

## Article

# Residents' Attitudes towards Sustainable Tourism Development in a Historical-Cultural Village: Influence of Perceived Impacts, Sense of Place and Tourism Development Potential

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Academic Editor: Rhodri Thomas

Received: 23 November 2016; Accepted: 27 December 2016; Published: 2 January 2017

**Abstract:** This study aims to assess the residents' support for sustainable tourism development in a destination that is in the initial tourism development stage. Residents' perception of sustainable tourism development potential, sense of place, perceived tourism impacts, and tourism development support were involved in this study. A total of 331 completed questionnaire surveys were collected in Luozhou, a historical-cultural village in China. The empirical data were analyzed using a structural equation modeling (SEM) technique, and the results revealed that perceived collective benefits had a significant positive effect on tourism development support, whereas the other three perceived impacts' influence were not significant. The relationship between residents' sense of place and perceived collective and personal benefits, perceived personal costs and tourism development support, were significant. Additionally, residents' perceptions of tourism development potential had a significant influence on perceived impact and tourism development support except for perceived personal benefits. Some practical implications of those findings for tourism planning and development are also discussed.

**Keywords:** perceived impacts; sense of place; sustainable tourism development potential; China

## 1. Introduction

In recent years, with the decline of traditional industries, the tourism industry has played a more significant role in China's economy. The historical-cultural village, with its heritage and unique cultural attractions, has been considered as an important tourism resource. In most historical-cultural villages, there are many historical relics (i.e., ruins and antiques) and cultural legacies (i.e., folk tales and handicraft) [1], which are precious and non-renewable. As the number of tourists increases, the management and sustainability of these historical-cultural villages are attracting more and more attention from both entrepreneurs and scholars. Therefore, sustainable management of these villages is the way to achieve a balance between local economic development and landscape preservation. However, like other villages, historical-cultural villages need to gain support from their residents to promote a sustainable tourism industry.

Understanding the attitudes of residents towards local tourism development is crucial for developers and governments, because the sustainability and success of tourism development depend on the residents' active participation [2,3]. During the past three decades, a rich body of literature has been conducted to research residents' attitudes towards tourism and the affective factors [4–6]. Factors that influenced residents' support for tourism development, such as perceived impacts [2,7,8], community attachment [9–11], spatial factors [7,12] and economic dependence [13,14], have been extensively studied. However, while most of these studies concentrated on the impacts on the local community, relatively few studies have been conducted on personal impacts, such as personal economic benefit or cost, psychology, family relationships and quality of life, and the relationship between these personal perceived impacts and attitude toward sustainable tourism development. Additionally, recognizing the residents' sense of place also influences their perceived impacts and support for local tourism development [7,15]. Another factor related to residents' understanding of place and tourism development in a historic village is the perception of sustainable tourism development potential, which can influence their judgment of tourism industry developing in a particular place, and then affect their attitudes. Although most of the research concentrated on scholars' judgment for tourism development potential, few studies have considered residents' perceptions of their place's tourism development potential systematically. In past research, the more common concept is only the residents' place image. Thus, more research effort is needed to examine these influence factors on residents' perceived tourism impacts and tourism development support.

In order to maintain a balance between protection and development, the purpose of this paper is to explore residents' attitudes towards sustainable tourism development and the influence factors on their attitudes in a historical-cultural Chinese village. An integrated structural model was constructed to examine the relationship between residents' support for tourism development and the perceived collective benefits and costs, perceived personal benefits and costs, sense of place and sustainable tourism development potential. Based on responses from questionnaires, practical implications are proposed, and further research is also discussed.

## 2. Literature Review and the Model Hypotheses

### 2.1. Perceived Impact of Residents

It is generally accepted that tourism has the potential for both desirable and undesirable impacts on the local community [16]; thus, these current studies examined the perceived positive impacts (i.e., perceived benefits) and negative impacts (i.e., perceived cost) on residents [17]. Most researchers investigated the perceived impact of economic, environmental, social and cultural benefits or costs [3,18,19].

Economic impacts include positive elements such as promoted regional economic growth, new investment and employment opportunities, and higher tax revenue [10,20,21], as well as negative elements such as heavier taxation, currency inflation, increasing cost of living and local government debt [22–24]. The social impacts include positive elements such as a revival of traditional customs, and increased recreation for local people [25], and negative features such as increased crime rates (specifically theft, violence, vandalism and bullying), increased pressure on local infrastructure and social services [26], generated frictions and conflicts between tourists and residents, and changes to indigenous dwellers' way of life [27,28]. Environmental impacts such as environmental pollution, congestion, noise and parking problems, wildlife disruption, and litter are negative [26,29]. However, tourism is also improving the area's appearance and infrastructure, and has enhanced local nature and cultural protection [30]. From the cultural aspect, tourism produced some positive changes such as increased cross-cultural communication and understanding [31,32], which provided opportunities for cultural exchanges, but also created some negative changes to traditional cultures and destroyed local customs [21,33].

From the above analyses, it can be determined that there have been many achievements in the research about the perceived impact on host residents, but the four aspects of tourism influence—economic, environmental, social and cultural—were mostly from the regional development perspective. Tourism development also brings positive and negative effects to individuals and families. Tourism increases residents' personal and household benefits, improves family life quality, leads to heightened self-esteem, and increases knowledge [21,34–37]; at the same time, it also may change family composition, disturb normal life and children's education, and cause some psychological problems [38–40].

Generally, the impact of individual and collective interest on decision outcomes is different [41,42], so it is necessary to distinguish between the individual perceived impact and the collective perceived impact.

Based on the Social Exchange Theory (SET), numerous research studies have revealed that perceived impacts affect tourism support. Several studies reported that positively perceived benefits positively impact residents' support for tourism [9,17,36,43], and that negatively perceived costs have the opposite effect. However, other research revealed that the relationship between perceived negative impact and tourism support was insignificant [3,7]. Based on that theoretical and empirical evidence from this literature, hypotheses were proposed as follows:

**Hypothesis 1 (H1).** *There is a direct positive relationship between the perceived collective benefit (PCB) of tourism and tourism development support (TDS).*

**Hypothesis 2 (H2).** *There is a direct negative relationship between the perceived collective cost (PCC) of tourism and tourism development support (TDS).*

**Hypothesis 3 (H3).** *There is a direct positive relationship between the perceived personal benefit (PPB) of tourism and tourism development support (TDS).*

**Hypothesis 4 (H4).** *There is a direct negative relationship between the perceived personal cost (PPC) of tourism and tourism development support (TDS).*

## 2.2. Sense of Place

Sense of place is a fundamental concept in human geography, which was first presented in the 1970s [44]. Sense of place is the product of the interaction between humans and nature [45], the connection of personal emotion and place, and the unique personal experience of a place [46]. The definition of sense of place is dynamic but enduring positive correlations between people and specific or meaningful objects in a certain place, such as parents, homes, jobs and pets [47–49].

Williams and Patterson revealed that sense of place includes place attachment, place identity, place image, and agency commitment (i.e., in some studies also referred to as community attachment and community identity) [50]. However, the majority of tourism scholars measured sense of place as place attachment in two aspects: an emotional connection called place identification and a functional association called place dependence [51–55].

Many scholars have conducted research on the relationship between sense of place and tourism development support [28,56]. For example, Nicholas and Tsai indicated that sense of place directly and significantly affects residents' support for local tourism development [57], Ap and Lankford found that a stronger sense of place had a negative effect on residents' tourism development support [58,59], whereas several scholars did not find a significant and direct relationship between sense of place and tourism support [7,60].

Furthermore, some scholars have chosen perceived impacts as the mediating variable in exploring the role of community attachment in affecting tourism development support. Gursoy, Rutherford and Wang studied a model of host attitudes towards tourism development and found that community attachment had a significant and direct positive effect on residents' perceived benefits, but a significant

and direct negative effect on perceived costs; therefore, community attachment indirectly affects the support of tourism development [21,61]. However, some others found there was no clear relation between a sense of place and the perceptions of tourism impacts [7,28]. Consequently, these relationships are still debated and could be investigated and confirmed in this study. Therefore, those hypotheses are proposed as follows:

**Hypothesis 5 (H5).** *Sense of place (SOP) directly and positively affects perceived collective benefit (PCB) and indirectly and positively affects tourism development support.*

**Hypothesis 6 (H6).** *Sense of place (SOP) directly and negatively affects perceived collective cost (PCC) and indirectly and negatively affects tourism development support (TDS).*

**Hypothesis 7 (H7).** *Sense of place (SOP) directly and positively affects perceived personal benefit (PPB) and indirectly and positively affects tourism development support (TDS).*

**Hypothesis 8 (H8).** *Sense of place (SOP) directly and negatively affects perceived personal cost (PPC) and indirectly and negatively affects tourism development support (TDS).*

**Hypothesis 9 (H9).** *Sense of place directly and positively affects tourism development support (TDS).*

### 2.3. Tourism Development Potential

According to cognitive theory, different individuals have different understandings of the current situation, which leads to different behaviors [62]. In terms of residents, their perception of sustainable tourism development potential in their particular place is crucial for their attitude and behavior. Tourism development potential (TDP) describes the tourism developing foundations and is an assessment to predict tourism development. Tourism development potential has something in common with place image, which is the individual's perception of the specific attributes of a particular place [63]. Both are influenced by environmental psychology, geography, and place and product marketing [43]. Conceptually, tourism development potential is a comprehensive analysis of the destination, for the purpose of tourism development and based on the place image. Limited attention has been given to residents' assessments of tourism development potential, especially in relation to its effect on residents' perception of tourism impacts and tourism development support. Past studies paid more attention to specialists' or scholars' perceptions of tourism development, and explored a number of "indicators" surrounding tourism developments, which could influence tourism development sustainably and successfully. Melian-Gonzalez focused specifically on natural resources and attractions; there, tourism resources would include certain natural resources (such as beaches, mountains, and countryside), cultural assets (such as museums, traditions, and festivals), and skilled manpower [64]. Wilson suggested ten factors that are most important for successful tourism development including a complete tourism package, good community leadership, support and participation of local government, sufficient funds for tourism development, strategic planning, and so on [65]. González-Ramiro assessed the potential of rural tourism using a method combining with geographic information systems (GIS) software and the analytical hierarchical process (AHP), by some indices including accommodation offer, activities, natural environments, and so on [66]. Mazanec defined and measured the competitiveness of a tourism destination based on heritage and culture, infrastructure, communication facilities, social competitiveness, environmental preservation, tourism price, openness, and education [67]. Styliadis provided empirical evidence indicating that residents' place image had direct positive effects on their perceived tourism impacts and had indirect positive effects on tourism support [43]. Other studies have also suggested that positive images held by residents indirectly display their support for tourism [68,69]. With the aim of providing a deeper theoretical and practical understanding of the role of residents' perceptions of sustainable tourism development potential in shaping their support, the tourism support construct is examined as the ultimate dependent variable, and hypotheses are proposed as follows:

**Hypothesis 10 (H10).** *Tourism development potential (TDP) directly and positively affects perceived collective benefit (PCB) and indirectly and positively affects tourism development support (TDS).*

**Hypothesis 11 (H11).** *Tourism development potential (TDP) directly and negatively affects perceived collective cost (PCC) and indirectly and negatively affects tourism development support (TDS).*

**Hypothesis 12 (H12).** *Tourism development potential (TDP) directly and positively affects perceived personal benefit (PPB) and indirectly and positively affects tourism development support (TDS).*

**Hypothesis 13 (H13).** *Tourism development potential (TDP) directly and negatively affects perceived personal cost (PPC) and indirectly and negatively affects tourism development support (TDS).*

**Hypothesis 14 (H14).** *Tourism development potential (TDP) directly and positively affects tourism development support (TDS).*

All the 14 hypotheses are showed in Figure 1.

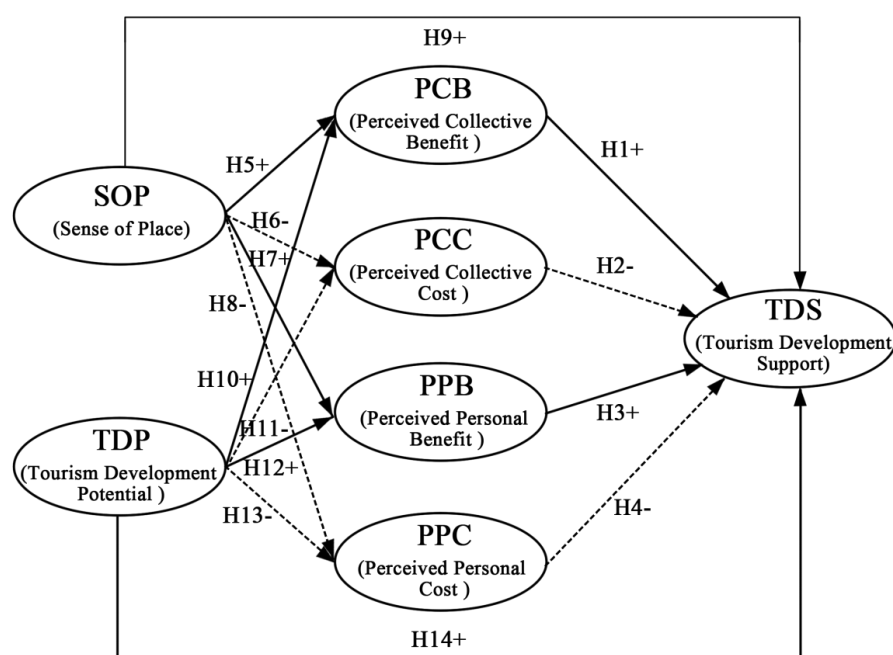


Figure 1. The proposed model.

### 3. Method

#### 3.1. Study Area

Luozhou is a historical and cultural town located in the southeast part of Nantai Island, in Fuzhou, Fujian province, China. The total area of Luozhou Town is 6.4 km<sup>2</sup>, and the population was 11,597 in 2013. Southwest of Luozhou is the Wulong River, and to the south is the Wuhu Mountain. Crossed by a river connected with the Wulong River, the town had a beautiful landscape. Furthermore, Luozhou has a rich cultural legacy and is famous for its ancient cultural assets: Chen's Five Buildings, Chen Ancestral Hall, and Tianhou Temple are the provincial heritage conservation units and the most famous heritage sites. Luozhou has nurtured many well-known people including great Chinese educators Chen Bao-chen, General Wu Shi, General Chen Chang-jie and economist Chen Dai-sun. The local government has actively taken up a heritage strategy in recent years, held a series of cultural events, and made a sustainable tourism development plan to promote the tourism industry. Luozhou has attracted the attention of developers and tourists, and it is necessary to know local hosts' attitudes on tourism and adopt some strategies for sustainable development.



### 3.2. Questionnaire Design and Data Collection

Based on the literature review, this questionnaire was designed as a survey instrument and included items that measured residents' sense of place, tourism development potential, perceived collective/personal benefits of tourism, perceived collective/personal costs of tourism, and tourism development support. Key background information and ways to participate in tourism from the respondents were also included.

The variables used to measure each construct were mainly derived from previous studies. Among them, the items for perceived collective benefits and costs were based on the findings of Upchurch [18], Tosun [24] and others. The perceived collective benefits included six items about economic, cultural, social and environmental benefits, and the perceived collective costs also comprised six items from the four aspects.

For the perceived personal benefits and costs of tourism, this study consulted the findings obtained by Wang [35], Boley [36] and Liu [39], which contained four items for benefits and another four items for costs.

The five items for a sense of place were based on the findings of Hailu [56], Lee [15] and Chen [17]. Accurately, three statements were supposed to represent community dependence and the other two were supposed to represent community attachment.

A six-item scale was developed to measure the tourism development potential for the study area derived from Styliadis [43] and Mazanec [67], who measured the natural and cultural resources, products, convenience, infrastructure and support for local government.

A four-item scale for residents' tourism development support was constructed to estimate the residents' intention mainly based on Gursoy [21] and Lee [15].

As a result, a questionnaire of 35 items was developed. The responses were graded on a five-point Likert scale, ranging from strongly disagree (1) to strongly agree (5).

The demographic information of respondents was assessed with seven items: gender, age, family structure, occupation, annual household income, education level and length of residence, via a categorical variable. These questions were used to set up the respondents' profiles.

Three multiple-choice questions were proposed for residents including their attitudes about participating in the tourism industry, what they want to do, and their proposals for tourism development. Self-administered questionnaires were distributed to local residents in Luozhou Town.

Before data collection, a pilot study was conducted from 11–14 January 2015, and 50 usable questionnaires were collected. The feedback demonstrated that these questionnaires could be easily understood.

The major data-gathering activities were performed in February 2016. The random sampling method was used to ensure better representativeness. However, absolute random sampling from door-to-door is impractical. In this case, considering those residents with weekday work, surveys were conducted at different times in the town entrance square (most residents pass by every day) to allow for a diverse group of respondents. A total of 400 questionnaires were delivered, and 331 effective ones were recalled with a response rate of 82.75%, after eliminating those that were incomplete. This sample size was sufficient for performing the structural equation model (SEM) analysis [57].

### 3.3. Data Analysis

The descriptive statistics and local residents' profiles were evaluated using SPSS (20.0, IBM, Armonk, NY, USA), which was utilized to obtain an overall sense of the mean ratings and standard deviations of all of the items. The confirmatory factor analysis (CFA) and structural equation model (SEM) were analyzed by using AMOS (19.0, IBM, Armonk, NY, USA) in two stages. First, a confirmatory factor analysis was conducted to test the reliability and validity, based on the construct reliabilities, average variance extracted (AVE). Second, the proposed theoretical model was examined through the evaluation of the goodness-of-fit, such as  $\chi^2/df$ , root mean square error of approximation (RMSEA), comparative fit index (CFI), normative fit index (NFI) [70], and other fit indices.

## 4. Results

### 4.1. Profiles of the Respondents

In the respondents' profiles (shown in Table 1), 48.94% were men ( $n = 162$ ) and 51.16% were woman ( $n = 169$ ); 82.78% were married ( $n = 274$ ) and 12.22% were not ( $n = 57$ ). The largest age group was from 31 to 40 years old ( $n = 93$ , 28.10%). The other age groups were: 20 and less ( $n = 15$ , 4.53%), 21 to 30 ( $n = 58$ , 17.52%), 41 to 50 ( $n = 62$ , 18.73%), 51 to 60 ( $n = 55$ , 16.62%), and 61 years old or above ( $n = 48$ , 14.50%). One hundred twenty-three (37.16%) respondents held a university degree or more and 170 (51.36%) possessed a senior high school degree. Thirty-five point six percent ( $n = 90$ ) of respondents worked on the land, while 28.73% were self-employed. Most respondents ( $n = 124$ , 37.46%) had an annual income between CNY 20,001 and CNY 40,000 (around US \$3000 to \$6000), and only 30 (9.06%) had an annual income above CNY 60,000 (around US \$9000). In terms of about how long they had lived in Luozhou, 66.77% ( $n = 221$ ) reported more than 30 years, and 13.60% ( $n = 45$ ) 20 to 30 years.

**Table 1.** The respondents' profiles.

Variable	Frequency	%
Gender		
Male	162	48.94
Female	169	51.16
Age		
20 and less	15	4.53
21–30	58	17.52
31–40	93	28.10
41–50	62	18.73
51–60	55	16.62
61 and over	48	14.50
Marital status		
Married	274	82.78
Unmarried	57	12.22
Education		
Junior high school or less	38	11.48
Senior high school	170	51.36
Undergraduate	88	26.59
Postgraduate or more	35	10.57
Average annual income (CNY ¥)		
20,000 or less	68	20.54
20,001–40,000	124	37.46
40,001–60,000	109	32.93
60,001 or more	30	9.06
Occupation		
Official	18	5.44
Manufacturing	44	13.29
Commercial	53	16.01
Agriculture	90	27.19
Self-employed	64	28.73
Others	62	19.34
Residence tenure		
1–10 years	21	6.34
11–20 years	44	13.29
21–30 years	45	13.60
31 years or more	221	66.77

#### 4.2. Descriptive Statistics

The mean scores of the 35 items are displayed in Table 2, which ranged from 2.83 to 4.64. The three highest mean scores of these items are: “tourism development will create more tax revenue” (4.64); “I support tourism development in Luozhou” (4.62); and “Luozhou had abundant resources with the high value of tourism” (4.55). These items are about the benefits of tourism, supporting tourism development, and great potential for tourism development in Luozhou, which indicate that the respondents look forward to tourism developing. The three lowest are: “tourism development may affect my children’s regular education” (2.83); “cause negative mentality like jealousy, self-abasement, cynicism or fantasy” (2.84); and “Increase conflicts between visitors and residents” (2.97). These items are the respondents’ perceived negative impacts, indicating that respondents may not be worried about the possible negative impacts.

**Table 2.** Descriptive statistics, factor loadings, average variance extracted (AVE) and composite reliability (CR) of the measurement model.

Scale and Items Description	Mean	Std. Deviation	Factor Loadings	AVE	CR
<b>Tourism Development Potential</b>				0.55	0.88
abundant resources with high value of tourism	4.5468	0.64673	0.83		
abundant folk crafts and snacks	3.9728	0.71511	0.70		
beautiful natural environment preservation	4.4199	0.70631	0.76		
high quality of infrastructure	4.1269	0.69777	0.72		
convenient transportation	4.3323	0.84467	0.70		
support and participation of local government	4.3444	0.66683	0.72		
<b>Perceived Collective Benefit</b>				0.54	0.87
create more tax revenue	4.6435	0.55578	0.79		
increase job opportunities for this community	4.4169	0.64306	0.70		
improve the public infrastructure and facilities	4.3112	0.69402	0.72		
provide an incentive for the preservation of local resources	4.2810	0.74033	0.74		
enrich local recreation and activities	4.2900	0.70530	0.73		
increase cultural exchanges	4.1752	0.74638	0.71		
<b>Perceived Collective Cost</b>				0.54	0.87
cause more litter and pollution	3.2266	0.77851	0.70		
cause more traffic congestion and parking problems	3.2870	0.84519	0.75		
raise local product prices	3.5589	0.82315	0.77		
overuse the resources of local heritage	3.0816	0.80678	0.72		
increase crime rates and prostitution	3.1390	0.71691	0.70		
Increase conflicts between visitors and residents	2.9698	0.75015	0.75		
<b>Perceived Personal Benefit</b>				0.70	0.90
My family will gain economic benefits	4.3837	0.77121	0.85		
My family members will get good jobs	4.1903	0.82940	0.84		
widen my view of the field and knowledge	4.2054	0.75082	0.83		
the quality of my life will be improved	4.1692	0.85018	0.83		
<b>Perceived Personal Cost</b>				0.62	0.87
disrupt my quality of life and cause irritation	3.0060	0.77457	0.78		
Increase my budget	3.0997	0.77793	0.77		
may affect my children’s regular education	2.8308	0.73139	0.77		
cause negative mentality like jealousy, self-abasement, cynicism or fantasy	2.8399	0.81373	0.83		
<b>Sense of Place</b>				0.62	0.89
I am familiar with community affairs	4.3233	0.73115	0.74		
I always participate in community affairs	4.3021	0.74628	0.80		
I feel a strong sense of belonging to this community	4.3384	0.74692	0.78		
I have frequent contact and communication with community residents	4.3293	0.73259	0.81		
I don’t want to relocate to another place	4.1360	0.79178	0.80		
<b>Tourism Development Support</b>				0.74	0.92
I support tourism development in Luozhou	4.6224	0.67822	0.85		
I’d like Luozhou to attract more tourists	4.4290	0.72002	0.88		
I participate in tourism-related plans and development	4.2840	0.71627	0.87		
I cooperate with tourism planning and development initiatives	4.3776	0.66011	0.85		

Note: AVE(Average Variance Extracted) =  $\frac{\sum (Li)^2}{(\sum Li^2 + \sum \text{Var}(Ei))}$ , CR (Composite Reliability) =  $\frac{(\sum Li)^2}{((\sum Li)^2 + \sum \text{Var}(Ei))}$ , in it  $L_i$  is the factor loading,  $E_i$  is the observable variables’ error variance.

The mean scores of all the perceived collective benefit items are higher than the six perceived collective cost items, and the perceived personal impacts are the same. These indicate that the residents’



prospective positive benefits of tourism outweigh negative impacts regardless of whether they are personal or collective.

The summated mean scores of all of the constructs, from highest to lowest, were: tourism development support (4.43); perceived collective benefit (4.35); tourism development potential (4.29); sense of place (4.29); perceived personal benefit (4.24); perceived collective cost (3.21); and perceived personal cost (2.94). Obviously, it showed that the residents who responded held positive attitudes toward support for tourism and were in favor of the positive impacts. Additionally, the summated mean score of all of the perceived collective benefit (4.35) is higher than the perceived personal benefit (4.24), and the perceived collective cost summated mean (3.21) is lower than the perceived personal cost (2.94), showing that the respondents considered that the impacts of tourism development on community were greater than that of individuals.

#### 4.3. Measurement Model

A CFA (Confirmatory Factor Analysis) was performed to evaluate model fit and the validity of the seven constructs: tourism development support (TDS); perceived collective benefit (PCB); perceived personal benefit (PPB); perceived collective cost (PCC); perceived personal cost (PPC); tourism development potential (TDP); and sense of place (SOP).

To obtain a better fit measurement model, the modification indices provided by AMOS were utilized for the model modification. The results of the CFA showed that the chi-square statistic ( $\chi^2 = 888.92$ ,  $df = 543$ ) was significant, which infers that the measurement may not fit well. However, as the sample size can affect the value of  $\chi^2$  [17], the ratio of the chi-square value to degrees of freedom ( $\chi^2/df = 1.64$ ) was used, which was less than the cut-off value of 3 [71]. Moreover, the CFI (the goodness-of-fit index) was 0.963 and the NFI was 0.913, which were more than the threshold of 0.9 [72]; the RMR (root mean square residual) was 0.018 and the RMSEA (the root mean square error of approximation) was 0.044, which were less than the cut-off value of 0.05 [72]. On the basis of these fit indices, the SEM hypothesized model fits well with the empirical data.

As shown in Table 2, the composite reliability values of all seven constructs ranged between 0.87 and 0.92, which exceed 0.70 and indicated that the measured items having high reliability. All of the AVE for the seven constructs fell between 0.54 and 0.74 and exceeded 0.50 [71], indicating that the current research had adequate levels of convergent and discriminate validity. Furthermore, the factor loadings of all 35 items exceeded 0.50 and were significant ( $t > 1.96$ ,  $p < 0.05$ ), indicating strong convergent validity [72].

#### 4.4. Structural Model and Hypotheses Testing

These supposed hypotheses were verified through relationship paths of model elements using SEM. The structural equation model's fit was assessed using the same model fit statistics from the CFA. Two criteria were used for judging whether a hypothesis was supported: (1) the statistical significance of the relationship at the significance level of 0.05 ( $t > 1.96$ ,  $p < 0.05$ ); and (2) then a confirmation of the relationship as hypothesized (+ or −) [36]. As shown in Table 3, nine of the 14 hypotheses have passed the estimated structural model testing. H1~4 tested the relationship between the residents' perceived impacts of tourism and tourism development support specifically. Only H1 "There is a direct positive relationship between the perceived collective benefit of tourism and tourism support" was supported. This implied that residents' perceived impacts of tourism make minor influences on their tourism support directly. H5~9 focused on testing the influence of sense of place for residents within the model. All of the hypotheses tested support, except for H6, "Sense of place directly and negatively affects perceived collective cost and indirectly and negatively affects the tourism development support." This suggests that sense of place had a great influence on other latent variables, except perceived collective cost. H10~14 tested the relationship between tourism development potential and perceived collective benefit, perceived personal benefit, perceived collective cost, perceived personal cost and support for tourism development. In addition to H12, "Tourism development potential directly

and positively affects perceived personal benefit and indirectly and positively affects the tourism development support”, four other hypotheses were supported by this study, which indicated that tourism development potential had significant and positive effects on perceived collective benefit and tourism development support, and at the same time, had significant and negative effects on perceived collective cost and perceived personal cost.

**Table 3.** Standardized maximum likelihood parameter estimates (structural equation model (SEM)).

Hypotheses	Path	Standardized Coefficient	<i>t</i>	Support for Hypothesis
H1	PCB → TDS (+)	0.331	2.017 **	Supported
H2	PCC → TDS (−)	−0.115	−1.206	Not Supported
H3	PPB → TDS (+)	0.391	1.619	Not Supported
H4	PPC → TDS (−)	−0.041	−0.646	Not Supported
H5	SOP → PCB (+)	0.251	3.329 **	Supported
H6	SOP → PCC (−)	−0.232	−1.624	Not Supported
H7	SOP → PPB (+)	0.887	4.981 **	Supported
H8	SOP → PPC (−)	−0.391	−2.424 **	Supported
H9	SOP → TDS (+)	0.809	2.249 **	Supported
H10	TDP → PCB (+)	0.623	2.872 **	Supported
H11	TDP → PCC (−)	−0.752	−3.872 **	Supported
H12	TDP → PPB (+)	0.312	1.689	Not Supported
H13	TDP → PPC (−)	−0.584	−2.732 **	Supported
H14	TDP → TDS (+)	0.446	2.310 **	Supported

Note: here, “+” represents the influence is positive in hypothesis, and “−” is negative. “\*\*\*” represents the influence is extremely significant (where  $t > 1.96$ ), and the hypothesis is supported.

#### 4.5. Ways to Participate in Tourism

Three questions were posed to residents in the questionnaire: “Which way do you prefer to participate in local tourism development,” “What would you like to do in community tourism development” and “Would you put forward some suggestions for tourism development.” The results showed that 30.51% of respondents want to operate restaurants, 27.49% want to run a family inn, 24.17% want to participate in retail trade, 6.34% may become a tour guide, 1.51% want to participate in transportation, 3.32% would like to be folk performers, 3.33% can make tourist souvenirs, and 3.33% of respondents do not want to participate in the tourism economy. This indicated that catering, lodging and retail are relatively easy to implement for residents. In terms of the way residents prefer to participate in development, there were 222 (67.07%) respondents who preferred tourism development guided by the government with multiple units participating in the process, 101 (30.51%) respondents believed tourism groups operated directly would be better, and only 6 (1.81%) respondents did not have a preferred manner of development. What is more, 36.56% of respondents stated that developers must restore stone roads that were damaged during the town construction and 22.66% of respondents believed that the quality of ecology of the landscape should be improved before large-scale tourism developing.

## 5. Discussion and Conclusions

With the expansion and maturity of the global tourism industry, historical-cultural villages are competitive in the international marketplace. Especially for the sustainable development of tourism, it is important to obtain a further understanding of hosts’ attitudes toward tourism development and the factors influencing their attitudes.

The purpose of this study was to develop a theoretical model for residents’ attitudes towards tourism development support, considering tourism development potential, sense of place and perceived impacts. In this study, the perceived benefits and costs were divided into collective and individual, and the residents’ perceptions of tourism development potential were considered first.

The structural relationships between all variables in the study were tested using empirical data based on a questionnaire investigation of residents in a historical-cultural village, Luozhou, in China.

The descriptive statistics demonstrated that the residents in Luozhou were very supportive of tourism development. Most of them believed that tourism would bring more benefits than costs, both to the community and individuals, and that the effects on the community would be larger than that on individuals.

The CFA, reliability and validity testing, loading factors and model fit indices indicated that the measurement model was acceptable and had a good fitting effect for the empirical data. The results from SEM revealed that nine of the 14 hypothesized paths in the proposed structural equation model were acceptable and statistically significant in the expected direction at the 0.05 probability level, while another four posed hypotheses were rejected.

The perceived collective benefits had a significantly positive influence on tourism development support, but the impacts of perceived collective cost, perceived personal benefits and perceived personal cost on tourism development support were not significant. This result was somewhat different from previous studies [9,35,36], mainly because this study utilized new division in perceived impacts and the difference of samples. Despite the insignificance of the results, the tendencies of the hypothesized paths and the previous research were the same. As expected, residents are likely to participate in an activity if they expect that they are likely to gain benefits that exceed incurring costs based on SET.

Sense of place had a significant positive effect on both collective and personal benefits, and had a significant negative effect on personal cost, which corresponded with the results from previous literature [7,61]. In addition, sense of place had a direct, positive effect on residents' support of tourism development, which was consistent with others' studies [17,34]. Furthermore, sense of place also indirectly affected support for tourism development mediated by perceived impacts indirectly. This implied that residents who are more devoted to their community and have a high sense of place tended to think that tourism would bring more benefits and that they support tourism development more.

A significant positive relationship was found between residents' perceptions of tourism development potential and their perceived collective benefits. Conversely, there was a negative significant relationship between tourism development potential and both negative collective and personal impacts. This indicated that residents' perceptions of local sustainable tourism development potential could influence their perception of benefits or costs, especially from a communal standpoint. The tourism development potential also had a significant direct positive effect on tourism development support, which means that the tourism development potential could directly affect residents' attitudes toward tourism development. Additionally, except for the direct effects, the tourism development potential and sense of place also had indirect effects on tourism development support via the moderating variables of perceived tourism impacts. This result suggested that in order to increase residents' support for sustainable tourism development, raising their sense of place and perceptions of tourism development potential were crucial.

From a sustainable development perspective, it can be referred that increasing local residents' benefits, decreasing their costs from tourism, raising their positive perceptions and confidence for tourism, and inspiring their attachment to community would help to enhance their support for tourism development. They might then be more enthusiastic about local policies and affairs of tourism development and maintaining the sustainability of local resource. Additionally, for ways to participate in tourism, more residents want to operate restaurants, inns or stores, perhaps because these were convenient methods for using their house. The majority of residents preferred tourism development guided by the government with multiple units, based on trust and confidence for the government.

From a managerial perspective, these findings also have practical implications for tourism development, planning and policy. It is suggested that to encourage residents' support for tourism development, tourism development plans should aim to consider residents' sense of place and use

strategies to improve their perception of tourism development potential, such as promoting the improvement of local infrastructure and physical appearance, introducing tourism development policies, and protecting the local unique resource. Given the importance of residents' sense of place, government investing in livelihood projecting, holding more community activities and encouraging residents to participate in community affairs will be helpful. Moreover, to maintain support, developers could also engage in increasing the benefits and decreasing the costs of tourism development both for the local community and its inhabitants. Developers can take some measures to encourage residents, for example, to participate in tourism development in multiple ways to improve their tourism economic dependence. Some strategies such as government subsidies for residents who are involved in tourism, tax breaks for tourism businesses, and creating a fair development environment can also be taken. In addition, as the conditions of the destination may change constantly, residents' perception of tourism and their support for further development should be continually supervised and managed.

This research represented an initial effort in helping tourism planners and managers to understand what factors influence local hosts' attitudes toward tourism development and the effects of these factors. Then, this study tried to explain residents' perceptions of tourism and their support/opposition for tourism development with a useful research model. However, local residents' attitudes on tourism depend on various factors such as the residents' social characteristics, the destination's stage of development, economic dependence and so on, which should be given more attention in further research. To be able to generalize the results of this study, similar studies can be repeated in other pilot plots. Therefore, other destinations should be examined, and additional surveys should be conducted.

**Acknowledgments:** Thanks to Hui Tao, Ning Lv and local officers in Luozhou for delivering questionnaires. Special thanks to anonymous reviewers for their insightful comments and suggestions.

**Author Contributions:** He Zhu and Jiaming Liu conceived and designed the article framework and the questionnaire. He Zhu and Zongcai Wei collected and analyzed the data. He Zhu wrote this paper. Jiaming Liu and Zongcai Wei made modifications. Weiheng Li contributed to using the analysis software tool. Lei Wang helped with the questionnaire survey and proposed suggestions.

**Conflicts of Interest:** The authors declare no conflict of interest.

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