



The Relations between Green Tourism Experience, Well-Being and Word-of-Mouth: The Moderating Role of Collectivism

Rong Ding

School of Management, Wuhan University of Technology, Wuhan, 430070, China

281759@whut.edu.cn

Abstract. This study, against the backdrop of the tourism industry's green transformation and current demands, integrates green tourism theory, experience economy theory, and "environment-behavior" relationship theory to explore the impact of green tourism experiences on tourists' word-of-mouth (WOM). The research reveals that tourism well-being mediates the relationship between green tourism experiences and tourists' WOM, with collectivism positively moderating this relationship. Tourists with stronger collectivism are more likely to extend their personal happiness to the group level, sharing the satisfaction and benefits derived from their tourism experiences.

The theoretical contribution of this paper is its in-depth exploration of the broad concept of green tourism, dissecting the connotations and types of green tourism experiences and categorizing them into three dimensions: green sensory experience, green emotional experience, and green social experience. Tourism well-being is viewed as a multidimensional comprehensive concept that acts as a mediating variable, inherently integrated with the context of green tourism and encompassing sensory enjoyment, leisure relaxation, as well as profound satisfaction and self-actualization. The introduction of collectivism as a moderating variable highlights the influence of cultural background and personal values on the aftermath of green tourism experiences, providing new research perspectives for tourism psychology and marketing.

The study concludes with practical management recommendations for tourism destination operators, aimed at promoting the industry's green transformation and sustainable development, thereby contributing significant academic and social value.

Keywords: Green Tourism Experience, Word-of-Mouth, Tourism Well-Being, Collectivism.

1 Introduction

The tourism industry in China has substantially expanded, becoming a significant aspect of residents' lives. While the surge in tourism consumption has enhanced local economies and increased residents' income levels[1], it has concurrently exerted

additional pressure on the ecological environments of tourist destinations. This has led to a range of environmental issues, including energy consumption, pollution, and ecosystem degradation, which are attributable to tourism development and visitor activities and are detrimental to the sustainable development of these destinations [2]. In light of these challenges, the "14th Five-Year Plan for Tourism Development" has explicitly set forth the goal of green transformation for the tourism industry, highlighting the construction of ecological civilization and the protection of the ecological environment. Within this context, green tourism has emerged as a critical pathway for the profound transformation and restructuring of the tourism sector, expediting the attainment of high-quality tourism development. Tourists, as the ultimate consumers of tourism products and services, play a pivotal role in the industry's green transformation. Word-of-mouth, an informal exchange among consumers regarding products or services, significantly impacts tourism product sales and decision-making[3]. Consequently, this study empirically investigates the key factors influencing tourists' WOM in the backdrop of the tourism industry's green transformation and upgrading.

2 Literature Review and Research Hypotheses

2.1 Theoretical Background

Green tourism, as a burgeoning model in the tourism industry, prioritizes the conservation and sustainable use of natural environments alongside local economic growth and cultural preservation [4]. It advocates for comprehensive consideration of resource conservation, environmental protection, cultural heritage, and local community involvement and benefits in tourism planning, development, and operations[5]. By refining tourism product designs, offering eco-friendly accommodations, sustainable transportation, and low-carbon catering services, and conducting environmental education, green tourism allows visitors to enjoy their experiences while raising their environmental awareness and responsibility[6]. Tourism experience theory, which scrutinizes the psychological, behavioral, and satisfaction shifts in tourists, posits that tourism encompasses a holistic experiential process beyond mere sightseeing[7][8]. Xie views tourism experience as the physiological and psychological response resulting from tourist-environment interactions, encompassing physical, emotional, social, and environmental dimensions[9]. This paper delineates green tourism experience into three specific dimensions: green sensory, emotional, and social experiences. Green sensory experience involves the direct perception of natural and cultural environments. Green emotional experience encompasses the profound emotional responses and value recognition arising from tourists' interactions with the natural and social environment. Green social experience pertains to the connections tourists establish with local communities and fellow visitors, fostering a sense of belonging and responsibility. In this study, Tourism experience is viewed as tourists' subjective interpretation of the destination's environmental conditions, positioned as an independent variable. Tourism well-being, acts as a mediator variable, reflecting tourists' psychological and emotional responses to the environment[10]. These responses are influenced by collectivist orientations, which,

under the modulating effect of cultural factors, further impact tourists' subsequent word-of-mouth behavior.

2.2 Research Hypotheses

Arndt (1967) initially characterized WOM as the organic exchange of information among consumers, lacking formal cognitive objectives or commercial intentions[11]. This communication is characterized by its general and informal nature, with a focus on sharing personal experiences and insights. Meilatinova (2021) expanded on this concept, highlighting the exchange of opinions and perceptions regarding products and services[12]. In the realm of green consumption, Wang (2023) noted that green purchasing, usage, and recycling behaviors can trigger attention to and sharing of green information, leading to social diffusion[13]. Kolhede & Gomez-Arias (2016) observed that fulfilling tourists' self-actualization needs results in perceived meaningful travel experiences and generates positive WOM evaluations[14]. Transformative tourism experiences enhance personal growth, increasing the propensity to share experiences and destinations, as such experiences evoke pro-social values and a sense of meaning[16].

H1: The overall green tourism experience has a positive effect on tourists' WOM.

Tourism experiences are inherently linked to optimal human functioning, personal development, and the exploration of individual potential, all of which are integral to well-being[15]. Scholars have recognized well-being as a pivotal mediating variable[17], with empirical evidence supporting its positive influence on tourists' word-of-mouth. Diener demonstrated that leisure activities, including tourism, enhance well-being dimensions and overall life satisfaction, which in turn fosters positive WOM[18]. Studies by Busser [19] further substantiate the mediating effect of happiness on WOM, with the latter using co-creation value scales to show a correlation between happiness and consumer WOM.

H2: Tourism well-being mediates the relationship between green tourism experience and WOM.

Values, shaped by individuals' beliefs and ideals, serve as benchmarks for guiding behavior and evaluating events, significantly influencing consumer actions and attitudes[20]. Hofstede highlighted through cultural dimension theory that collectivist cultures prioritize group interests over personal ones, profoundly impacting consumption behaviors and social interactions[21]. This framework aids in understanding how collectivism influences tourism experiences and WOM. Collectivist individuals, viewing themselves as group members, adhere to group norms, influencing their tourism experiences and satisfaction [22]. This adherence may lead to a desire for group consistency in tourism experiences, affecting behavioral intentions and potentially inclining them to share travel experiences to enhance group well-being through WOM. Pezzuti noted a positive correlation between collectivism and social network information sharing, suggesting that tourists with stronger collectivist tendencies are more likely to disseminate their travel experiences[23]. Based on these insights, this study hypothesizes:

H3: Collectivism positively moderates the influence of tourism well-being on tourists' WOM.

The theoretical model presented in this paper is illustrated in Figure 1.

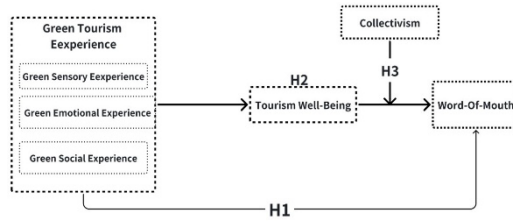


Fig. 1. Research Hypothesis Model

3 Methodology

This study assesses key variables using 22 items informed by green tourism and consumption literature. Green tourism experience, comprising sensory, emotional, and social aspects, is measured with 11 items based on Du & Fan (2007) [24] and Zhang (2019) [25]. Tourism well-being (TWB) is evaluated with 4 items from Tou (2020) [26] and Zhang Xiao (2020) [27]. Word-of-mouth (WOM) is gauged using Hwang & Lee's (2019) 3-item scale [28], while collectivism is assessed with Aras & Schwartz's (2014) 4-item scale [29]. Responses are on a 5-point Likert scale. Demographic and travel preference data are also collected.

Participants were selected based on recent green tourism experience within the past year. Data collection occurred both offline and online, yielding a 94.5% valid response rate from 427 out of 452 questionnaires. The sample's demographic diversity ensures representation of the green tourism consumer market.

4 Data Analysis and Results

4.1 Reliability and Validity Analysis

The reliability and validity of the measurements were ascertained using SmartPLS 4.0. Cronbach's alpha coefficients, presented in Table 1, were utilized to evaluate the internal consistency. The results indicated that all variables, including the questionnaire as a whole, had alpha coefficients exceeding 0.8, signifying high internal consistency and reliability.

Validity assessment encompassed both convergent and discriminant validity. Exploratory factor analysis was conducted on the questionnaire scales using SPSS 26.0. Bartlett's test of sphericity yielded a significance probability of 0.000, well below the threshold of 0.05, and the KMO measure was 0.951, indicating good sampling adequacy. Principal component analysis was employed for factor rotation, retaining factors with eigenvalues greater than 1. The six factors accounted for 89.3% of the cumulative variance, surpassing the benchmark of 60%, and their item distributions aligned with scale design. Factor loadings for all items exceeded the threshold of 0.50, confirming the convergent validity of the scales.

Table 1. Reliability Analysis of the Scale

Scale	Number of Items	Cronbach'α	Cronbach'α for the overall scale
Green Sensory Eexperience	4	0.959	0.969
Green Emotional Experience	4	0.968	
Green social experience	3	0.965	
Tourism Well-Being	4	0.967	
Word-Of-Mouth	4	0.973	
Collectivism	3	0.975	

Subsequently, the Heterotrait-Monotrait test were applied to the model constructs using the PLS-SEM algorithm within Smart PLS to assess discriminant validity. The HTMT ratios for the observed variables across all constructs are presented in Table 2. All HTMT ratios were found to be below the threshold of 0.85, suggesting that the constructs exhibit strong discriminant validity within the model.

Table 2. Discriminant Validity- Heterotrait Monotrait Test

	COL	GEE	GSE	GSO	TWB	WOM	COL x TWB
COL							
GEE	0.485						
GSE	0.362	0.781					
GSO	0.371	0.702	0.665				
TWB	0.367	0.759	0.704	0.736			
WOM	0.742	0.658	0.594	0.645	0.658		
COL × TWB	0.029	0.018	0.026	0.107	0.056	0.103	

4.2 Hypothesis Testing and Structural Model Assessment

This study utilized PLS-SEM to evaluate the structural model, employing the coefficient of determination (R^2) and predictive relevance (Q^2) as metrics. For the constructs of TWB and WOM, R^2 values were 0.638 and 0.725, respectively exceeding the threshold of 0.33. This suggests that the model exhibits substantial explanatory power. The Q^2 values were 0.626 and 0.696, respectively, which are above zero and surpass the benchmark of 0.35, respectively, indicating the model's robust predictive validity. and the relative fitting coefficients $NFI=0.945$, Collectively, these results demonstrate that the structural model fits the data well.

Utilizing Smart PLS with Bootstrapping, we evaluated the direct effects on WOM. Table 3 details the results. GSO positively influences WOM ($\beta = 0.176$, $t = 3.499$, $p < 0.001$), while GEE and GSE do not ($t < 1.96$, $p > 0.05$). Each dimension of green tourism experience significantly enhances TWB, with t-values above 1.96 and $p < 0.05$. Additionally, the positive effect of TWB on WOM is also significant ($\beta = 0.257$, $t = 4.972 > 1.96$, $p < 0.001$).

Table 3. Results of structural model.

Structural relationships		Standard- ized Coefficient	S.E.	t-value	95% CI	
					LLCI	ULCI
Main effects (direct)	GEE -> WOM	0.018	0.056	0.323	- 0.083	0.135
	GSE -> WOM	0.087	0.049	1.797	- 0.007	0.181
	GSO -> WOM	0.176***	0.05	3.499	0.075	0.27
Mediation effects (indi- rect)	GEE -> TWB -> WOM	0.092***	0.027	3.442	0.046	0.151
	GSE -> TWB -> WOM	0.048**	0.02	2.408	0.012	0.089
	GSO -> TWB -> WOM	0.09***	0.023	3.878	0.048	0.138
Moderation Effect	COL×TWB->WOM	0.084**	0.029	2.846	0.026	0.141
Total Effects	GEE -> WOM	0.11**	0.053	2.084	0.014	0.223
	GSE -> WOM	0.135**	0.05	2.686	0.035	0.232
	GSO -> WOM	0.265***	0.052	5.134	0.16	0.362
	TWB -> WOM	0.257***	0.052	4.972	0.153	0.359

Note: **p<.05, ***p<.001

Using bootstrapping with 5000 samples, we assessed the mediating effect of TWB. As shown in Table 3, the three indirect effects exhibit t-values greater than 1.96 and p-values less than 0.001, indicating statistical significance. the confidence intervals for these effects do not include zero, further validating the mediating role of TWB between green tourism experience and tourists' WOM, thereby supporting H1 and H2.

This study examines the moderating role of collectivism on the relationship between TWB and WOM . The interaction between collectivism and TWB significantly enhances WOM ($\beta = 0.084$, $t = 2.846 > 1.96$, $p < 0.05$), with a confidence interval of [0.026, 0.141] that excludes zero. When collectivism is low, the positive influence of TWB on WOM is weaker ($\beta = 0.173$, $p < 0.05$), and when collectivism is high, this positive influence is stronger ($\beta = 0.340$, $p < 0.05$), thereby further supporting H3.

5 Conclusion and Discussion

Drawing on green tourism, experience economy, and environment-behavior relationship theories, this study employs PLS-SEM to explore the mediating role of tourism well-being and the moderating effect of collectivism on the relationship between green tourism experience and tourists' word-of-mouth intentions, using a sample of 427 green tourism participants. The findings are as follows:

1. The dimensions of green tourism experience—emotional, social, and sensory—positively influence tourists' WOM intentions.
2. Tourism well-being mediates the effect of green tourism experience on Word-of-mouth. Green sensory experience offers multi-sensory interaction with natural and social environments, eliciting pleasure and gratification; green emotional experience provides emotional value through resonance and connection; and green social experience fosters deep engagement with local elements, enhancing cultural understanding and social fulfillment. These experiences contribute to immediate enjoyment and happiness, as well as a sense of harmony with nature and environmental contribution, which in turn stimulates WOM and post-tourism loyalty.
3. Collectivist values significantly moderate the relationship between TWB and WOM, with tourists under collectivist influence more inclined to share their personal happiness with their social group, amplifying the collective satisfaction and benefits derived from tourism experiences.

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