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**INFLUENCE OF RESIDENTS' PLACE RELATIONSHIP ON
PERCEIVED IMPACT OF COMMUNITY-BASED TOURISM**

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Abstract

Community-based tourism may contribute to the sustainable development of a community but may also have negative impact. The relationships residents have with their own communities affect their perceived impact from tourism and, in turn, their participation and support. This study examines the correlation between residents' place relationship and perceived tourism impact in order to inform the development of community tourism.

The study was conducted in Greater Tainan, Taiwan. A total of 393 valid questionnaires were collected. Through factor analysis, factors for place relationship and perceived tourism impact were extracted. Regression analysis was then applied to understand the influence of these factors.

Analysis reveals significant correlation between place relationship and perceived tourism impact. Two factors were extracted for place relationship: "community participation" and "place attachment". Three factors were extracted for perceived tourism impact: "economic impact", "environmental impact" and "socio-cultural impact". The relationship between the factors is as follows: "community participation" significantly affects "economic impact" and "socio-cultural impact"; "place attachment" significantly affects "environmental impact" and "socio-cultural impact". Evidently, the different place relationships residents have with their communities also affect their perception differently. Both types of residents are concerned with the socio-cultural impact. However, residents active in community participation are more sensitive to the economic impact, while those with strong place attachment demonstrate stronger feelings about environmental change. Residents may be assigned to deal with different types of tourism impact-related problems according to their types of place relationship for optimal effectiveness.

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Keywords: Community-based tourism, place relationship, perceived tourism impact.



1. Introduction

As socio-economic development and quality of life improve, people also start to attach greater importance to leisure needs. Communities provide diversified and localized environmental resources. Leveraging talent, industry and culture in the community helps to promote its development, build connection among residents, and protect local cultural and natural resources. It also promotes local construction so that infrastructure is updated and maintained, thereby increasing local employment opportunities and income. All of the above contribute to the sustainable development of the community.

2. Problem Statement

Community-based tourism refers to residents taking the initiative to develop tourism within their own community. It emphasizes using natural local ecological resources, human resources (local residents), and landscape resources for tourism development. The cohesion of community awareness is the driving force behind the development of community tourism. When residents are willing to participate in tourism and even spearhead its planning, the planning process becomes more efficient, fair and rational (Buanes, Jentoft, Maurstad, Sørensen, & Karlsen, 2005).

The key to success in community tourism is residents' participation (Zhang, & Lei, 2012). However, negative impact may also result in the process, such as environmental destruction or conflicts in behavioural patterns or consumer attitudes. Many communities are adversely affected by tourism, with their residents taking the brunt of the impact, such as environmental pollution, economic mayhem even, or distortion or losses of cultural traditions. To avoid this undesirable outcome, scholars have carried out research on community participation and tourism development issues, studying the relationship between tourism development and the community and the community's role in promoting tourism development (Taylor, 1995). So came the concept of community involved tourism development.

Community tourism helps maintain the local culture and traditions, and educated tourists become genuinely concerned about the local residents. Participatory community tourism can promote social interests (Weaver, 2001). Community tourism also promotes environmental education and community participation, improves the protection of eco-tourism areas, encourages non-consumptive appreciation of natural resources, and raises environmental awareness (Zambrano, Broadbent, & Durham, 2010). Negative impact on local residents from the development of eco-tourism, which is a form of community tourism, may include the influx of newcomers, frustration in the younger residents, and cultural depravity. (Farooquee, Budal, & Maikhuri, 2008). It may also include mounting infrastructure costs, conflict with the indigenous culture, and the direct or indirect deterioration of the ecological environment (Lee & Jamal, 2008). It is therefore important to explore the impact of tourism on the inhabitants (Gunn & Var, 2002; Sebele, 2010).

Although the conception of community tourism is good and creates great resources for environmental education, its impact on various aspects of the community must be considered. The negative impact, in particular, should be addressed and preventative measures should be taken ahead of time. As such, this study seeks to understand the impact of community tourism development and its correlation with place relationship in the community..

3. Research Questions

The principles of community tourism are based on small groups and, as the name suggests, based in the local community with an emphasis on community empowerment and resource protection during the development process.

Place relationship is an abstract concept involving residents and the environment. Place attachment, on the other hand, is an emotional link generated through an understanding of the environment, experience, and identity (Seamon & Sowers, 2008). When people consider themselves as part of the environment, they start to develop attachment behaviour. That is, when a place represents positive value and meaning to its people, a positive emotional connection is generated between the place and the people, referred to as place attachment (Hidalgo & Hernandez, 2001). That includes place identity and place dependence, where place dependence refers to residents becoming functionally dependent of a place that fulfils their specific needs. If the place fulfills specific emotional needs, the residents develop place identity (Bricker & Kerstetter, 2000).

However, development may also have an impact on the community. “Impact” means a series of events related to a particular activity, its various aspects causing changes, benefits, or new conditions and all of the above possessing both sides of a coin. Orams (1995) classifies tourism impacts as direct or indirect effects by economic, social, cultural, and environmental factors. Many studies have also shown tourism brings not just positive impacts but also possibly negative ones for a place (Bachleitner & Zins, 1999; Dyer, Gursoy, Sharma, & Carter, 2007; Kaltenborn, 1998; Uysal, Sirgy, Woo, & Kim, 2016; Yoon, Gursoy, & Chen, 2001). Lee and Jamal (2008) point out the environmental impacts of tourism may include: reduced access to environmental resources, loss of infrastructure costs, conflict with indigenous cultures, and direct or indirect deterioration of the ecological environment. Therefore, measures should be taken to avoid or mitigate such impact at the start of development.

It can be concluded from the above literature that community tourism refers to a bottom-up form of tourism that utilizes a community's local industry and human resources in line with its characteristics. Considerations for its impact on residents may rank even higher in importance than strategic planning.

4. Purpose of the Study

In this study, the influence of place relationship on the perceptive tourism impact is discussed in depth, i. e how this influence performs. The research hypothesis is as follows: The place relationship of local residents has a significant influence their perceived tourism impact.

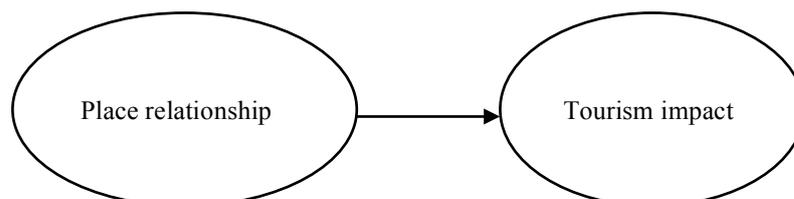


Figure 01. The research structure

5. Research Methods

5.1. Questionnaire design

This study subdivides 3 dimensions of tourism impact into 11 questions/items based on literature, with the dimensions being "environmental impact", "socio-cultural impact" and "economic impact". For place relationship there are 6 question/items under the dimensions of "place attachment" and "community participation". Each variable is measured on a five-point Likert scale.

5.2. Analytical method

Descriptive statistics is first applied to calculate the average and standard deviation of each variable to look for any consistency in opinions. In order to improve stability and consistency, an item analysis was carried out. An exploratory factor analysis (EFA) was then applied to extract meaningful factors out of items under various dimensions. In the analysis process, the KMO (Kaiser-Meyer-Olkin) sampling suitability test and the Bartlett sphericity test were used to determine whether the data was suitable for factor analysis. Then, Cronbach's alpha was calculated individually to confirm the reliability of the factors (Hair, 2010). Finally, a multiple regression analysis was applied to explore the relationship between the independent and dependent variables, using the linear relationships between the two to achieve a predictive effect.

5.3. Scope of study and sampling method

Tainan City is the cradle of Taiwan's history and culture, boasting a wealth of tourism resources and development potential. Selection was made based on the type of environmental resources communities have, and communities with more active development of tourism activities were chosen. Stratified quota sampling was used and then a comparison was made with the population to ensure the profile of the samples correspond with the population. A total of 432 questionnaires were sent out, and 393 valid and 39 invalid ones were collected.

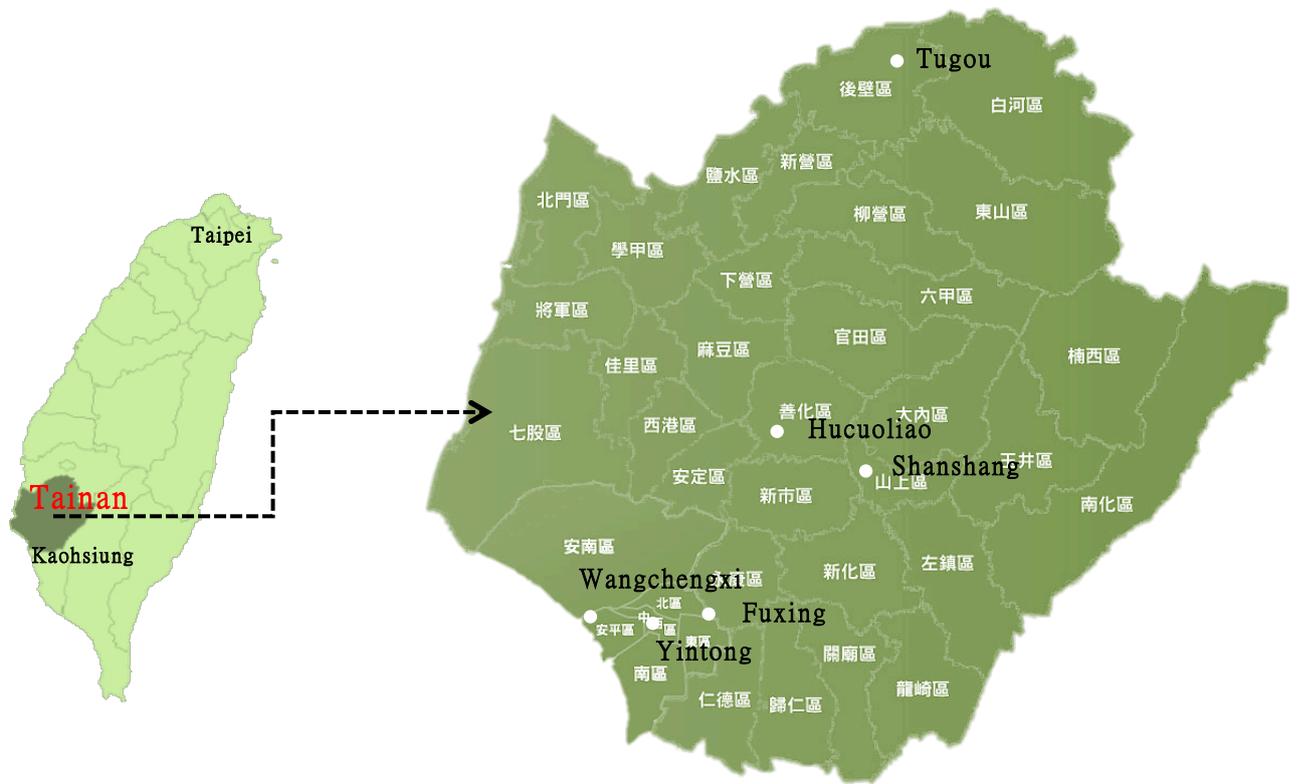


Figure 02. Research area

6. Findings

6.1. Reliability test

The results were compiled and analysed using the corrected item-to-total correlation and Cronbach's α coefficient after an item was deleted. The tourism impact dimension contains 11 items, with a Cronbach's α coefficient of 0.817; the place relationship dimension consists of 6 items, with a Cronbach's α coefficient of 0.859.

6.2. The influence of place relationship on perceived tourism impact

The causal relationships of the variables were explored by regression analysis. Tourism impact was treated as a dependent variable and place relationship as an independent variable. Tourism impact is shown to significantly influence the perception of tourism impact. The standardized regression coefficient is 0.335 ($t = 7.034$, $P \leq 0.001$) (Table 1), falling under a medium to large effect size. This finding shows residents' place relationship significantly influences perceived tourism impact.

Table 01. Regression analysis for place relationship and tourism impact

Mode	Unstandardized Coefficient		Normalized coefficient	t
	B estimated	Standard deviation	Beta distribution	
(Constant)	2.065	0.183		11.265***
Place relationship	0.330	0.047	0.335	7.034***
R ² =0.112		adjusted R ² =0.110	F=49.471***	
Dependent variable = tourism impact				
Independent variable = place relationship				

6.3. Factor analysis for place relationship and tourism impact

The study applies factor analysis to extract factors. KMO and Bartlett test scale were first used to verify the adequacy of factor analysis, and then the extracted factors are named .

- Factor analysis for place relationship

The results of KMO and Bartlett tests results are shown in Table 2 below. The KMO value is 0.781. The significance of Bartlett's sphericity test is <0.05, showing significance is reached and factor analysis is suitable. Results from the shaft component matrix test were named, according to the composition of factors and in reference to past literature, as "community participation" and " place attachment", as follows:

Table 02. Factor analysis for place relationship

Place relationship evaluation items	Name of factors	
	Community participation	Place attachment
B7- I participate actively in community organizations and offer my personal opinions	.892	.178
B8- I take the initiative to provide assistance in organizing community events	.867	.138
B6- When I need help, I can get timely assistance from my neighbors	.756	.305
B5- I feel deep affection for this neighborhood	.735	.302
B1- I am proud of this community	.229	.904
B2- Living in this community makes me happy	.241	.902
Kaiser-Meyer-Olkin (KMO)	0.781	
Bartlett Sphericity test	chi-square test	1277.843
	df	15
	(p)	0.000

- Factor analysis for tourism impact

After deleting the double-loaded item A6, the test results were renamed, according to the composition of factors, as "environmental impact", "economic impact" and "social culture impact" as follows:

Table 03. Factor analysis for tourism impact

Community tourism impact evaluation items	The name of factors		
	Environmental impact	Economic impact	Social and cultural impact
A2-Community tourism development has increased pollution of the environment	.940	.121	.091
A1- Community tourism development has resulted in traffic jams	.834	-.012	.100
A5-Community tourism development has disturbed the tranquility of the area	.709	.082	.110
A4-Community tourism development has caused damage to the natural environment	.670	.202	-.016
A13-Community tourism development has increased my income	.139	.684	.059
A10-Community tourism development helps increase job opportunities in the community	-.090	.610	.307
A12-Community tourism development has increased the cost of living	.367	.672	.092
A8-Community tourism development promotes residents' understanding of the community's history and culture	.017	.108	.761
A7-Community tourism development has increased residents' self-confidence	.101	.018	.696
A9-Community tourism development has changed the local culture of the community	.116	.213	.675
Kaiser-Meyer-Olkin (KMO)			0.768
Bartlett Sphericity test	chi-square test		1576.289
	df		45
	(ρ)		0.000

6.4. Multiple Regression Analysis of Place Relationship and Tourism Impact Factors

- Causal relationship between the factors

The above factor analysis reveals the following structure for the two dimensions under research, place relationship and perceived tourism impact as shown in Figure 3.

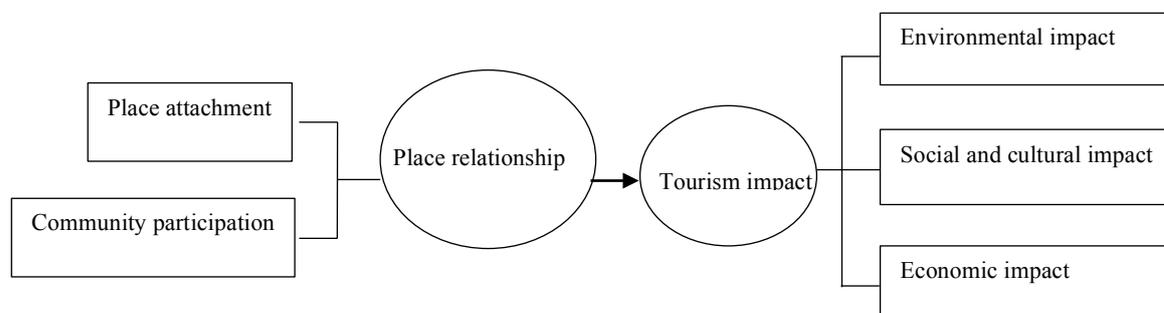


Figure 03. Structure diagram of the factors and variable relationships

6.5. Effect of place relationship on perceived tourism impact

Considering the collinearity of multiple dependent items, multivariate regression analysis was applied first in order to avoid the probability of type I error amplification. The results showed that X1 and X2 had significant effect on Y1, Y2, and Y3, so individual multiple regression analysis could be performed. Regression analysis was used to examine cause and effect relationships individually. When the environmental impact is set as the dependent variable and place attachment and community participation the independent variables, place attachment appears to have significant effect on environmental impact, with a standardized regression coefficient of 0.141 ($t = 2.817, P \leq 0.001$) (Table 4). Evidently, when residents feel a strong place attachment, they show more obvious perception of their living environment being polluted, the peace and quiet being disturbed by tourist intrusions, traffic congestion, and even threats to the natural environment. In other words, the stronger their place attachment, the greater environmental impact they feel. This result coincides with studies by Kaltenborn (1998) and Lee and Jamal (2008). Residents with stronger place attachment also feel a greater threat to their lives (Vargas-Sánchez, Porras-Bueno, & de los Ángeles Plaza-Mejía, 2013).

Table 04. Regression analysis: place attachment, community participation, and environmental impact

Mode	Unstandardized Coefficient		Normalized coefficient	t
	B estimated	Standard deviation	Beta distribution	
(Constant)	2.686	0.252		10.653***
Place relationship	0.174	0.062	0.141	2.817**
	$R^2=0.020$	adjusted $R^2=0.017$	$F=7.934$	

Dependent variable = environment impact
 Independent variable = place attachment, community participation

With the economic impact as the dependent variable and place attachment and community participation as independent variables, community participation is shown to have a significant effect on the economic impact. The standardized regression coefficient was 0.311 ($t = 6.467, P \leq 0.001$) (Table 5). Therefore, when residents actively participate in community organizations, handle community activities and foster deep friendships, they also tend to put hope in seeing tourism bring more work experience to the community, increase income and raise living standards. This result is the same as studies by Orams (1995) and Weaver (2001). They argue that in community participation, residents regard community tourism as a means to promote economic recovery.

Table 05. Regression analysis: place attachment, community participation, and economic impact

Mode	Unstandardized Coefficient		Normalized coefficient	t
	B estimated	Standard deviation	Beta distribution	
(Constant)	1.643	0.214		7.692***
Community participation	0.367	0.057	0.311	6.467***
	$R^2=0.097$	adjusted $R^2=0.094$	$F=41.825$	

Dependent variable = environment impact
 Independent variable = place attachment, community participation

With the socio-culture impact as the dependent variable and place attachment and community participation as independent variables, both place attachment and community participation were shown to have significant effects on socio-culture impact. The standardized regression coefficients were 0.297 ($t = 5.606, P \leq 0.001$) and 0.188 ($t = 3.556, P \leq 0.001$) (Table 6). Evidently, residents and those involved in community organizations alike see their personal confidence and their own understanding of the community's history and culture grow as tourism develops in the community. This result coincides with the studies of Olya and Gavilyan (2016) and Sheldon and Abenoja (2001).

Table 06. Regression analysis: place attachment, community participation, and socio-cultural impact

Mode	Unstandardized Coefficient		Normalized coefficient	t
	B estimated	Standard deviation	Beta distribution	
(Constant)	1.602	0.218		7.493 ^{***}
Place attachment	0.307	0.055	0.297	5.606 ^{***}
Community participation	0.201	0.057	0.188	3.556 ^{***}
	$R^2=0.179$	adjusted $R^2=0.175$	$F=12.645^{***}$	

Dependent variable = socio-culture impact
 Independent variable = place attachment, community participation

7. Conclusion

Community-based tourism can help increase local income and employment opportunities and contribute to the sustainable development and management of a community. On the other hand, it may also cause a negative impact. In light of the fact community tourism relies heavily on the participation and support of the residents, this study attempts to understand the interaction between place relationship and perceived tourism impact to inform community tourism development.

The results show that place relationship exerts great influence on the perception of tourism impact. Among various place relationship factors, "place attachment" significantly affects environmental and socio-cultural impact, and "community participation" clearly influences economic and socio-cultural impact. In other words, residents active in community participation are more sensitive to the economic impact, while residents with stronger place attachment can more readily perceive environment changes. Residents with both types of place relationship are concerned about social, historical and cultural impact.

Therefore, residents with different types of place relationship will have sensitivities to different types of tourism impact. Residents with strong community participation may be assigned to address the community's economic development and economic impact, while those with strong place attachment are great candidates to address environmental development and environmental impact. Both types are concerned about socio-cultural impact, which may therefore be discussed and managed by all residents. Furthermore, reinforcing place relationships in various ways helps improve their perception of tourism impact and indirectly affect their attitude toward the development of community-based tourism. All in all, enhancing residents' place relationships and reducing undesirable impact from community-based tourism contributes positively to the development of community tourism.

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