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Structural Relationships among Antecedents to Perceived Value of Ecotourism for Sichuan Giant Pandas in China †

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Abstract: The purpose of this study is to investigate causal relationships among interpretation satisfaction, environmental attitudes, place attachment, destination loyalty, and perceived value of ecotourism for tourists visiting the Chengdu Panda Base (CPB) in China. An online and an on-site field survey were administered to respondents aged 50 years old and older who use the Internet relatively little. A total of 243 questionnaires were collected and analyzed. The results drawn from the structural model indicate that, first, the satisfaction level regarding the interpretation service positively affects the balance of nature and place attachment (place dependence and place identity) of tourists. Second, as tourists hold higher regard for the balance of nature and stronger place attachment to a tourist site, they tend to hold a stronger destination loyalty; conversely, anthropocentrism correlates negatively with destination loyalty. Lastly, the results show that the more destination loyalty tourists had, the more highly they valued ecotourism in the CPB, which in turn increased the amount of money they were willing to pay to enjoy the CPB, indicating that destination loyalty positively affects tourists' perceived value of ecotourism.

Keywords: giant panda; ecotourism; interpretation service satisfaction; environmental attitudes; new ecological paradigm; place attachment; destination loyalty; perceived value of ecotourism

1. Introduction

Over the past few decades, tourism has grown steadily, becoming one of the fastest growing industries in the world. Currently, tourism is responsible for 10% of the world's GDP, 1 out of every 10 jobs, and 30% of the world's services trade [1]. While the rapid development of the tourist industry has powerfully boosted economic growth, the destruction of natural landscapes and increases in environmental pollution have also adversely accelerated. A growing conviction that the use and preservation of the natural environment and natural resources on which the industry is primarily dependent must be controlled and managed to meet the needs of future generations has motivated a transition in the industry's paradigm toward a focus on sustainability. Today, tourism does not operate only on the basis of satisfying tourists by meeting short-term needs or creating high value-added economic outcomes. The new paradigm has motivated us to examine environment-oriented tourism

modes and reconstruct the tourism system as one that is environment-friendly and highly sustainable. Thus, ecotourism is an alternative form to achieving the ultimate goal of the tourism system.

The International Ecotourism Society [2] defines ecotourism as "responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education." As Weaver and Lawton ([3], p. 1170) write, "Ecotourism should satisfy three core criteria, i.e., (1) attractions should be predominantly nature based, (2) visitor interactions with those attractions should be focused on learning or education, and (3) experience and product management should follow principles and practices associated with ecological, socio-cultural and economic sustainability." Similarly, Aciksoz, Bollukcu, and Celik ([4], p. 3621) describe ecotourism as "a type of tourism that raises the awareness of administration mechanisms in protected areas, aims to use and maintain natural and cultural values without harming them, and contributes to solving the financial problems of the people living in and around that area." Thus, ecotourism refers to environment-oriented tourism that emphasizes suppression of environmental destruction caused by tourism activities and enhances understanding of environmental protection by investing income generated in community development or environmental preservation. More often than not, ecotourism incorporates communications by professional guides knowledgeable about ethics and recognition of nature conservation [2]. The interpreted communications call mainly for prohibition of damage to particular areas, such as protected areas or facilities subject to natural recreation, and for limiting tourism benefits to avoid damage for the benefit of the protected areas and residents alike [2]. Therefore, ecotourism yields substantial benefit for both the sustainability of nature's contribution to community development and the conservation of the ecosystem [2].

Ecotourism operates in a learning travel mode when tourists observe and study the flora and fauna of a specific area or when their awareness of the ecological characteristics of a specific area is raised [5]. A species of interest to tourists in China is the giant panda. Often called a national treasure by the Chinese, the giant panda is the mascot of the World Wildlife Fund (WWF), thus serving as a symbol for wildlife conservation throughout the world. Indigenous only to China, it is a flagship species, critical for biodiversity and ecosystem conservation.

However, the species has become vulnerable [6]. Its remaining habitat, shrunken from a much wider area in China, currently extends only over part of western China on the mountainous eastern edge of the region, in the Sichuan, Shaanxi, and Gansu provinces [7]. The majority of both international and domestic visitors to Chengdu, Sichuan, come hoping to encounter giant pandas. The Chengdu Research Base of the Giant Panda Breeding Center (Chengdu Panda Base; CPB) was created to simulate the natural habitat of giant pandas for breeding and rearing. The CPB has also contributed to scientific research and tourism, with the ultimate goal of forming a sustainable development model that integrates education, research, and tourism [8].

Although a few research studies and project examples in the current tourism literature relate to the giant panda, most of those studies focus on nature conservation and the protection of biodiversity [9–14]. Research is still lacking on the giant panda as an ecotourism resource. The sole exception is Cui and Lee's recent study on the species in Sichuan based on the contingent valuation method (CVM), in which they estimate the conservation value of Sichuan giant pandas in Sichuan province to be about 141 CNY per person (1 CNY approximately equivalent to 0.15 USD), and the total annual conservation value to be approximately 8.5 billion CNY [15].

As a follow-up to Cui and Lee, this study aims to identify the key determinants of the perceived value of actual ecotourism opportunity in CPB. Perceived value is the underpinning construct for evaluating eco-tourism experiences from the tourist perspective [16]. Specifically, the evaluation of the use experience depends on how valuable the content is perceived to be [17]. Accenting perceived value provides a pivot for attracting responsible tourists who share common values; hence, the construct has practical implications for marketing eco-travel to tourists [18]. According to Smith and Wright [19] and Srinivasan, Anderson, and Ponnavolu [20], customer loyalty is a predecessor to boosting sales and willingness to pay. The present study also uses willingness to pay to measure

perceived value, based on Chen and Funk's [21] argument that the attitude formation generated by the positive travel experience stimulates an intention to revisit, and place attachment is an antecedent to destination loyalty [22]. In addition, satisfaction with interpretation service is an antecedent to attitude and place attachment [23–26]. Consequently, based on prior studies, this study involves the following research goals relevant to managing, operating, promoting and activating eco-tourism. Specifically, the purpose of this study is to investigate the structural relationships among interpretation satisfaction, environmental attitudes, place attachment, destination loyalty, and perceived value of ecotourism among tourists who visited the CPB. Accordingly, the study aims to (1) examine the effect of interpretation satisfaction on environmental attitude; (2) ascertain the effect of satisfaction with interpretation service on place attachment; (3) investigate the effect of environmental attitudes on destination loyalty; (4) examine the impact of place attachment on destination loyalty; and (5) explore the impact of destination loyalty on the perceived value of visiting the CPB.

The findings of this study are important in two ways: First, beyond the estimation of conservation of the giant panda, the actual monetary value one is willing to pay for an ecotourism opportunity in the CPB is predicted by key determinants, including satisfaction with the interpretation program, environmental attitudes, place attachment, and destination loyalty. Second, the interplay of these precursors to destination loyalty, a direct predictor of the amount of money visitors are willing to pay, is examined to increase understanding of designing and managing interpretation programs, promoting environment awareness among visitors, and managing fragile areas and objects without depriving visitors of the opportunity to enjoy great aspects of nature.

The structure of this study is as follows. In the following Section 2, previous studies are reviewed and the research hypotheses and research model are presented. In Section 3, the measurement method of variables is presented, the study site is introduced, and the data collection and structural equation model analysis method are described. In Section 4, the measurement model and empirical analysis results are presented. Section 5 presents conclusions, implications, and future research.

2. Theoretical Background, Research Hypotheses and Model

Among the limited empirical research so far conducted on conservation and protection of the giant panda [9–14], only a few studies have examined giant pandas as an ecotourism resource and evaluated their conservation value [15]. This study follows up on them and examines the key determinants of the perceived value as Pandža Bajs [16] maintained, giving a theoretical framework to evaluate the value of eco-tourism.

A particular focus comes from Kim and Park [18], who showed that perceived value can be an effective application in destination marketing in terms of eco-travel. This study represented actual monetary value as willingness to pay (WTP) to evaluate perceived value, and it included destination loyalty, environmental attitudes, place attachment, and satisfaction for interpretation service as key variables. Other studies [19,20] have found customers' loyalty to be strongly related to willingness to pay. The premise that attitude affects destination loyalty is supported in Chen and Funk [21] and Prayag and Ryan [22]. In addition, several studies identify satisfaction with the interpretation program as an antecedent of attitude [23,24] and place attachment [25,26].

The purpose of this study is to explore the structural relationship among interpretation satisfaction, environmental attitudes, place attachment, destination loyalty, and perceived value of ecotourism. First, satisfaction with interpretation service is assumed to affect environmental attitude. This study tests the effect of an interpretation program on environmental attitudes of tourists, which encompass a balance of nature and anthropocentrism, as proposed by Dunlap and Van Liere [27]. Second, satisfaction with the interpretation service is believed to exert a positive influence on place attachment. Place attachment as operationalized in previous studies is composed of place dependence and place identity [28–30]; this study uses these two latent variables of place attachment. Third, environmental attitude is assumed to influence destination loyalty. Fourth, place attachment also is hypothesized to influence destination loyalty. Lastly, destination loyalty affects the perceived value of ecotourism.

2.1. Satisfaction with Interpretation Service and Environmental Attitudes

Advocates of ecotourism believe that interpretation services can help to establish an educational and motivational foundation that helps mitigate the negative impacts of tourism and supports environmental conservation and social improvement [31]. Ecotourism participants can exert both direct and indirect impacts on the environment, depending on individual attitudes toward natural objects and the environment encountered. Attitude is defined by Fishbein and Ajzen [32] as a latent disposition or tendency to respond with some degree of favorableness or un-favorableness to a psychological object. Because they affect environmental impact, tourists' attitudes toward nature and the ecosystem constitute the most fundamental element for the sustainability of ecotourism.

Studies on tourists [23,31,33–35] show that interpretation programs for visitors convey not only environmental knowledge and information but also the importance of natural resources and tourists' behavior codes on the natural environment, which in turn enhances understanding and awareness of the environment on the part of tourists and leads to changes in tourists' cognition and attitudes toward nature. Moscardo [23] reviews the features of an interpretive encounter and considers how interpretation programs influence visitor knowledge, enjoyment, and attitudes for the conservation of the ecosystem. Her analysis renders strong evidence for the notion that a properly programmed interpretation can foster more conservation-oriented attitudes and behaviors among visitors [23]. Similarly, Zeppel's [36] meta-analysis on marine wildlife argues that interpretive or educational program provided by marine wildlife tours can increase visitor understanding of on-site marine species as well as enriching emotional responses to marine wildlife. Subsequently, the enhanced environmental awareness of tourists can lead to off-site conservation activities or the protection of endangered animals and plants. Walker and Moscardo [24] show that ecotourism potentially contributes to sustainability; specifically, they found that an interpretive program brought changes to visitors' beliefs, attitudes, and behaviors regarding the sustainability of nature.

Based on previous studies, this study hypothesizes that satisfaction with interpretive programs positively impacts the environmental attitudes of tourists. Specifically, visitors' level of satisfaction with the interpretations offered by the CPB positively affects their attitudes toward the environment, measured by a six-item NEP scale, as proposed by Dunlap and Van Liere [27] and used in other studies [37,38]. In short, we predict that:

H1a. *Satisfaction with the interpretation service has a positive impact on the balance of nature.*

H1b. *Satisfaction with the interpretation service has a negative impact on anthropocentrism.*

2.2. Satisfaction with Interpretation Service and Place Attachment

Place attachment refers to the process through which humans form emotional ties to a place [39]. As for the dimensionality of place attachment construct, there is no consensus among researchers. Typically, the construct has been identified with two distinct dimensions—place identity and place dependence [28]; the former represents a symbolic value or identification and refers to the affective attachment to a place, and the latter refers to a functional attachment and is a perceived value of the specific place to the tourist [40].

Hwang, Lee, and Chen's [41] study of Taiwan National Park demonstrates a significant link between place attachment and interpretation satisfaction. Interpretation services enhance tourists' understanding and enjoyment of the significance of tourism resources. Commentaries on resources, communication and interactions during the interpretation, and emotional responses toward the environment evoked by interpretation services, led to stronger place attachment among participants. These findings are important in that the primary goal of interpretation is to aid visitors in developing a sense of place [25]. Similarly, after testing the effect of interpretation on sense of place, Morgan [26] found that a naturalist-led program was effective in enhancing the visitors' sense of place with respect to place identity and place attachment.

Interpretation satisfaction—which can be attained through the description of tourism resources, through the interaction by means of questions and answers during commentaries, or through a mutual understanding established by attending the commentary—can possibly cultivate a sense of attachment to tourism resources and its location. However, the relationship between interpretation satisfaction and place attachment has not been deeply examined in tourism studies. This study assumes that place attachment is composed of two distinct entities, place dependence and place identity [28–30], and researches those entities. Hence, we advance the following hypotheses:

H2a. *Satisfaction with interpretation service has a positive impact on place dependence.*

H2b. *Satisfaction with interpretation service has a positive impact on place identity.*

2.3. Environmental Attitudes and Destination Loyalty

Loyalty is frequently considered in terms of customers' repeat purchase behavior sparked by their emotional commitments or favorable attitudes [42]. According to Sun, Chi, and Xu [43], destination loyalty has proven a reliable indicator of success in hospitality and tourism research. Destination loyalty in tourism literature is defined as the level of a tourist's willingness to recommend a destination [44], or the number of repeat visits [45].

Chen and Funk ([21], p. 253) point out that "the resulting attitude formation generated by a positive travel experience strengthens the psychological connection with the destination and stimulates intention to revisit." We argue in our study that destination loyalty is affected by the environmental attitudes of tourists. Further research is required to bolster this claim since nature-based tourism studies have rarely examined the relationship between the environmental attitudes of tourists and destination loyalty. In this study, destination loyalty is reflected in tourists' overall satisfaction, intention to revisit, and willingness to recommend a destination. We posit the following hypotheses:

H3a. *Balance of nature has a positive impact on destination loyalty.*

H3b. *Anthropocentrism has a negative impact on destination loyalty.*

2.4. Place Attachment and Loyalty Intentions

Ramkissoon, Smith, and Weiler [46] studied the relationship between destination satisfaction and place attachment and confirmed a positive correlation. Yuksel, Yuksel, and Bilim [39] examined place attachment and tourist loyalty with structural equation modeling and found that place attachment can directly affect destination loyalty, and that tourist satisfaction can also indirectly but significantly affect destination loyalty.

Similarly, Prayag and Ryan's [22] study shows that place attachment is an antecedent to destination loyalty in terms of mediating a tourist's satisfaction. Investigating the relationship between place attachment and destination loyalty, Alexandris, Kouthouris, and Meligdis [47] applied a regression analysis to find a significant positive effect of place attachment on loyalty, explaining 42% of the variance in loyalty. Both of the place attachment dimensions (place identity and place dependence) offered significant contributions. All of the studies reviewed here support the hypothesis that an incremental increase in place attachment is associated with a higher possibility of tourist satisfaction, re-visitation, or recommendation of the destination to others. Therefore, this study measures visitors' attachment to the CPB and analyzes how place attachment can affect destination loyalty.

The most popular definition of loyalty is that of Oliver ([48], p. 34): "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior." In the tourism field, positive experiences had by visitors, intentions of tourists to return to the same destination, and positive word-of-mouth to friends and/or

relatives have been considered adequate measures for assessing tourist loyalty [22,49,50]. In this study, following Bui and Le [49], we hypothesize the following:

H4a. *Place dependence has a positive impact on destination loyalty.*

H4b. *Place identity has a positive impact on destination loyalty.*

2.5. Destination Loyalty and Perceived Value of Ecotourism

A customer's perceived value can be defined as "the consumer's overall assessment of the utility of a product based on perceptions of what is received and what is given" ([51], p. 14), which is the most universally accepted definition [52]. Perceived value involves balancing benefits and sacrifices [51], in which benefits include product reliability, service quality, and convenience, and sacrifices can be monetary and non-monetary (i.e., time and money spent) [53,54]. Customer loyalty in marketing studies is often operationalized by purchase intention, a proxy measure of the construct that positively affects a company's sales.

Marketing research suggests that customer loyalty can positively influence a company's sales revenue. According to a study by Smith and Wright [19], an increase in the z-score of a company's sales (from 5 to 8) is linearly proportional to the unit increase of the purchase intention z-score by a factor of 36. In plainer terms, a unit standard deviation jump in customer loyalty would yield a 500$ million growth in the company's quarterly sales. Similarly, according to Vogel, Evanschitzky, and Ramaseshan [55], customer perceptions are related to loyalty, which is also presumed to be positively correlated with a company's future sales. A study on virtual venue by Srinivasan, Anderson, and Ponnavolu [20] reaches a similar conclusion, that, even in online business-to-consumer markets, e-loyalty boosts willingness to pay.

Consequently, destination loyalty may contribute to an increase in visitors' perceived value. In the context of this paper, the perceived visitation value of ecotourism was measured by estimating the visitors' actual willingness to pay for the ecotourism experience at the CPB. Based on what has been discussed so far, we propose the following hypotheses:

H5. *Destination loyalty has a positive impact on perceived value of visiting CPB.*

Figure 1 presents the research model that investigates the structural relationships of interpretation service satisfaction, environmental attitudes (balance of nature and anthropocentrism), place attachment (place dependence and place identity), destination loyalty, and perceived value of ecotourism.

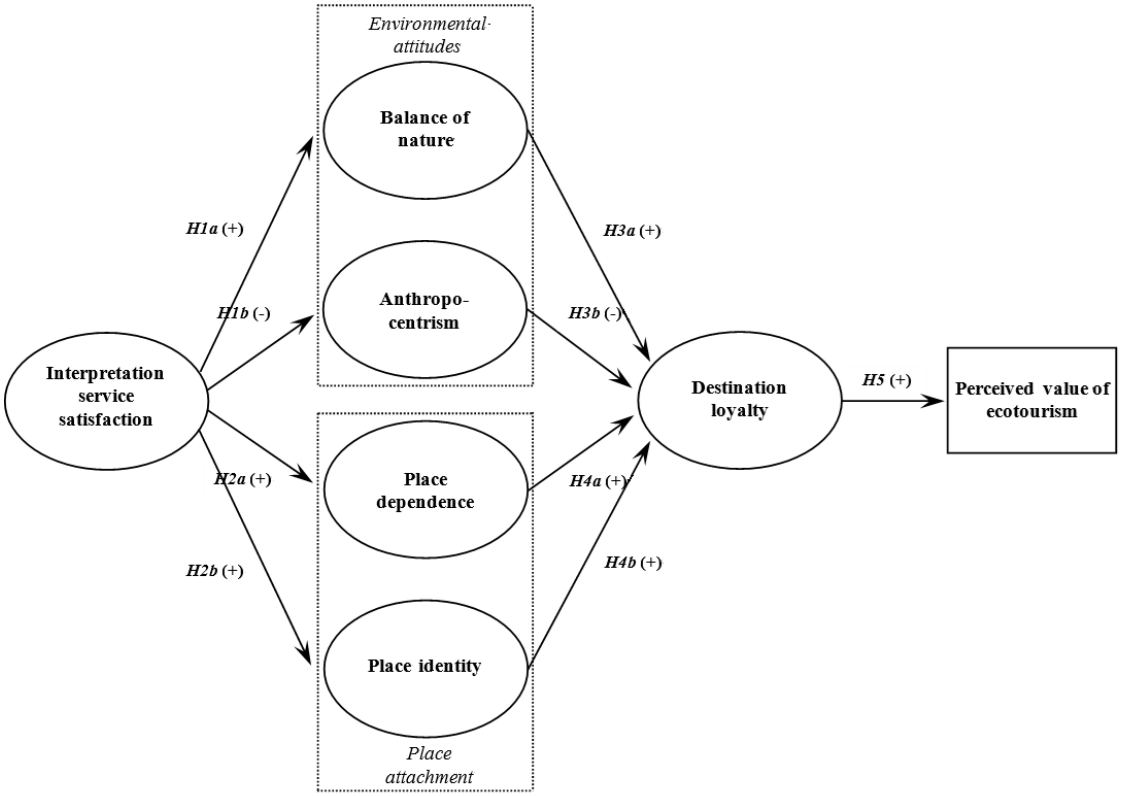

Figure 1. A research model for the structural relationships of interpretation service satisfaction, environmental attitudes, place attachment, destination loyalty, and perceived value of ecotourism.

3. Methodology

3.1. Measurement

In this study, all latent variables were measured using a Likert 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree), except for the perceived value of ecotourism, which was measured using a ratio scale. The measurement scales for the concepts of this study were derived from various past studies. The four items for interpretation satisfaction were taken from Moon [56], Park and Kim [57], and Chun and Lim [58]. Six items relating to environmental attitudes from the new ecological paradigm (NEP) scale [37,38,59], eight items for place attachment [60–63], and three items for destination loyalty [22,49,64] were adopted with minor adjustments to fit the context of this study. The perceived value of visiting the CPB was measured by asking respondents this question: If you were asked to monetarily evaluate your ecotourism experience in Chengdu Panda Base, how much would it be?

3.2. Survey Site

The selected study area was China's Sichuan province. Sichuan is situated in the southwest region of China. Over 70% of wild giant pandas are found in that province. As of 2016, the province is 486,000 km^2 in area with a population of 82.62 million [65]. Sichuan has many attractions; the most famous of which is the giant panda. The CPB, famous for its giant panda breeding and research center, is located in Chengdu, Sichuan. The center contains ecological parks that were constructed with the hope of helping the disappearing giant pandas grow in an optimal, protected environment. The park attracts hundreds of thousands of visitors a year.

The study site is the CPB, which is in Sichuan province, the nearest metropolitan area to the panda's natural habitat at 70 miles away, and. Established in 1987, the panda base aims to protect the

endangered giant pandas and facilitate researching, breeding, and conserving the species (Chengdu Research Base of Giant panda Breeding, 2017). The sanctuary is supported by the Ministry of Housing and Urban-Rural Development, the State Forestry Administration, and the China Wildlife Conservation Association [8]. The CPB has improved the procedures for artificial reproduction and increased the giant panda population. Now the CPB has become a major research institution for the preservation of endangered wild animals with respect to breeding and research, as well as a site for implementing conservation education for tourists [8].

3.3. Data Collection

Data were collected online from May 11 to 26, 2015 from residents of Sichuan, China. The online survey was administered by a professional Internet survey company, which has more than 2.6 million panels across China. Samples were constructed using the quota sampling method based on the age and gender ratios of Sichuan's population. Two screening criteria were used in selecting the target respondents: (1) aged 18 and above, and (2) participation in an interpretation program at the CPB. The online nature of the survey led to a potential under-representation of a certain age cohort, those aged 50 and above, given that, according to the China Internet Network Information Center, Internet users aged 10–49 account for 88.25% of the total number of users, while those aged 50–59 account for 5.3%, and Internet users aged 60 and older account for 3.9%. Therefore, an on-site field survey was also conducted of participants aged 50 and over who made little use of the Internet [66]. The field researchers approached the target respondents to explain the purpose of the research project and invited them to participate in the survey. Respondents who agreed were given a self-administered questionnaire. Upon completion of the survey, a small gift was rendered to the participants. A total of 243 questionnaires were used for empirical analysis of this study. Of these, 188 were online surveys and 55 were field surveys for individuals 50 years old or older. Before merging the data from the two surveys, we examined thoroughly to check for any disparities between them with respect to demographics and the key variables. No evidence suggested that these two method groups differed.

Table 1 presents the demographic characteristics of the respondents. The proportion of female (49.4%) and male (50.6%) respondents was nearly equal. A large portion of the respondents were white collar workers (35%), followed by technicians (13.2%), civil servants (11.1%), students (10.7%), sales/service workers (9.9%), self-employed/owner (9.1%), professionals (5.3%), agricultural/marine workers (2.1%), others (2.1%), and housewives (1.6%). Most respondents reported their monthly income as either being less than 5000 CNY (43.6%) or 5000–10000 CNY (41.2%), while a small proportion reported incomes of more than 10,000 (7.8%). Slightly more than 7% of the respondents reported no income. Ages of the respondents were evenly distributed; respondents were in their 20s (25.9%), 30s (26.7%), 40s (24.7), and 50s (22.6%). 68.7% of the respondents had a university/college level education followed by respondents who had completed graduate school (16.9%), and fewer than 15% reported high school or lower levels of education (14.4%). Respondents with a university/college level education accounted for nearly 70% of all respondents. This study used only data from respondents who received interpretation services at the CPB. Perhaps a higher level of education equated to a higher interest in environmental issues.

Table 1. Subject profile.

Characteristics	Frequency (n)	Percent (%)
Gender		
Male	123	50.6
Female	120	49.4
Age (years)		
Under 30	63	25.9
30–39	65	26.7
40–49	60	24.7
50 and older	55	22.6
Education level		
High school or less	35	14.4
Colleague or university	167	68.7
Graduate school	41	16.9
Job		
White collar	85	35.0
Self-employed/owner	22	9.1
Civil servant	27	11.1
Agricultural/marine workers	5	2.1
Professional	13	5.3
Housewife	4	1.6
Technician	32	13.2
Sales/service	24	9.9
Student	26	10.7
Others	5	2.1
Monthly Income (CNY)		
No income	18	7.4
Less than 5000	106	43.6
5000–10,000	100	41.2
More than 10,000	19	7.8

3.4. Data Analysis

The data were analyzed using the structural equational modeling (SEM) technique for testing research models and hypotheses. The two-stage testing procedure recommended by Anderson and Gerbing [67] was used. First, a confirmatory factor analysis (CFA) was performed to determine model fit, and convergent validity and discriminant validity were examined to determine the validity of the measurement model. Next, the structural model was estimated to investigate the causal relationship between variables, and hypotheses were also verified using the results. Our study utilized the following fit statistics for the assessment of the measurement and structural models: χ^2(df), χ^2/df; standardized root mean square residual (SRMR); root mean square error of approximation (RMSEA, (90% confidence interval, CI)), incremental fit index (IFI); Tucker–Lewis index (TLI); and comparative fit index (CFI).

4. Results

4.1. Measurement Model

As shown in Table 2, the measurement model had χ^2(df) = 334.004 (174), χ^2/df = 1.920; SRMR = 0.063; RMSEA (90% CI) = 0.062 (0.052; 0.072); IFI = 0.928; TLI = 0.912; and CFI = 0.927. Acceptable fit indices for χ^2/df, SRMR, RMSEA, IFI, TLI, and CFI are <3, $\leq$0.08, $\leq$0.08, $\geq$0.9, $\geq$0.9, and $\geq$0.9, respectively [68,69]. Therefore, these model fit indices demonstrated that the data were at an acceptable fit to the model.

Table 2. Confirmatory factor analysis results.

Constructs and Measurement Items	Standardized Loadings	*t*-Values	AVE	CR (Alpha)
Interpretation service satisfaction			0.668	0.889 (0.830)
Overall, I am satisfied with the interpreting service	0.755	11.555		
I believe I did the right thing in choosing to use the interpreting service	0.684	10.397		
I will recommend the interpreting service to others	0.752	11.507		
I will reuse the interpreting service	0.773	–		
Balance of nature			0.484	0.736 (0.570)
The balance of nature is very delicate and easily upset	0.503	–		
Humans must live in harmony with nature to survive	0.591	5.122		
When humans interfere with nature, it often produces disastrous consequences	0.641	5.188		
Anthropocentrism			0.597	0.816 (0.850)
Humanity was created to rule over the rest of nature	0.872	–		
Plants and animals exist primarily to be used by humans	0.81	13.156		
Humans have the right to modify the natural environment to suit their needs	0.749	12.293		
Place dependence			0.589	0.811 (0.722)
For me, the CPB cannot be replaced by other destinations	0.658	8.835		
I like to visit the CPB more than other destinations	0.671	8.984		
The facilities and environment here (in the CPB) are better than at other destinations	0.721	–		
Place identity			0.616	0.888 (0.856)
The CPB means a lot to me	0.603	9.584		
I am attached to the CPB	0.658	10.628		
I feel like the CPB is a part of me	0.804	–		
I identify strongly with the CPB	0.803	13.572		
Visiting the CPB says a lot about who I am	0.826	14.047		
Destination loyalty			0.682	0.865 (0.760)
Overall, I am satisfied with the visiting CPB	0.684	9.901		
I will revisit the CPB	0.706	10.211		
I will recommend visiting the CPB to someone	0.761	–		
Model fit statistics				
χ^2(df) = 334.004(174), χ^2/df = 1.920; SRMR = 0.063; RMSEA (90% CI) = 0.062 (0.052; 0.072); IFI = 0.928; TLI = 0.912; CFI = 0.927				

Notes: All loadings are significant at $p < 0.01$. CPB = Chengdu Panda Base; AVE = average variance extracted; CR = composite reliability; SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; IFI = incremental fit index; TLI = Tucker-Lewis index; CFI = comparative fit index; CI = confidence interval.

Convergent validity can be confirmed when factor loadings are no less than 0.5 or *t*-values are significant [70], average variance extracted (AVE) is no less than 0.5 [70], and CR is no less than 0.7 [70]. Table 2 shows that factor loadings met the required standard and were statistically significant. The AVE of all variables excluding the balance of nature (0.484) was found to exceed the required standards. The AVE of the balance of nature was less than 0.5; however, convergent validity is still sufficient because the number of observed variables is no less than three [71]. Huang, Wang, Wu, and Wang [72] also suggested that convergent validity is acceptable when AVE is less than 0.5 but CR is greater than 0.6. Therefore, the convergent validity of the constructs is still sufficient. Cronbach's α ranged from 0.570 to 0.856, and composite reliability (CR) ranged from 0.736 to 0.889. These indicators showed that the latent variables were highly reliable except for balance of nature [71]. However, CR is a better indicator than Cronbach's α when the error variance is taken into account [70,73]. These findings showed that convergent validity was achieved (e.g., [68]).

For testing discriminant validity of the study variables, following Fornell and Larcker's [70] criterion, we compared the square roots of the AVE with correlation between pairs of latent constructs. The results, shown in Table 3, revealed that the correlations between pairs of latent variables were less than the square root of the AVE in all cases. This confirmed the discriminant validity of the constructs. Means, standard deviations, and correlations of observed variables are given in Table 4.

Table 3. Discriminant validity test results.

Variables	1	2	3	4	5	6
1. Interpretation service satisfaction	[0.817]					
2. Balance of nature	0.263 **	[0.700]				
3. Anthropocentrism	−0.080	−0.388 **	[0.773]			
4. Place dependence	0.713 **	0.384 **	−0.143	[0.767]		
5. Place identity	0.760 **	0.313 **	−0.037	0.755 **	[0.785]	
6. Destination loyalty	0.715 **	0.512 **	−0.362 **	0.764 **	0.687 **	[0.826]

Notes: Correlations among study variables are presented in the lower off diagonal, and the square roots of average variance extracted values are presented along the diagonal. ** $p < 0.01$.

Table 4. Descriptive statistics and correlations of observed variables.

Variables	1	2	3	4	5	6
1. Interpretation service satisfaction	1.000					
2. Balance of nature	0.214 **	1.000				
3. Anthropocentrism	−0.058	−0.265 **	1.000			
4. Place dependence	0.551 **	0.267 **	−0.103	1.000		
5. Place identity	0.648 **	0.286 **	−0.037	0.622 **	1.000	
6. Destination loyalty	0.570 **	0.377 **	−0.284 **	0.570 **	0.577 **	1.000
Mean	4.007	4.440	2.141	4.065	3.846	4.182
Standard deviation	0.639	0.533	1.007	0.630	0.727	0.581

Note: ** $p < 0.01$.

4.2. Structural Model

As depicted in Figure 2, all of the fit indices of the structural model met the criteria with χ^2(df) = 385.462 (199), χ^2/df = 1.937; SRMR = 0.075; RMSEA (90% CI) = 0.062 (0.053; 0.071); IFI = 0.918; TLI = 0.904; and CFI = 0.917.

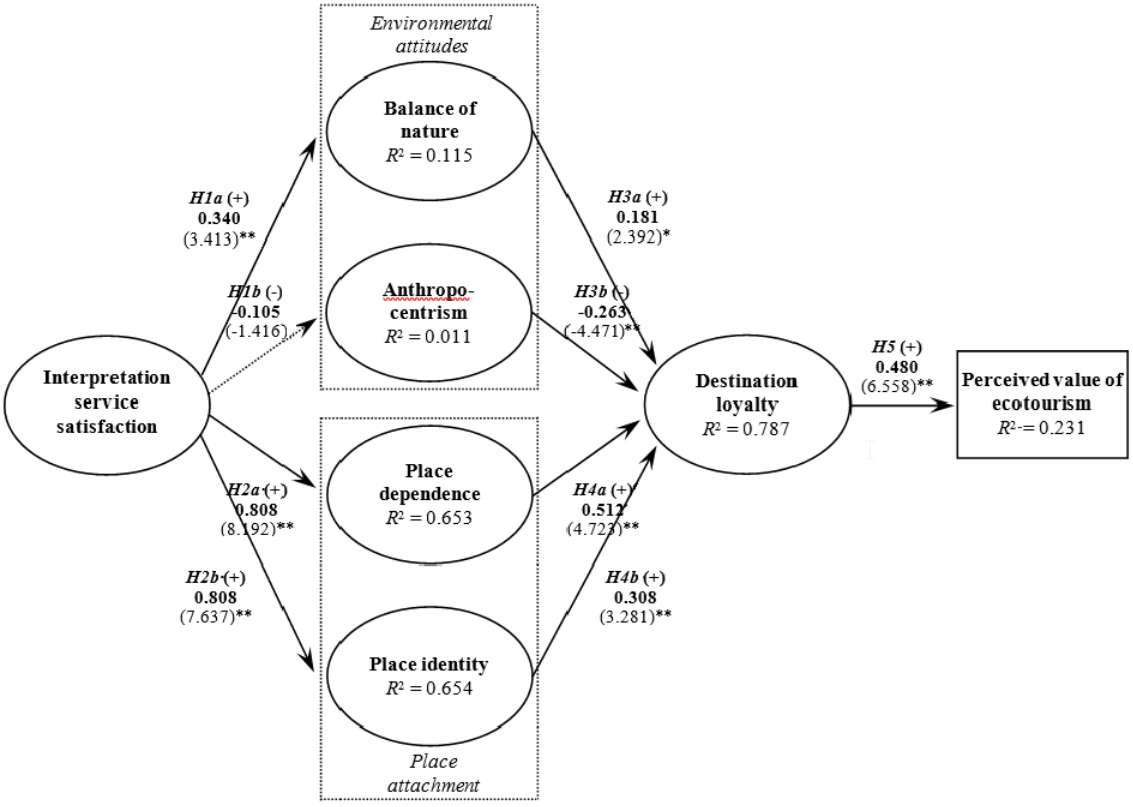

Figure 2. Structural model and hypotheses test results for the structural relationships among interpretation service satisfaction, environmental attitudes, place attachment, destination loyalty, and perceived value of ecotourism. Model fit statistics χ^2(df) = 385.462(199), χ^2/df = 1.937; SRMR = 0.075; RMSEA (90% CI) = 0.062 (0.053; 0.071); IFI = 0.918; TLI = 0.904; CFI = 0.917 Notes: SRMR = standardized root mean square residual; RMSEA = root mean square error of approximation; IFI = incremental fit index; TLI = Tucker-Lewis index; CFI = comparative fit index; CI = confidence interval. * $p < 0.05$, ** $p < 0.01$.

The hypotheses tests showed that interpretation service satisfaction exerted a positive effect on balance of nature (β = 0.340, t = 3.413, $p < 0.01$), supporting H1a. However, interpretation service satisfaction did not affect anthropocentrism, disconfirming H1b. Interpretation service satisfaction was positively related to place dependence (β = 0.808, t = 8.192, $p < 0.01$) and place identity (β = 0.808,

$t = 7.637$, $p < 0.01$); therefore, H2a and H2b were supported. As predicted, balance of nature had a positive effect on destination loyalty (β = 0.181, $t = 2.392$, $p < 0.05$). Anthropocentrism has a negative effect on destination loyalty (β = -0.263, $t = -4.471$, $p < 0.01$). Therefore, H3a and H3b were supported. Place dependence (β = 0.512, $t = 4.723$, $p < 0.01$) and place identity (β = 0.308, $t = 3.281$, $p < 0.01$) also had positive effects on destination loyalty. Hence, H4a and H4b were also supported. Destination loyalty had a positive effect on the perceived value of ecotourism (β = 0.480, $t = 6.558$, $p < 0.01$), thus supporting H5. The list of hypotheses mentioned in this section is given in Table 5.

Table 5. Summary of hypotheses test results.

Hypotheses	Results
H1a Interpretation service satisfaction → balance of nature (+)	Supported
H1b Interpretation service satisfaction → anthropocentrism (−)	Rejected
H2a Interpretation service satisfaction → place dependence (+)	Supported
H2b Interpretation service satisfaction → place identity (+)	Supported
H3a Balance of nature → destination loyalty (+)	Supported
H3b Anthropocentrism → destination loyalty (−)	Supported
H4a Place dependence → destination loyalty (+)	Supported
H4b Place identity → destination loyalty (+)	Supported
H5 Destination loyalty → perceived value of ecotourism (+)	Supported

5. Discussion and Conclusions

This study has examined the structural relationships among interpretation satisfaction, environmental attitudes, place attachment, destination loyalty, and the perceived value of ecotourism among visitors to the CPB who participated in the facility's interpretation program. The discussion of results is as follows. First, satisfaction with ecotourism interpretation has a positive effect on balance of nature, a main domain of environmental attitude and a construct variable. The results confirm the results of previous studies that investigated the causal relationship between interpretation programs and environmental attitudes [31,74,75]. On the other hand, interpretation satisfaction has no effect on anthropocentrism. Satisfaction with ecotourism interpretation may not be sufficient to change the anthropocentrism of tourists. Previous studies asserted that there is a limit to changing the human-centered attitude of tourists. Similarly, Hughes, Ham, and Brown [72] found that for visitors to two Australian park sites interpretation increased compliance to desired behaviors but did not affect salient beliefs and corresponding attitudes. Hvenegaard [74] showed that only 69% of them agreed that interpretation increased their awareness of environmental issues and only 61% indicated an increase in their desire to help the environment. Therefore, it seems that temporal interpretation is limited in its influence on visitors who are initially anthropocentric. All these findings suggest that for long-term change in visitors' anthropocentric view of nature, more than temporal interpretational programs is needed; educational programs for children and citizens, coupled with on-going campaigns, must be implemented and executed persistently.

Secondly, tourists' satisfaction with ecotourism interpretations has a positive effect on place attachment. For instance, Hwang, Lee, and Chen [41]'s Taiwan National Park study revealed that place attachment indirectly and positively affects interpretation satisfaction, but the study failed to mention the effect of interpretation satisfaction on place attachment. The results of the current study suggest that satisfaction with ecotourism interpretations has a positive effect on place attachment in terms of place identity and place dependence.

Third, balance of nature, place dependence, and place identity have positive effects on destination loyalty. Also, as hypothesized, anthropocentrism has a negative effect on destination loyalty. These results concur with those of several previous studies [39,46] that investigated the positive relationship between place attachment and destination loyalty, although since few empirical studies on nature-based tourism have been conducted to investigate the relationship between tourist environmental attitudes and destination loyalty, we must exercise caution in interpreting this result. As a more definite

conclusion, the results of the analysis show that the higher tourists regard balance of nature and the stronger their attachment is to the tourist destination, the stronger the tourists' destination loyalty. In other words, the less anthropocentric tourists are, the stronger their destination loyalty becomes. Finally, destination loyalty has a positive effect on the perceived value of ecotourism, resembling the way that e-loyalty boosted customers' willingness to pay in [20]. The more destination loyalty visitors have, the more value they tend to perceive from the ecotourism opportunity of visiting the CPB.

Conclusively, the results of this study clearly indicate that an interpretation service is a significant activity for tourists to raise their environmental attitude and place attachment. These effects in turn yield increased destination loyalty and perceived value of eco-tourism, so this study supports Oram's [76] conclusion that interpretation programs help resource management to increase the perceived value of eco-tourism. In addition, this study also indicates that enhancing tourists' environmental attitude and place attachment is fundamental in developing sustainable eco-tourism system, as previous research proposes [21].

This study has several implications. First, satisfaction with ecotourism interpretation is a variable that influences the balance of nature, which means that visitors' interest in the balance between the environment and nature is increasing and that tourists' desire to experience qualified ecotourism interpretations is getting stronger. In order to meet this increasing desire of visitors, the ecotourism interpretations provided should be improved. Second, interpretation satisfaction is a variable that affects place attachment, which also implies that the quality of ecotourism interpretations should be enhanced to strengthen attachment to destinations. Third, visitors' attitudes toward the environment and their attachment to tourist sites are important variables for destination loyalty, which means that visitors' environmental attitudes formed by ecotourism interpretation satisfaction and place attachment can be an antecedent to destination loyalty. Visitors' environmental attitude and destination attachment can contribute to the revitalization of ecotourism by enhancing tourists' loyalty to the destination and their perceived value of ecotourism. Therefore, it is important to solidify visitors' attitudes toward nature and their attachment to destinations in terms of their satisfaction with the interpretation programs conducted in ecotourism destinations.

Practical implications concern various aspects of marketing and training. In terms of a marketing approach, companies and corporations can develop programs that direct visitors' attention toward environmental issues or marketing plans to communicate with them. It is necessary to activate ecotourism interpretation services to a degree that will provide customized services to a wide range of age groups, from children to the elderly, and expectancy levels. Namely, the content of interpretations should be precise, educational, and mindful, and should be delivered effectively, such as by storytelling or through an entertainment device. Publicity prior to the journey is also necessary for tourists to have the necessary information on ecotourism interpretation programs. In addition, making it a mandatory for visitors to watch a film that contains environmental issues and conditions of the fragile areas before they enter the site would reinforce the effects of on-site interpretational service. Considering modes of travel, traveling with a small number of tourists rather than in a large group is preferred, so the marketing strategy should be targeted at personalized tours of medium or small sizes, and small individual groups. In addition, the operation of training programs or continuing education programs for interpreters, in addition to the interpretation programs, should be properly implemented with specialized teaching staff and professional instructors. Through diverse ecotourism programs and professional interpretations, visitors will gain educational experiences that will reinforce their environmental awareness, leading to ecotourism, which will in turn create sustainable tourism. Given the clear link between place attachment and destination loyalty toward Sichuan, it will be a fruitful strategy to develop marketing promotions pointing toward the creation of sense of place by incorporating Sichuan's unique culture with the natural resources of the giant panda's habitat. This strategy should provide a unique destination experience enhancing the sense of place, which will develop destination loyalty towards Sichuan. In conclusion, the significance of this study lies in its examination of the relationships between interpretation satisfaction and place attachment,

environmental attitude and destination loyalty, and destination loyalty and the perceived value of ecotourism, which have not been clarified in previous ecotourism research. This examination extends the ecotourism research framework.

There are a few limitations to be noted. First, this study was conducted using the CPB and a sample size limited to the residents of Sichuan province, which undoubtedly restricts the generalizability of the results. In addition, the objectivity and generality of the study have been slightly weakened by using subset data extracted from respondents who visited the CPB and experienced ecotourism interpretation in Cui [77]. The probability sampling method is suggested for future studies in order to extend the boundaries of the empirical analysis and secure the normality of the sample. Lastly, in several studies, perceived value was composed of three to five sub-concepts to confirm causality between variables; future studies can interpret the analysis results more concretely and meaningfully by using perceived value composed of sub-concepts [78–80].

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References

1. World Tourism Organization (UNWTO). Tourism: Growth Is Not the Enemy; It's How We Manage It That Counts. Available online: http://media.unwto.org/press-release/2017-08-15/tourism-growth-not-enemy-it-s-how-we-manage-it-counts (accessed on 17 December 2017).
2. TIES. What Is Ecotourism? Available online: http://www.ecotourism.org/what-is-ecotourism (accessed on 17 December 2015).
3. Weaver, D.B.; Lawton, L.J. Twenty years on: The state of contemporary ecotourism research. *Tour. Manag.* **2007**, *28*, 1168–1179. [CrossRef]
4. Aciksoz, S.; Bollukcu, P.; Celik, D. Ecotourism and ethics in protected areas: Bartin-Sogutlu village. *Oxid. Commun.* **2016**, *39*, 3621–3636.
5. Reimer, J.K.; Walter, P. How do you know it when you see it? Community-based ecotourism in the Cardamom Mountains of southwestern Cambodia. *Tour. Manag.* **2013**, *34*, 122–132. [CrossRef]
6. IUCN. Ailuropoda melanoleuca (Giant Panda). Available online: http://www.iucnredlist.org/details/712/0 (accessed on 17 December 2017).
7. China Highlights. Giant Pandas' Habitat. Available online: https://www.chinahighlights.com/giantpanda/habitat.htm (accessed on 17 December 2017).
8. Chengdu Research Base of Giant Panda Breeding. Chengdu Research Base of Giant Panda Breeding. Available online: http://www.panda.org.cn/english/ (accessed on 17 December 2017).
9. Bearer, S.; Linderman, M.; Huang, J.; An, L.; He, G.; Liu, J. Effects of fuelwood collection and timber harvesting on giant panda habitat use. *Biol. Conserv.* **2008**, *141*, 385–393. [CrossRef]
10. Duan, W.; Wen, Y. Impacts of protected areas on local livelihoods: Evidence of giant panda biosphere reserves in Sichuan province, china. *Land Use Policy* **2017**, *68*, 168–178. [CrossRef]
11. Hu, Y.; Nie, Y.; Wei, W.; Ma, T.; Horn, R.V.; Zheng, X.; Swaisgood, R.R.; Zhou, Z.; Zhou, W.; Yan, L.; et al. Inbreeding and inbreeding avoidance in wild giant pandas. *Mol. Ecol.* **2017**, *26*, 5793–5806. [CrossRef] [PubMed]
12. Liu, J.; Linderman, M.; Ouyang, Z.; An, L.; Yang, J.; Zhang, H. Ecological degradation in protected areas: The case of Wolong nature reserve for giant pandas. *Science* **2001**, *292*, 98–101. [CrossRef]
13. Liu, J.; Ouyang, Z.; Taylor, W.W.; Groop, R.; Tan, Y.; Zhang, H. A framework for evaluating the effects of human factors on wildlife habitat: The case of giant pandas. *Conserv. Biol.* **1999**, *13*, 1360–1370. [CrossRef]
14. Loucks, C.J.; Lü, Z.; Dinerstein, E.; Wang, H.; Olson, D.M.; Zhu, C.; Wang, D. Giant pandas in a changing landscape. *Science* **2001**, *294*, 1465. [CrossRef]
15. Cui, X.; Lee, G. Estimating the conservation value of Sichuan giant panda using a contingent valuation method. *Int. J. Tour. Hosp. Res.* **2018**, *32*, 57–66. [CrossRef]

16. Pandža Bajs, I. Tourist perceived value, relationship to satisfaction, and behavioral intentions: The example of the Croatian tourist destination Dubrovnik. *J. Travel Res.* **2015**, *54*, 122–134. [CrossRef]
17. Eid, R.; El-Gohary, H. The role of Islamic religiosity on the relationship between perceived value and tourist satisfaction. *Tour. Manag.* **2015**, *46*, 477–488. [CrossRef]
18. Kim, K.H.; Park, D.B. Relationships among perceived value, satisfaction, and loyalty: Community-based ecotourism in Korea. *J. Travel Tour. Mark.* **2017**, *34*, 171–191. [CrossRef]
19. Smith, R.E.; Wright, W.F. Determinants of customer loyalty and financial performance. *J. Manag. Acc. Res.* **2004**, *16*, 183–205. [CrossRef]
20. Srinivasan, S.S.; Anderson, R.; Ponnavolu, K. Customer loyalty in e-commerce: An exploration of its antecedents and consequences. *J. Retail.* **2002**, *78*, 41–50. [CrossRef]
21. Chen, N.; Funk, D.C. Exploring destination image, experience and revisit intention: A comparison of sport and non-sport tourist perceptions. *J. Sport Tour.* **2010**, *15*, 239–259. [CrossRef]
22. Prayag, G.; Ryan, C. Antecedents of tourists' loyalty to Mauritius: The role and influence of destination image, place attachment, personal involvement, and satisfaction. *J. Travel Res.* **2012**, *51*, 342–356. [CrossRef]
23. Moscardo, G. *Making Visitors Mindful: Principles for Creating Quality Sustainable Visitor Experiences through Effective Communication*; Sagamore Publishing: Champaign, IL, USA, 1999.
24. Walker, K.; Moscardo, G. Encouraging sustainability beyond the tourist experience: Ecotourism, interpretation and values. *J. Sustain. Tour.* **2014**, *22*, 1175–1196. [CrossRef]
25. Knudson, D.M.; Cable, T.T.; Beck, L. *Interpretation for the 21st Century*, 2nd ed.; Venture: State College, PA, USA, 2003.
26. Morgan, M. Interpretation and place attachment implications for cognitive map theory. *J. Interpret. Res.* **2009**, *14*, 47–59.
27. Dunlap, R.E.; Van Liere, K.D. The "new environmental paradigm". *J. Environ. Educ.* **1978**, *9*, 10–19. [CrossRef]
28. Cheng, T.M.; Wu, H.C.; Huang, L.M. The influence of place attachment on the relationship between destination attractiveness and environmentally responsible behavior for island tourism in Penghu, Taiwan. *J. Sustain. Tour.* **2013**, *21*, 1166–1187. [CrossRef]
29. Suntikul, W.; Jachna, T. The co-creation/place attachment nexus. *Tour. Manag.* **2016**, *52*, 276–286. [CrossRef]
30. Williams, D.R.; Vaske, J.J. The measurement of place attachment: Validity and generalizability of a psychometric approach. *For. Sci.* **2003**, *49*, 830–840.
31. Powell, R.B.; Ham, S.H. Can ecotourism interpretation really lead to pro-conservation knowledge, attitudes and behaviour? Evidence from the Galapagos Islands. *J. Sustain. Tour.* **2008**, *16*, 467–489. [CrossRef]
32. Fishbein, M.; Ajzen, I. *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*; Addison-Wesley: Boston, MA, USA, 1975.
33. Cheung, L.T.; Fok, L. The motivations and environmental attitudes of nature-based visitors to protected areas in Hong Kong. *Int. J. Sustain. Dev. World* **2014**, *21*, 28–38. [CrossRef]
34. Van Dijk, P.; Weiler, B. An assessment of the outcomes of a Chinese-language interpretive tour experience at a heritage tourism attraction. *Tour. Anal.* **2009**, *14*, 49–63. [CrossRef]
35. Xu, H.; Cui, Q.; Ballantyne, R.; Packer, J. Effective environmental interpretation at Chinese natural attractions: The need for an aesthetic approach. *J. Sustain. Tour.* **2013**, *21*, 117–133. [CrossRef]
36. Zeppel, H. Education and conservation benefits of marine wildlife tours: Developing free-choice learning experiences. *J. Environ. Educ.* **2008**, *39*, 3–18. [CrossRef]
37. Knight, A.J. "Bats, snakes and spiders, oh my!" how aesthetic and negativistic attitudes, and other concepts predict support for species protection. *J. Environ. Psychol.* **2008**, *28*, 94–103. [CrossRef]
38. Lee, C.; Mjelde, J.W. Valuation of ecotourism resources using a contingent valuation method: The case of the Korean DMZ. *Ecol. Econ.* **2007**, *63*, 511–520. [CrossRef]
39. Yuksel, F.; Yuksel, A.; Bilim, Y. Destination attachment: Effects on customer satisfaction and cognitive, affective and conative loyalty. *Tour. Manag.* **2010**, *31*, 274–284. [CrossRef]
40. Backlund, E.A.; Williams, D.R. A quantitative synthesis of place attachment research: Investigating past experience and place attachment. In Proceedings of the 2003 Northeastern Recreation Research Symposium, Bolton Landing, NY, USA, 6–8 April 2003.
41. Hwang, S.; Lee, C.; Chen, H. The relationship among tourists' involvement, place attachment and interpretation satisfaction in Taiwan's national parks. *Tour. Manag.* **2005**, *26*, 143–156. [CrossRef]

42. Haywood-Farmer, J. A conceptual model of service quality. *Int. J. Oper. Prod. Manag.* **1988**, *8*, 19–29. [CrossRef]
43. Sun, X.; Chi, C.G.Q.; Xu, H. Developing destination loyalty: The case of Hainan Island. *Ann. Tour. Res.* **2013**, *43*, 547–577. [CrossRef]
44. Chen, J.S.; Gursoy, D. An investigation of tourists' destination loyalty and preferences. *Int. J. Contemp. Hosp. Manag.* **2001**, *13*, 79–85. [CrossRef]
45. Oppermann, M. Tourism destination loyalty. *J. Travel Res.* **2000**, *39*, 78–84. [CrossRef]
46. Ramkissoon, H.; Smith, L.D.G.; Weiler, B. Testing the dimensionality of place attachment and its relationships with place satisfaction and pro-environmental behaviours. *Tour. Manag.* **2013**, *36*, 552–566. [CrossRef]
47. Alexandris, K.; Kouthouris, C.; Meligdis, A. Increasing customers' loyalty in a skiing resort: The contribution of place attachment and service quality. *Int. J. Contemp. Hosp. Manag.* **2006**, *18*, 414–425. [CrossRef]
48. Oliver, R.L. Whence consumer loyalty? *J. Mark.* **1999**, *63*, 33–44. [CrossRef]
49. Bui, H.T.; Le, T. Tourist satisfaction and destination image of Vietnam's ha long bay. *Asia Pac. J. Tour. Res.* **2016**, *21*, 795–810. [CrossRef]
50. Meleddu, M.; Paci, R.; Pulina, M. Repeated behaviour and destination loyalty. *Tour. Manag.* **2015**, *50*, 159–171. [CrossRef]
51. Zeithaml, V. Consumer perceptions of price, quality, and value: A means-end model and synthesis of evidence. *J. Mark.* **1988**, *52*, 2–22. [CrossRef]
52. Gallarza, M.G.; Saura, I.G. Value dimensions, perceived value, satisfaction and loyalty: An investigation of university students' travel behaviour. *Tour. Manag.* **2006**, *27*, 437–452. [CrossRef]
53. Lemon, K.N.; Rust, R.T.; Zeithaml, V.A. What drives customer equity. *Mark. Manag.* **2001**, *10*, 20–25.
54. Rosenbaum, M.S.; Wong, I.A. Value equity in event planning: A case study of Macau. *Mark. Intell. Plan.* **2010**, *28*, 403–417. [CrossRef]
55. Vogel, V.; Evanschitzky, H.; Ramaseshan, B. Customer equity drivers and future sales. *J. Mark.* **2008**, *72*, 98–108. [CrossRef]
56. Moon, C.H. The effect of cultural tourism interpretation on the tourist's satisfaction—Case study of interpretation tour at Jeonju Hanok village. *J. Reg. Stud.* **2008**, *16*, 47–66.
57. Park, C.K.; Kim, S.H. The relationship between culture & tour guide's interpretation and tourist satisfaction and loyalty. *J. Tour. Leis. Res.* **2012**, *24*, 5–23.
58. Chun, J.H.; Lim, Y.W. Relationship between tourism interpretation quality and tourist satisfaction in ecotourism. *J. Korea Acad. Ind. Coop. Soc.* **2016**, *17*, 520–527.
59. Dunlap, R.E. The new environmental paradigm scale: From marginality to worldwide use. *J. Environ. Educ.* **2008**, *40*, 3–18. [CrossRef]
60. Hou, J.; Lin, C.; Morais, D.B. Antecedents of attachment to a cultural tourism destination: The case of Hakka and non-Hakka Taiwanese visitors to Pei-Pu, Taiwan. *J. Travel Res.* **2005**, *44*, 221–233. [CrossRef]
61. Loureiro, S.M.C. The role of the rural tourism experience economy in place attachment and behavioral intentions. *Int. J. Hosp. Manag.* **2014**, *40*, 1–9. [CrossRef]
62. Vaske, J.J.; Kobrin, K.C. Place attachment and environmentally responsible behavior. *J. Environ. Educ.* **2001**, *32*, 16–21. [CrossRef]
63. White, D.; Virden, R.; Van Riper, C. Effects of place identity, place dependence, and experience-use history on perceptions of recreation impacts in a natural setting. *Environ. Manag.* **2008**, *42*, 647–657. [CrossRef] [PubMed]
64. Chi, C.G.; Qu, H. Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. *Tour. Manag.* **2008**, *29*, 624–636. [CrossRef]
65. The People's Government of Sichuan Province. Available online: http://www.sc.gov.cn/10462/wza2012/scgk/scgk.shtml (accessed on 17 December 2017).
66. CNNIC. Statistical Report on the Development of China's Internet. Available online: http://www.cnnic.cn/gywm/xwzx/rdxw/2016/201601/W020160122639198410766.pdf (accessed on 17 December 2017).
67. Anderson, J.C.; Gerbing, D.W. Structural equation modeling in practice: A review and recommended two-step approach. *Psychol. Bull.* **1988**, *103*, 411–423. [CrossRef]
68. Hair, J.F., Jr.; Black, W.C.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis: A Global Perspective*, 7th ed.; Pearson Education: Upper Saddle River, NJ, USA, 2010.

69. Kline, R.B. *Principles and Practice of Structural Equation Modeling*, 3rd ed.; The Guilford Press: New York, NY, USA, 2011.
70. Fornell, C.; Larcker, D.F. Structural equation models with unobservable variables and measurement error: Algebra and statistics. *J. Mark. Res.* **1981**, *18*, 382–388. [CrossRef]
71. Yu, J.P. *Structural Equation Model Concept and Understanding*; Hannarae: Seoul, Korea, 2016.
72. Hughes, M.; Ham, S.; Brown, T. Influencing park visitor behavior, a belief based approach. *J. Park Recreat. Adm.* **2009**, *27*, 38–53.
73. Raykov, T. Estimation of composite reliability for congeneric measures. *Appl. Psychol. Meas.* **1997**, *21*, 173–184. [CrossRef]
74. Hvenegaard, G.T. Visitors' perceived impacts of interpretation on knowledge, attitudes, and behavioral intentions at Miquelon lake provincial park, Alberta, Canada. *Tour. Hosp. Res.* **2017**, *17*, 79–90. [CrossRef]
75. Kim, A.K.; Airey, D.; Szivas, E. The multiple assessment of interpretation effectiveness: Promoting visitors' environmental attitudes and behavior. *J. Travel Res.* **2011**, *50*, 321–334.
76. Orams, M.B. Using interpretation to manage nature-based tourism. *J. Sustain. Tour.* **1996**, *4*, 81–94. [CrossRef]
77. Cui, X. Estimation of Preservation Value of Sichuan Giant Panda and the Effect of Environmental Attitudes and Place Attachment on Use Value of Giant Panda Sanctuaries. Master's Thesis, Kyung Hee University, Seoul, Korea, August 2015. Available online: https://khis-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?docid=82KHU_ALMA21136962880004426&context=L&vid=82KHU&search_scope=alma_thesis&tab=alma_tab&lang=ko_KR.
78. Chen, C.F.; Chen, F.S. Experience quality, perceived value, satisfaction and behavioral intentions for heritage tourists. *Tour. Manag.* **2010**, *31*, 29–35. [CrossRef]
79. Duman, T.; Mattila, A.S. The role of affective factors on perceived cruise vacation value. *Tour. Manag.* **2005**, *26*, 311–323. [CrossRef]
80. Hallak, R.; Assaker, G.; El-Haddad, R. Re-examining the relationships among perceived quality, value, satisfaction, and destination loyalty. *J. Vacat. Mark.* **2018**, *24*, 118–135. [CrossRef]



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