Satisfaction of Indigenous Tourism from Residents’ Perspective: A Case Study in Nantou County, Taiwan

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Abstract: This study focused on indigenous residents’ satisfaction of tourism development. We used sociocultural preservation (SP), economic benefits (EB), environmental protection (EP) and environmental devastation (ED) as indicators to examine residents’ satisfaction following tourism development in an indigenous area. The present study interviewed 391 indigenous residents located in two indigenous villages located in Nantou County, Taiwan, aged 20–70 (174 men and 217 women). The findings showed that most of the participants were satisfied with SP, EB and EP and revealed differences among birthplace, duration of residence, occupation groups regarding SP, EB and EP. Two types of groups (people born locally and residing for more than 15 years) reported higher satisfaction of SP, EB and EP. In addition, path analysis found SP, BE, EP and ED had explanatory power of tourism development satisfaction with $R^2 = 0.692$. Since tourism development in indigenous areas has significant impact on local residents, this development should consider not only the economic benefits but also sociocultural preservation and environmental protection to meet the expectations of local indigenous residents.

Keywords: indigenous people; tourism development; environmental impact; economic benefits; sociocultural preservation

1. Introduction

The main purpose of this study is to explore the associations among sociocultural preservation, economic benefits, environmental impact and tourism satisfaction of indigenous tourism from the perspective of local residents. The core issues and goals are (1) comparisons of residents’ perception differences toward sociocultural preservation, economic benefit and environmental protection and (2) clarification of the associations among sociocultural preservation, economic benefit, environmental protection and tourism development satisfaction of local residents. We hope these explorations can provide perceptive insights into indigenous tourism from indigenous residents’ perspectives for authorities regarding the management of indigenous tourism. The following provides a discussion of previous related studies as background for our study.

1.1. Indigenous Tourism

Indigenous tourism can be defined as a type of tourism activity which involves the culture of indigenous people serving as the essence of the attraction. Indigenous tourism can provide opportunities to promote greater cultural understanding while enhancing indigenous peoples’ capacity and economy [1].
1.2. Sociocultural Preservation

According to social exchange theory [2], tourism contributes to the cultural exchange among visitors and local residents. Liu et al. [3] specified that the greater the cultural difference, the more the sociocultural exchange from tourism. Lee [4] concluded that tourism, as a cross-cultural communication, might highlight and reinforce destination residents’ original cultural identity and cultural self-esteem. Studies related to tourism impacts on destination cultures recognized both positive and negative impacts of tourism development [5–11]. Tang [12] suggested that residents’ perception of and attitude toward tourism sociocultural impacts can influence the future tourism development of communities.

1.3. Economic Benefits

According to research on the benefits of tourism development on the economy, the tourism industry enhances economic activities of ethnic areas, increases revenues of local governments, provides local people with more job opportunities and increases their family incomes [13–17]. Keogh [18] suggested that residents’ perception of the economic benefits of tourism development was associated with their positive attitude toward tourism. In other words, when residents perceive economic benefits from tourism development, they are more likely to support relevant tourism development in the local area [19].

1.4. Environmental Impact

With an increase of tourists, environmental issues become important [18]. According to Liu and Bao [20], tourism development had both positive and negative impacts on the environment. Tsui [21] found that tourism influenced local residents’ perceptions of and attitude toward the economy and its sociocultural and environmental aspects. For example, regional traffic is improved and more accessible. Rapid growth in a large number of new ecological tourism destinations results in environmental pollution, residents’ increased expectation of life quality and residents’ lower satisfaction with tourism development.

1.5. Sociocultural, Economic and Environmental Impacts on Tourism Development

Since the 1970s, researchers have raised concerns regarding tourist destination residents’ attitudes toward tourism and its impacts [22]. They first recognized the economic impact perception of tourism [23,24]. Gradually, they realized that tourism also influenced sociocultural and environmental impact perceptions [2,25,26]. With subsequent studies, researchers noted the associations among economic impact, sociocultural impact and environmental impact [18,27–29]. Researchers started focusing on destination residents’ perceptions of tourism impacts and perceived attitudes [20]. Subsequently, many scholars conducted empirical research on tourism impact perception and on attitude toward tourist destinations [30–34].

With the exploration of tourism impacts, particularly research on the sociocultural impacts of tourism, scholars increasingly measured tourism impacts by destination residents’ perceptions and attitudes and argued that these measures were feasible and effective. Varied perspectives and views of residents in different regions were seen as providing useful criteria for tourism development, planning and management. Tourism development is associated with destination residents’ perceptions of sociocultural, economic and environmental impacts. Lee [35] and Chen and Zhou [36] found local residents had positive attitudes toward social, economic and environmental impacts in the development of the local tourism industry. Tang and Wu [37] studied residents’ satisfaction with eco-tourism development in rural communities and recognized the importance of ecology to residents. According to Wang, Lang and Na [38], destination residents, to different degrees and in different dimensions, were influenced by the destination tourism industry. Ap [39] studied residents’ views on tourism impacts and proposed a social exchange process model as the theoretical basis to explore
residents’ perceptions of tourism impacts. Liu [40] indicated that harmonious development of tourism is associated with the relationships among destination residents, tourism developers and tourists, and their respective attitudes towards tourism. According to Liu [40], local residents who perceive destination tourism development as providing a tourism service and having an impact can provide useful information as references for local tourism developers.

1.6. Indigenous Peoples’ Attitudes toward Indigenous Tourism

With the convenience of transportation, visiting indigenous villages has become popular. Hence, experiencing indigenous daily activities (dancing, clothing and production activities, such as hunting, fishing, and trail hiking) is a major part of indigenous tourism. With increasing visitors, the sociocultural change, the economic benefits and the local environment are some of the most critical impacting factors on indigenous areas [41]. With increasing external investment, the traditional culture and social relations of indigenous villages change. Different local development processes, development phases and environmental carrying capacities result in residents’ varied attitudes toward tourism development. Hence, residents’ compliance, contradiction and opposition are successively shown in the tourism development of indigenous villages [41]. In fact, it has resulted in relative destruction and burden on the environment of Taiwan [42]. On the other hand, scholars and indigenous elites believe that indigenous tourism development will provide the opportunities and turning points for indigenous peoples’ culture, economic development and ecological protection [43]. Therefore, this study aimed to investigate the associations among indigenous residents’ sociocultural, economic and environmental impact perceptions of indigenous tourism and their satisfaction with tourism development and to provide suggestions for related tourism development.

2. Research Method

2.1. Research Structure

This study develops a research structure according to the theory of reasoned action (TRA) [44,45]. The theoretical base refers to the social psychology characteristics of attitude, intention and behavior. Since the research focuses on indigenous peoples’ attitudes toward indigenous tourism, TRA was adopted in our research. The research structure is shown in Figure 1. Hypotheses are constructed as follows:

**Hypothesis 1:** Economic benefits will have a positive impact on residents’ satisfaction of tourism development.

**Hypothesis 2:** Sociocultural preservation will have a positive impact on residents’ satisfaction of tourism development.

**Hypothesis 3:** Environmental protection will have a positive impact on residents’ satisfaction of tourism development.

**Hypothesis 4:** Environmental devastation will have a negative impact on residents’ satisfaction of tourism development.
2.2. Research Subjects and Data Collection

In Taiwan, there are 16 indigenous groups, each with its own language, traditions and identity. In this study, residents of two indigenous villages located in Nantou County, Taiwan, were selected for a survey. Nantou County is located in the central part of Taiwan. In 1999, Nantou County suffered a major earthquake (magnitude 7.1), which caused huge damage and claimed over 6000 lives. Thereafter, the government made large efforts for recovery. At the same time, the Tourism Bureau of the Taiwan government started to promote indigenous tourism to increase local residents’ incomes. In this study, we selected two indigenous villages located in the northern and eastern parts of Nantou (please refer to Figure 2 for location and Figure 3 for traditional dresses and harvest). The residents mostly belong to “Bunun”. These two indigenous villages were noted for traditional dance, singing, hunting and rice wine brewing. In fact, they are best known for their sophisticated polyphonic vocal music. Their Pasibutbut song (song of the Bunun Sowing Festival) comprises a polyphony in a four-part harmony (commonly 8 heterophonic voices, usually 5–12 heterophonic voices). In the study, we distributed 400 questionnaires to the residents from 1 July to 31 August 2015 and retrieved 391 valid samples, with a valid return rate of 97.75%. Of the total responses, there were 174 males and 217 females (55.5%). As for age, most were 21–40 years old (48.3%), followed by 41–60 years old (34.5%), 20 years old (10.5%) and above 60 years old (6.6%). As for education, most graduated from high school and vocational school (45.3%), followed by junior high school (22.3%), university (21.5%), elementary school (8.7%), independent study (3%) and graduate school (2%). Occupations were agriculture (26.9%), followed by industry (17.1%), self-employed (12.5%), students (10.7%), military, official servant and teacher (10.5%), commerce (9.5%) and other (15.3%). Most earned a monthly income of TWD 20,001–40,000 (50.4%), followed by less than TWD 20,000 (28.6%), TWD 40,001–60,000 (18.4%) and more than TWD 60,000 (2.6%). In terms of years at current local residence, most have lived in the area for more than 15 years (68%), followed by 1–5 years (10%), 11–15 years (8.2%), 6–10 years (7.9%) and less than one year (5.9%). Most were born in the local area (82.5%).

Figure 1. Research framework.
2.3. Instruments

The background variables of the study included sex, age, annual income, education, occupation, duration of residence and whether they were born at the local village.

This study adopted the “Factors of Tourist Destination Residents’ Tourism Perception Scale” developed by Wang [46] as a measurement. The scale is comprised of five factors: Sociocultural preservation perception (SP), economic benefit perception (EB), environmental protection (EP), environmental devastation perception (ED) and satisfaction with tourism development perception (SAT). A total of 30 items were scored on a five-point frequency rating scale ranging from 1 (strongly disagree) to 5 (strongly agree).

The reliability and validity of the instrument was examined using partial least squares structural equation modelling (PLS-SEM). The factor loadings from the final PLS measurement models were all greater than 0.50 for their respective factors, which confirmed indicator reliability. Composite reliability and Cronbach’s alpha values for all scales exceeded the minimum threshold level of 0.70, thus indicating the reliability of all scales used in this study (Table 1). Results revealed that the average variance extracted (AVE) for all factors exceeded the minimum threshold value of 0.50, which was an indication of the convergent validity of all scales (Table 1). Fornell and Larcker’s test for discriminant validity revealed relatively high variances extracted for each factor compared to the inter-scale correlations, which was an indication of the discriminant validity of the four constructs.
Table 1. Reliability, convergent, and discriminant validity of the measurement model.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Correlation</th>
<th></th>
<th></th>
<th></th>
<th>CR</th>
<th>α</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Economic benefits</td>
<td>0.881&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(2) 0.945</td>
<td>(3) 0.928</td>
<td>(4) 0.776</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Sociocultural preservation</td>
<td>0.698</td>
<td>(2) 0.814&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(3) 0.946</td>
<td>(4) 0.935</td>
<td>(5) 0.662</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Environmental protection</td>
<td>0.661</td>
<td>(2) 0.774</td>
<td>(3) 0.835&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(4) 0.901</td>
<td>(5) 0.850</td>
<td>(6) 0.698</td>
<td></td>
</tr>
<tr>
<td>(4) Environmental devastation</td>
<td>0.239</td>
<td>(2) 0.274</td>
<td>(3) 0.322</td>
<td>(4) 0.914&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(5) 0.953</td>
<td>(6) 0.934</td>
<td>(7) 0.835</td>
</tr>
<tr>
<td>(5) Residents' satisfaction</td>
<td>0.655</td>
<td>(2) 0.758</td>
<td>(3) 0.761</td>
<td>(4) 0.353</td>
<td>(5) 0.841&lt;sup&gt;a&lt;/sup&gt;</td>
<td>(6) 0.944</td>
<td>(7) 0.930</td>
</tr>
</tbody>
</table>

Note: <sup>a</sup> Square root of AVE. <sup>b</sup> Composite reliability. <sup>c</sup> α = Cronbach Alpha. <sup>d</sup> Average variance extracted.

2.4. Data Analysis

Our analysis was based on PLS–SEM and was conducted using SmartPLS 2.0 (SmartPLS GmbH, Hamburg City, Germany) [47]. According to Chin [48], PLS can be used for exploratory and confirmatory analyses. PLS benefits from (1) being distribution-free, (2) requiring only a small sample size, (3) having the ability to process multiple dependent and independent variables simultaneously, (4) handling collinearity, and (5) processing both formative or reflective indicators. Our study aimed to identify the relationships between SI, EB, EP, ED and SAT. Therefore, PLS–SEM was used to test the relationships in the study.

3. Results

3.1. Descriptive Statistics

Economic benefits: Indigenous residents agreed on the economic benefits of indigenous tourism (above all items, M = 4.01, SD = 0.70). Sociocultural perception: Averages in this scale ranged from 3.72 to 3.92 (above all items, M = 3.84, SD = 0.69), indicating indigenous residents agreed with the efforts of preserving the local socio-culture by government and local residents. Environmental protection: Averages in this scale ranged from 3.6 to 3.95 (above all items, M = 3.81, SD = 0.76), indicating indigenous residents acknowledged the efforts of environmental protection by government and local residents. Environmental devastation: Averages in this scale ranged from 3.86 to 3.92 (above all items, M = 3.88, SD = 0.86), indicating indigenous residents perceived environmental devastation attributed to tourism. Satisfaction: Averages in this scale ranged from 3.6 to 3.95 (above all items, M = 3.77, SD = 0.75), indicating indigenous residents, in a range, were satisfied with indigenous tourism.

3.2. Relationships of EB, SP, EP, ED and SAT with Different Groups

To explore the relationships of EB, SP, EP, ED and SAT with different groups, independent-sample t-tests and one-way ANOVA analyses were performed. Systematic differences were found between duration groups in levels of EB, F(4, 386) = 2.672, p = 0.032; SP, F(4, 386) = 3.47, p = 0.008; EP, F(4, 386) = 2.44, p = 0.046; ED, F(4, 386) = 3.45, p = 0.009; and SAT, F(4, 386) = 3.32, p = 0.011. The highest levels of EB were found in residence of a local village of 1–5 years (M = 4.31), whereas the lowest scores were observed for residence of 11–15 years (M = 3.89). The highest levels of SP were found in residence in a local village of 1–5 years (M = 4.17), whereas the lowest scores were observed for residence of 11–15 years (M = 3.89). The highest levels of EP were found in residence in a local village of 1–5 years (M = 4.16), whereas the lowest scores were observed for residence of 11–15 years (M = 3.67). The highest levels of ED were found in residence in a local village of 1–5 years (M = 4.14), whereas the lowest scores were observed for residence of 11–15 years (M = 3.67). The highest levels of SAT were found in residence in a local village of 1–5 years (M = 4.17), whereas the lowest scores were observed for residence of over 15 years (M = 3.71). Post-hoc tests revealed that only differences in SAT between the high-scoring duration (1–5 years) and low-scoring duration (over 15 years) were statistically significant (p = 0.012). In summary, those in residence over 15 years had lower satisfaction than those with residence of 1–5 years. As for birth place, people born in the villages had higher SP
(M = 3.88, SD = 0.65) and EP (M = 3.86, SD = 0.70) than others (SP, M = 3.61, SD = 0.81; EP, M = 3.86, SD = 0.94).

3.3. Hypotheses Tests

In order to test our hypotheses, PLS analyses were conducted. The explanatory power of residents’ satisfaction (R²) from the analysis was equal to 0.672; Chin [48] mentioned a minimum explanatory power of 0.19. Path coefficients of different dimensions were significant, revealing the significant meaning of endogenous constructs in the model structure of this study in terms of statistics [48]. The effect value, f², can be applied to examine the significance of the effects of exogenous latent variables which explain endogenous variables. As to the standard of examination, 0.02, 0.15 and 0.35 represent low, medium and high effects, respectively, of exogenous latent variables which explain endogenous variables. According to the validation results of the hypothesis relationships among variables in Table 2, the effect values (f²) in this study are between 0.024 and 0.117. Environmental protection had the highest predicted power on satisfaction. The significances of path coefficients were tested using bootstrap sampling. All path coefficients were significant, indicating all variables had predicted power on satisfaction.

Table 2. Path coefficient of structure model.

<table>
<thead>
<tr>
<th>Hypothesis Relationship</th>
<th>β</th>
<th>T</th>
<th>f²</th>
<th>Validation of Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>(H1) Economic benefits satisfaction</td>
<td>0.145</td>
<td>4.414 ***</td>
<td>0.024</td>
<td>Supported</td>
</tr>
<tr>
<td>(H2) Sociocultural preservation satisfaction</td>
<td>0.340</td>
<td>8.047 ***</td>
<td>0.113</td>
<td>Supported</td>
</tr>
<tr>
<td>(H3) Environmental protection satisfaction</td>
<td>0.360</td>
<td>8.100 ***</td>
<td>0.137</td>
<td>Supported</td>
</tr>
<tr>
<td>(H4) Environmental devastation satisfaction</td>
<td>−0.119</td>
<td>4.508 ***</td>
<td>0.030</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: β: path coefficient; *** p < 0.001.

4. Discussion

This study investigated local residents’ identification with tourism development and compares the results with the literature as shown below:

4.1. Indigenous Peoples’ Perception of Tourism on Sociocultural Preservation, Economic Benefit and Environmental Protection

In terms of socio-culture, indigenous peoples showed positive perceptions in the following ways: Self-esteem was reinforced, traditional skills and cultural activities were inherited and preserved, and indigenous history and cultural heritage were protected. The findings are consistent with Wang’s [46] empirical study on the Dalian area. Hence, in any places with tourism development, the issue of sociocultural preservation is critical. Lee [49] and Lee [50] also agreed that tourism development protected historic relics and tradition and enhanced residents’ openness.

In terms of economic benefit, the production and sales of agricultural products are increased, revenues of hostels or restaurants are increased, and job opportunities are increased. Generally speaking, residents suggest that tourism enhances regional revenues and personal incomes and triggers related industry development [49,50]. Among other benefits, increased job opportunities [51,52] are the most important for residents. After tourism development, economic benefits in a residential location can significantly improve residents’ living conditions, and residents expect the advantages and tend to neglect the latent negative impacts.

Other scholars have argued that tourism development leads to adjustment of the industrial structure and enhances development of the third industry [49,50]. In addition, they have suggested that tourism development results in more investment and upgrades residents’ material lives [46,50].
In terms of environmental protection, residents had positive perception which includes improved infrastructure and reinforcement of indigenous construction. This matches the research findings of Lee [49] and Lee [50]. As for environmental devastation, residents perceived more garbage, traffic jams, noise and ecology destruction. The implicit costs of tourism development are borne by residents and destinations. Therefore, environmental protection should be the priority for sustainable development of tourist destinations.

4.2. Relationships of EB, SP, EP, ED and SAT with Different Groups

According to indigenous peoples’ tourism perceptions of sociocultural preservation, economic benefit and environmental protection, residents who were born in the local area and lived there for at least 15 years show significantly higher identification with the socio-culture, economy and environment, in comparison to other categories. Past research on local residents’ (non-indigenous peoples’) perception of tourism development showed the same finding [53–61]. Some scholars have studied residents’ perceptions and obtained different findings that indicated the significant impact of residents’ genders and ages [62,63]. Palmer et al. [64] argued that place of birth or tourism promotion of the current residential place did not reveal a significant impact. Brougham and Butler [65] proposed that when residents have lived in the community for a longer time, they are more likely to resist tourists and the tourism industry.

Residents who were born in the local area and lived there for at least 15 years show more significant perceptions. The reason for this could be that older residents in the tribes experience the rise and development of the indigenous tourism industry, witness the change from the past to the present, and recognize that tourism industry development enhances employment and could be that traditional culture and environmental construction are protected.

4.3. Relationships of Sociocultural Preservation, Economic Benefit, Environmental Protection, Environmental Devastation and Residents’ Satisfaction

Sociocultural preservation, economic benefit and environmental protection positively influenced residents’ satisfaction, while environmental devastation had a negative impact on residents’ satisfaction. The finding is consistent with those of past research [54,65–76]. Impacts of the tourism industry on residents have existed in other countries [28,77,78], and it reveals the effects of sociocultural, economic and environmental factors on residents’ perceptions. Scholars have suggested that the social and cultural changes of a residential location resulted from the tourism industry and related development and demonstrated that when residents were active, they were more likely to recognize sociocultural impacts. Residents have stated that such changes were negative for the natural environment and damaged sociocultural tradition [79].

When residents are satisfied with tourism development, they will provide better services to the tourists in their residential location [80]. Residents’ perception of tourism development impacts increases and their lives are satisfied by various living conditions. The impact finally influences their overall life satisfaction, which is the effective measure to support tourism development. Respecting and cherishing local residents lead to sustainable development of tourism and the accomplishment of sociocultural preservation, economic benefit and environmental protection.

5. Conclusions

The present findings contribute to our knowledge regarding the relationships among sociocultural preservation, economic benefits, environmental protection, environmental devastation and satisfaction of indigenous tourism from local indigenous perspectives. As such, studies consistently show that sociocultural preservation, economic benefits, environmental protection and environmental devastation for indigenous tourism all contribute to tourism development satisfaction of indigenous groups. This study highlights the importance of sociocultural preservation, environmental protection and environmental devastation, as well as economic benefits during the indigenous tourism
development process. From our findings, sociocultural preservation and environmental protection had higher influences on residents’ satisfaction. When tourism development influences the local socio-culture, economy and environment, officials should listen to local residents’ voices and make necessary adjustments to related issues. Thus, with economic benefits, residents will be more willing to engage in the protection of the local natural environment and assets related to traditional culture. Hence, we suggest officials enhance these aspects for tourism satisfaction.

6. Limitations and Suggestions for Future Research

All data are based on self-reports, which means the magnitudes of the effects may have been biased due to common method variance [81]. The cross-sectional nature of our study may preclude the uncovering of cause–effect relationships. Therefore, we suggest future research should uncover more relevant factors impacting indigenous tourism satisfaction to enrich the studies on indigenous tourism development from residents’ perspectives.


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