industry: A serial mediation model. *Journal of Hospitality Tourism Management*, 44, 50-60
- UNEP. (2019). Emissions Gap Report 2019. <http://www.unenvironment.org/emissionsgap>.
- Urbach, N., & Ahlemann, F. (2010). Structural equation modeling in information systems research using Partial Least Squares. *Journal of Information Technology Theory and Application*, 11
- Usunier, J. C. (1998). *International and Cross-Cultural Management Research*: SAGE Publications.
- Van Riper, C. J., & Kyle, G. T. (2014). Understanding the internal processes of behavioral engagement in a national park: A latent variable path analysis of the value-belief-norm theory. *Journal of Environmental Psychology*, 38, 288-297
- Vicente-Molina, M. A., Fernández-Sainz, A., & Izagirre-Olaizola, J. (2018). Does gender make a difference in pro-environmental behavior? The case of the Basque Country University students. *Journal of Cleaner Production*, 176, 89-98
- Videras, J., Owen, A. L., Conover, E., & Wu, S. (2012). The influence of social relationships on pro-environment behaviors. *Journal of Environmental Economics and Management*, 63(1), 35-50
- Vining, J., & Ebreo, A. (1992). Predicting Recycling Behavior from Global and Specific Environmental Attitudes and Changes in Recycling Opportunities. *Journal of Applied Social Psychology*, 22(20), 1580-1607
- Vroom, V. H. (1964). *Work and motivation*: Wiley.
- Wan, J. C., Zhang, J., & Lu, S. J., et al. (2014). Relationship between specific attributes of place, tourists' place attachment and pro-environment behavioral intentions in Jiuzhaigou. *Progress in Geography*, 33(3), 411-421
- Wang, C., Zhang, J., Cao, J., Duan, X., & Hu, Q. (2019a). The impact of behavioral reference on tourists' responsible environmental behaviors. *Science of the Total Environment*, 694

- Wang, C., Zhang, J., Cao, J., Hu, H., & Yu, P. (2019b). The influence of environmental background on tourists' environmentally responsible behaviour. *Journal of Environmental Management*, 231, 804-810
- Wang, C., Zhang, J., Yu, P., & Hu, H. (2018a). The theory of planned behavior as a model for understanding tourists' responsible environmental behaviors: The moderating role of environmental interpretations. *Journal of Cleaner Production*, 194, 425-434
- Wang, H., Liu, X., Wang, N., Zhang, K., Wang, F., Zhang, S., Wang, R., Zheng, P., & Matsushita, M. (2020). Key factors influencing public awareness of household solid waste recycling in urban areas of China: A case study. *Resources, Conservation and Recycling*, 158, 104813
- Wang, J. M. (2015). The dimensional structure of environmental emotion and its influence on consumption carbon emission reduction behavior—the two-factor theory hypothesis of emotion and behavior and its verification. *Management World*, 12, 82-95
- Wang, S., Lin, S., & Li, J. (2018b). Exploring the effects of non-cognitive and emotional factors on household electricity saving behavior. *Energy Policy*, 115, 171-180
- Wang, S., Wang, J., Wan, L., & Wang, H. (2022). Social norms and tourists' pro-environmental behaviors: Do ethical evaluation and Chinese cultural values matter? *Journal of Sustainable Tourism*, 1-17
- Wang, X., & Zhang, C. (2020a). Contingent effects of social norms on tourists' pro-environmental behaviours: the role of Chinese traditionality. *Journal of Sustainable Tourism*, 28(10), 1646-1664
- Wang, X. Z., & Zhang, C. Z. (2020b). Contingent effects of social norms on tourists' pro-environmental behaviours: the role of Chinese traditionality. *Journal of Sustainable Tourism*, 28(10), 1646-1664
- Wang, Y., Zhu, Y., Lu, J., & Ao, C. (2016). Application of broken window effect in safety management of construction industry (in Chinese with English abstract). *Constr. Technol.*, 45(23), 167-169
- Weaver, D. B., & Lawton, L. J. (2011). Visitor Loyalty at a Private South Carolina Protected Area. *Journal of Travel Research*, 50(3), 335-346
- Weele, J. J., Flynn, M. P., & Wolk, R. J. (2017). Broken Window Effect: Encyclopedia of Law and Economics.
- Wei, W., Lu, Y. T., Miao, L., Cai, L. A., & Wang, C.-y. (2017). Customer-customer interactions (CCIs) at conferences: An identity approach. *Tourism Management*, 59, 154-170

- Wilson, J. Q., & Kelling, G. L. (1982). Broken windows. *Atlantic Monthly*(3), 29-38
- Wittenberg, I., Blöbaum, A., & Matthies, E. (2018). Environmental motivations for energy use in PV households: Proposal of a modified norm activation model for the specific context of PV households. *Journal of Environmental Psychology, 55*, 110-120
- Wolske, K. S., Gillingham, K. T., & Schultz, P. J. N. E. (2020). Peer influence on household energy behaviours. *5*(3), 202-212
- WTTC. (2021). Global Economic Impact and Trends 2021 (Publication no. <https://wttc.org/Portals/0/Documents/Reports/2021/Global%20Economic%20Impact%20and%20Trends%202021.pdf>).
- Wu, B., & Yang, Z. (2018). The impact of moral identity on consumers' green consumption tendency: The role of perceived responsibility for environmental damage. *Journal of Environmental Psychology, 59*, 74-84
- Wu, J., Font, X., & Liu, J. (2021a). Tourists' Pro-environmental Behaviors: Moral Obligation or Disengagement? *Journal of Travel Research, 60*(4), 735-748
- Wu, J. L., Font, X., & Liu, J. Y. (2021b). The elusive impact of pro-environmental intention on holiday on pro-environmental behaviour at home. *Tourism Management, 85*, 104283
- Wu, J. L., Font, X., & Liu, J. Y. (2021c). Tourists' pro-environmental behaviors: Moral obligation or disengagement? *Journal of Travel Research, 60*(4), 735-748
- Wu, J. X., Wu, H. C., Hsieh, C.-M., & Ramkissoon, H. (2022). Face consciousness, personal norms, and environmentally responsible behavior of Chinese tourists: Evidence from a lake tourism site. *Journal of Hospitality and Tourism Management, 50*, 148-158
- Wurzinger, S., & Johansson, M. (2006). Environmental Concern and Knowledge of Ecotourism among Three Groups of Swedish Tourists. *45*(2), 217-226
- Xu, H., & Tu, H. W. (2021). Research on the influence of scenic spot environmental quality on tourists' pro-environmental behavior: Taking Wuyi Mountain Scenic Spot as an example. *Forestry Economy, 43*(12), 39-54.
- Xu, L., Chu, X., Ling, M. J. S. P., & Consumption. (2021). Influence of role models on public participation in household waste separation: An examination of local contextual moderators. *27*, 1934-1943
- Xu, L., Yang, H., & Ling, M. (2022). Interpersonal contextual influences on the relationship between values and pro-environmental behaviors. *Sustainable Production and Consumption, 32*, 532-540

- Yamin, P., Fei, M., Lahlou, S., & Levy, S. J. S. (2019). Using social norms to change behavior and increase sustainability in the real world: A systematic review of the literature. *11*(20), 5847
- Yan, J. (2017). A Study on the Influencing Factors of the Interaction between Travel Agency Team Visitors and Their Relationship with Satisfaction. (Doctoral Degree), Northwest University,
- Yao, L. F., & Long, R. Y. (2017). Research on the affecting factors of tourist environmental protection behavior based on grounded theory. *Journal of Chongqing Universtiy (Social Science Edition)*, *23*(1), 17-25
- Yeow, P. H. P., & Loo, W. H. (2022). Antecedents of green computer purchase behavior among Malaysian consumers from the perspective of rational choice and moral norm factors. *Sustainable Production and Consumption*, *32*, 550-561
- Yin, J., Qian, L., & Singhapakdi, A. (2018). Sharing Sustainability: How Values and Ethics Matter in Consumers' Adoption of Public Bicycle-Sharing Scheme. *Journal of Business Ethics*, *149*(2), 313-332
- Youn, H., Yin, R., Kim, J.-H., & Li, J. (2020). Examining traditional restaurant diners' intention: An application of the VBN theory. *International Journal of Hospitality Management*, *85*, 102360
- Yu, T.-Y., Yu, T.-K., & Chao, C.-M. (2017). Understanding Taiwanese undergraduate students' pro-environmental behavioral intention towards green products in the fight against climate change. *Journal of Cleaner Production*, *161*, 390-402
- Yu, X. T., Wu X.G., & Y.L., Z. (2015). Factors driving environmentally responsible behaviors by tourists: A case study of Taiwan, China. *Tourism Tribune*, *30*(7), 49-59
- Zhang, J. C., Xie, C. W., Morrison, A. M., & Zhang, K. (2020a). Fostering Resident Pro-Environmental Behavior: The Roles of Destination Image and Confucian Culture. *Sustainability*, *12*(2), 597
- Zhang, J. H., Huang, W. M., Zhao, Y., & Gao, J. L. (2019). Eco-environmental Problems and Countermeasures in Rural Tourism Development in Hebei Province. *Grain Science and Technology and Economy*, *44* (1), 122-124
- Zhang, L., Ruiz-Menjivar, J., Luo, B., Liang, Z., & Swisher, M. E. (2020b). Predicting climate change mitigation and adaptation behaviors in agricultural production: A comparison of the theory of planned behavior and the Value-Belief-Norm Theory. *Journal of Environmental Psychology*, *68*, 101408

- Zhang, X., Wu, Z., Feng, Y., & Xu, P. (2015). "Turning green into gold": a framework for energy performance contracting (EPC) in China's real estate industry. *Journal of Cleaner Production*, 109, 166-173
- Zhang, Y., Gao, Y. N., & Jiang, J. (2021). An unpredictable environment reduces pro-environmental behavior: A dynamic public goods experiment on forest use. *Journal of Environmental Psychology*, 78, 101702
- Zhang, Y., Wang, Z., & Zhou, G. (2013). Antecedents of employee electricity saving behavior in organizations: An empirical study based on norm activation model. *Energy Policy*, 62, 1120-1127
- Zhang, Y. L., Zhang, H. L., Zhang, J., & Cheng, S. W. (2014). Predicting residents' pro-environmental behaviors at tourist sites: The role of awareness of disaster's consequences, values, and place attachment. *Journal of Environmental Psychology*, 40, 131-146
- Zhang, Y. L., Zhang, J., Ye, Y. Y., Wu, Q. T., Jin, L. X., & Zhang, H. O. (2016). Residents' Environmental Conservation Behaviors at Tourist Sites: Broadening the Norm Activation Framework by Adopting Environment Attachment. 8(6), 571
- Zhou, C., Mou, H., Xu, W., Li, Z., Liu, X., Shi, L., Peng, B., Zhao, Y., Gao, L., & Fan, L. (2017). Study on factors inducing workplace violence in Chinese hospitals based on the broken window theory: A cross-sectional study. *BMJ Open*, 7(7)
- Zhou, L., Li, Q., & Zhu, L. (2014). Outcome efficacy, people-destination affect, and tourists environmentally responsible behavior intention: A revised model based on the theory of planned behavior. *Journal of Zhejiang University*, 44(02), 88-98
- Zhu, J. J., Airey, D., & Siriphon, A. (2021). Chinese outbound tourism: An alternative modernity perspective. *Annals of Tourism Research*, 87
- Zhu, M. (2016). Study on tourists' ecological civilization behavior based multi-sample latent class model: A case of Suzhou. *Geographical Research*, 35(7), 1329-1343.
- Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin, M. (2013). *Business research methods*: Cengage Learning Custom Publishing.