Research on the Supporting of Destination Community Residents from the Perspective of Tourism Sharing

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Abstract. Based on the perspective of tourism sharing, this research judges the impact of tourism development for destination from the six dimensions of economy, politics, facilities, environment, culture and idea on the basis of previous studies. Fuzzy set qualitative comparison (fsQCA) method is used to explore how the residents' perception to the six dimensions affects the local residents' tourism and rail transport support. The results show that high level economy sharing, high level facility sharing and high level idea sharing make it easier for destination resident to generate high level tourism development support, while low level economy sharing, low level facility sharing, low level cultural sharing and low level ideal sharing are more likely to result in lower level tourism development support from local residents. In terms of rail transit support, high level economy sharing, high level facility sharing, and high level ideal sharing make it easier for local residents to generate high level rail transit support, while low level economy sharing, low level facility sharing, and low level ideal sharing are more likely to result in low level support for rail transit construction. Based on the results, this study discusses the impact of the survey results on the study of destination tourism planning and development.

1. Introduction

It's obviously to observe that many tourism destinations has gained a lot of benefits from the rapid economic development. Tourism industry has become an important driving potential for the growth of national incomes of many tourist destinations. Meanwhile, tourism industry has the reputation of "smoke-free industry" and "sunrise industry", so more and more ec-tourism destinations choose to adopt tourism development to promote local economic development. However, with the rapid development of mass tourism, the negative effects brought by tourism development to tourism destinations have gradually emerged. The influx of a large number of tourists has led to an increase in local environmental problems, such as, noise pollution, declining air quality, increased water pollution, and reduced biodiversity. These environmental problems have generated many negative influence, such as, damage to local ecosystems, affecting destination sustainable development, increased contradiction between local residents and tourism development. To guarantee tourism destination sustainable development, it is important to address the relationship between local residents and tourism development. Therefore, the most important things should be assessing the attitude of local residents to the tourism development, and making it clear how local residents handle the relationship with tourism from different aspects before promoting tourism development for one destination, what is an important prerequisite for sustainable development. Only in this way, can the destination achieve harmonious coexistence with tourism development.

This study takes the Wolong special administrative region as a case. It is affiliated to the Aba Tibetan and Qiang autonomous prefecture of Sichuan province. Wolong Nature Reserve is located in Wenchuan county, Aba prefecture, on the southeastern edge of the Qionglai mountain range. It covers an area of 200,000 hectares and is 120 kilometers away from Chengdu. Wolong special administrative region is a comprehensive national nature reserve in order to protect rare wild animals and plants such as giant pandas and alpine forest ecosystems. Wolong has the reputation of "Panda Kingdom", "Natural Zoo", "Botanical Garden" and "Precious Bio-Broad Gene Bank".

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Compared with the surrounding tourist areas, Wolong has rich tourism resources and has the advantage of developing natural resources for tourism. At the same time, the unique ecosystem not only makes the region have diverse and unique biological resources, but also makes this ecosystem more fragile and easily damaged. In order to promote local sustainable development, this study explores the relationship between local residents and tourism, and clarifies the attitude of local residents towards tourism development. Thus, the study aims to explore the support of local residents from the perspective of tourism sharing, and to ensure the harmonious development of tourism destinations.

2. Literature Review

2.1. Study on the Support of Residents in Tourism Destination Communities

The concept of sustainable development has been widely used in tourism. This development concept requires the tourism development not only to meet the tourists' needs, but also to benefit tourism destinations. This kind of benefit is not only reflected in the destinations' promotion to economic development, providing more employment opportunities and more income for the destination residents, but also reflected in better protecting the destination ecological environment, and improving the residents' living quality. In short, sustainable tourism development emphasizes the harmonious symbiosis of the various elements existed in destination through tourism development. In the development process, it triggered a series of research problems. The relationship between destination residents and tourism development is a hot issue. The destination residents attitude to tourism development is an important issue concerning whether destination tourism can achieve sustainable development. Therefore, community-based tourism development has become an important tool for tourism destinations' sustainable management(Sebele, 2010; Taylor, 1995).

In research on issues related to community tourism development, social exchange theory is used to assess residents' support for tourism development. Residents in a community decide whether to rely on the tourism industry to obtain the corresponding benefits and pay the corresponding costs by weighing economic, social, cultural, political and environmental issues (Ap, 1992; Gursoy, Chi, & Dyer, 2010; Nunkoo & Ramkissoon, 2011; Yoon et al., 2001). Based on this theory, if residents believe that through the development of tourism, the destination can benefit from economic, cultural, political, environmental, social and other aspects at a lower cost, then these residents are very likely to support the development of tourism, and they can interact with tourists better. However, if the residents believe that developing tourism requires more costs, such as environmental pollution, rising land prices, traffic congestion, cultural degradation, they may object to tourism activities at the destination (Ap, 1992; Gursoy et al., 2002; Jurowski, Uysal, & Williams, 1997).

Tourism is a kind of economic activity, thus, it must first be economically viable from the sustainable perspective. Economic sustainability means optimizing growth rates at a manageable level, taking fully into account the limitations of the destination environment. Secondly, environmental sustainability has enabled people to realize that the natural resources of a single community and of the world should not be considered to be rich resources. In fact, these resources are constantly being exhausted. The natural environment must be protected in its own intrinsic value and as current and future generations of resources. Thirdly, sociocultural sustainability means respect for social identity, social capital, community culture and its assets, including strengthening social cohesion and pride, so that community residents can control their own lives. According to Pearce (1993), McIntosh, Goeldner and Ritchie (1995), sustainable development is a political concept, so the achieving the goal of sustainable development depends to a large extent on the political system and power distribution of society. For example, although one of the objectives of sustainable community tourism is to improve the quality of life of local residents in developed and developing countries. However, the government controls the tourism development, as a result, local

residents are often excluded from the decision-making process. In fact, in order to make the sustainable community tourism a reality, the residents must play a decision-making role (Hart, 1998; Pigram, 1990;Simmons, 1994). Only when the local people feel the benefits of economy, culture, politics, idea and so on from tourism development, and participate in the process of tourism development from many aspects, will they support the related problems of tourism development to a certain extent.

In recent years, many empirical studies have used structural equation modeling (SEM) to examine factors affecting the residents' attitude to tourism development, such as perceived development extent to economy, culture, society, politics, and environment (Choi & Murray, 2010; Dyer et al., 2007; Nunkoo & Ramkissoon, 2011; Oviedo-García, Castellano-Verdugo, & Martín-Ruiz, 2008; Yoon et al., 2001; Monterrubios et al, 2012; Monterrubios et al, 2015). While, the structural equation model (SEM) is a quantitative method. It simply confirms the causal relationship between the variables. The problem of the residents support is very complicated. There is a high probability of nonlinear, heterogeneous, and dynamic evolution between variables. A simple linear approach does not adequately explain the complex interactions between all indicators. Therefore, in order to better explain this complex phenomenon, this study introduces a combination method of qualitative research analysis and quantitative research analysis to understand the complex relationship between the antecedent variables and the outcome variables.

In the study the destination plans to promote the local tourism development through the development. The rail transit development is expected to have certain impact on the economic, cultural, environmental, political and social aspects of the destination. Therefore, the residents' support for the local development of rail transit will be affected by the sharing degree of economy, culture and environment. Based on this, this study adds rail transit support to the outcome variable to provide a more complete understanding of the destination residents attitude.

2.2. Study on the Sharing Value of Tourism from the Perspective of Sustainability

Previous studies have shown that tourism development is mainly influenced by economic, cultural and environmental factors (Nunkoo & Ramkissoon, 2012; Vargas-Sanchez, Plaza-Mejia, & Porras-Bueno, 2009). In addition, in the long-term tourism development, tourism have positive and negative impact on the local community (Prayag et al., 2013; Vajirakachorn et al, 2014). For example, from an economic perspective, tourism may increase employment opportunities and improve people's living standards, but it may also increase the living cost and increase living expenses (Ko & Stewart, 2002; Nunkoo & Ramkissoon, 2012; Upchurch & Teivane, 2000). From the perspective of social culture, the development of tourism provides a platform and more opportunities for cultural exchange, but it may also lead to social problems, such as, rising crime rates and decadence of morality (Ap & Crompton, 1998; Dyer et al., 2007). At the same time, tourism is often considered to be the cause of environmental pollution, noise pollution and traffic congestion. However, tourism development may also have a positive impact on the environment by improving the appearance of the area, enhancing natural and cultural protection.

A large number of studies on social exchange theory have confirmed that residents' perception of the tourism impact has an important influence on the residents' support for tourism development (Nunkoo & Ramkissoon, 2011, 2012). Some researchers divide the tourism potential impact into two levels: cost and benefit. It is generally indicated that there is a direct negative correlation between perceived costs and support for tourism development, and there is a direct positive correlation between perceived benefits and support (Lee, 2013; Nunkoo & Gursoy, 2012; Nunkoo & Ramkissoon, 2011). Although this approach is relatively straightforward and not complicated, tourism industry has an impact on all aspects of community life. Therefore, such research can only provide the factors local residents perceived, which may hinder the predictive ability of the structural model (Gursoy et al., 2010; Nunkoo & Ramkissoon, 2012). Other researchers have divided the factors into economic aspect, socio-cultural aspect, and environmental aspect from the nature and scope of the factors' impact, in order to understand the relationship between the degree of perceived impact and the residents' support more completely. For example, Gursoy and

Rutherford (2004) studied the impact of economic, social, cultural, and cultural costs on residents' support. Recent studies have also explored tourism development has a negative and positive impact on the economy, culture and environment (Prayag et al., 2013).

When classify the factors that influence the support, the nature and the scope of factors' impact should be considered in order to better understand the residents' response to the tourism industry. This approach reflects the positive and negative impacts of tourism development on different areas, and also reflects the residents' wishes of the destination. To a large extent, these factors explain the differences between the residents' support. For example, research by Gursoy and Rutherford (2004) shows that during the economic recession, the residents in tourism community pay more attention to the economic benefits from tourism, rather than the perceived socio-cultural and cultural influences. However, whether judging the residents' perception to the influence of tourism from the perspective of cost or benefit, from the perspective of factors' nature and influencing scope, namely, economic, social culture, environment, and politics, these studies all rely on transforming these effects into positive or negative effect, or just costs and benefits. In both methods, respondents have no autonomy or opportunity to indicate the extent of positive or negative impact, but only to express their extent to agreement to positive or negative statements preseted (Andereck et Al., 2005; Ap & Crompton, 1998). For example, the tourism industry "creates jobs", "creates more business opportunities for local people" or "improves the prices of goods and services". This reflects the researcher's assessment of the potential impact, rather than the evaluation of the residents' own views.

Therefore, in order to overcome the bias caused by the measurement method, this study uses non-mandatory methods to measure each item, so that people can more freely express their positive or negative perception of the tourism impact and judge their support objectively.

3. Research Method

3.1. Fuzzy Set Qualitative Comparative Analysis

Although the quantitative analysis method can easily confirm the causal relationship between variables, it is difficult to rule out the existence of other explanatory antecedent conditions, which leads to the research logic being too "constrained". In order to better understand the complex relationship between explanatory variables and interpreted variables, this study used a qualitative comparative analysis (QCA) based on fuzzy sets to do research on factors influencing local residents' tourism support and rail transit support. The principle of QCA analysis is to explore the combination relationship between the preconditional variables and the outcome variables based on Boolean algebra. The basis of the method is to transform the variables into binary variables and use the following symbols to explain the relationship between the variables: "→" means "cause" relationship, "+" means "or" relationship, "*" means "and" relationship, and "~" means "not" relationship. If the variable X is contained in Y, then X is a sufficient condition for Y; otherwise, X is a necessary condition for Y. Even if there is no correlation between X and Y, there is still a perfect affiliation between them.

3.2. Data Sources

The research team obtained the data from questionnaire. These questionnaire were accomplished by local residents in Wolong from December 16, 2018 to December 24, 2018 and reflected tourism sharing and local residents' support attitude. Finaly, 185 questionnaires were obtained. The tourism sharing has six dimensions, namely economic sharing, political sharing, facility sharing, environmental sharing, cultural sharing, and ideal sharing. Support has two dimensions, namely rail transit support and tourism support. Each dimension has related items to measure. The study used a 5-point Likert scale to score each item. Since fsQCA has a relax restriction on the number of research samples, 185 research samples have been considered as large research samples. Meanwhile, the method combines with qualitative analysis and quantitative analysis. Therefore, this study used

the fsQCA method to analyze the data obtained in this study.

4. Statistical Results and Analysis

4.1. Reliability and Validity

Table 1 Results of reliability and convergent validity

Construct	Items	Facter loading	Cronbach's α	AVE	CR
Economy sharing	D1	0.907	0.839	0.675	0.891
	D2	0.905			
	D3	0.716			
	D4	0.739			
Politics sharing	E1	0.662	0.750	0.537	0.822
	E2	0.701			
	E3	0.815			
	E4	0.746			
Facility sharing	F1	0.896	0.879	0.805	0.925
	F2	0.901			
	F3	0.895			
Environment sharing	G1	0.744	0.885	0.686	0.916
	G2	0.907			
	G3	0.858			
	G4	0.812			
	G5	0.811			
Culture sharing	H2	0.856	0.877	0.676	0.912
	H3	0.856			
	H4	0.881			
	H5	0.835			
	H6	0.662			
Idea sharing	I1	0.636	0.790	0.613	0.862
	I2	0.812			
	I3	0.818			
	I4	0.849			
Railway support	C1	0.894	0.947	0.962	0.962
	C2	0.936			
	C3	0.943			
	C4	0.943			
Tourism support	J1	0.861	0.887	0.748	0.922
	J2	0.901			
	J3	0.890			
	J4	0.805			

Table 2 Results of discriminant validity

	Politics sharing	Culture sharing	Tourism support	Environment sharing	Idea sharing	Economy sharing	Facility sharing	Railway support
Politics sharing	0.733							
Culture sharing	-0.220	0.822						
Tourism	-0.121	0.411	0.865					

support								
Environment sharing	-0.006	0.161	0.164	0.828				
Idea sharing	-0.282	0.361	0.669	0.179	0.783			
Economy sharing	-0.236	0.408	0.400	0.258	0.312	0.822		
Facility sharing	-0.101	0.335	0.535	0.239	0.478	0.477	0.897	
Railway support	-0.145	0.332	0.557	0.115	0.507	0.386	0.526	0.929

Notes: the values on the diagonal are $\sqrt{AVE}$

To validate the constructs, the research model was estimated using confirmation factor analysis in SmartPLS. The reliability of the research was measured by item reliability and composite reliability. The items reliability was checked by Cronbach's α and standardized factor loading. All the variables Cronbach's α were more than 0.750 (Table 1), and all the standardized factor loading for each item were greater than recommended threshold of 0.5, indicating that it had a high item reliability(Woodside, 2014). The composite reliability of alll the constructs range from 0.822 to 0.962 (Table 1), surpassing the accepTable level of 0.7 (Nunnally & Bernstein, 1994), which meant the research has a good composite reliability. Convergent validity exists because all AVE values exceeded the suggested cut-off of 0.50 (Hair, Black, Babin, Anderson & Tatham, 2006). Discriminant validity was also tested. Fornell and Larcker (1981) indicated that discriminant validity exists when the proportion of variance extracted in each construct exceeds the square of the coefficient representing its correlation with other constructs. As show in Table 2, all AVE bits square root values were greater than the correlations between constructs, indicating an adequate level of discriminant validity (Meng B & Choi K, 2016).

According to the SmartPLS, the predictive relevance Q^2 should be greater than 0, all the outcome variables Q^2 value were surpassing the threshold, indicating the prediction correlation of the study was significant. The goodness of model fit GOF is 0.570, indicating the model has a good model fit goodness. Thus, the six antecedents are suiTable for fsQCA analysis.

4.2. Calibration of Variables and Calculation of Truth Table

This study selects economic sharing, political sharing, facility sharing, environmental sharing, cultural sharing, and idea sharing as antecedent conditional variables. The local residents' tourism support and rail transit support are the outcome variables. Two models are formed based on the two outcome variables. A model with "tourism support" as a outcome variable is referred to as "model A", and a model with "railway support" as a result variable is referred to as "model B". Specifically, the model with "high level tourism support" as the outcome variable is model "A1"; the model with "low level tourism support" as the outcome variable is model "A2"; the model with "high level rail transit support" as the outcome variable is model "B1", and "low level rail transit support" as the outcome variable is model "B2". To facilitate the calculation in the fsQCA software, the study simplifies the names of the variables: "Eco" stands for "economy sharing", "Plo" stands for "politics sharing", "Inf" stands for "facility sharing", "Env" stands for "environment sharing", "Cul" stands for "culture sharing", "Idea" stands for "idea sharing", "Tou-s" stands for "high level tourism support" and "Rail-s" stands for "high level railway support", "~Tou-s" stands for "low level tourism support" and "~Rail-s" stands for "low level railway support",. The degree to condition value belonging to the corresponding set is calculated as the membership degree of 0-1, and the closer to 1, the higher the membership degree. 0 means no membership at all, 1 means complete membership, and 0.5 means semi-affiliation. According to the degree of membership, a corresponding truth Table can be obtained, such as, Table 3 shows the truth Table taking economy sharing, politics sharing, facility sharing, environment sharing, cultural sharing, and idea sharing as antecedent condition variables, and local residents' rail transit support as an outcome variable. The

following calculation in fsQCA software is performed by the truth Table.

Table 3 Truth Table (outcome variable= high level railway support)

Eco	Plo	Inf	Env	Cul	Idea	number	Rail-s	Raw consist.	PRI consist.	SYM consist
1	0	1	1	1	1	12	1	0.97954	0.96029	0.96029
1	1	1	1	1	1	6	1	0.991712	0.979495	0.985714
1	0	1	0	1	1	6	1	0.986882	0.967369	0.967369
1	0	1	1	1	0	3	1	0.979489	0.92551	0.939897
0	1	0	0	0	0	3	1	0.841474	0.399414	0.399413
0	1	1	0	1	1	3	1	0.977878	0.90824	0.936294
1	1	1	1	0	1	2	1	0.970881	0.908212	0.908212
1	1	1	1	1	0	2	1	0.985284	0.950119	0.950119
1	0	0	1	1	1	2	1	0.968804	0.860465	0.860465
0	1	1	1	0	1	2	1	0.977523	0.907441	0.92081
1	0	1	0	0	1	1	1	0.985901	0.95354	0.95354
1	1	1	0	0	1	1	1	0.980258	0.928349	0.928349
1	1	1	0	1	1	1	1	0.986375	0.953258	0.953258
0	0	1	1	0	1	1	1	0.974414	0.90042	0.900421
0	1	1	1	0	0	1	1	0.968928	0.829737	0.829736
0	0	1	1	0	0	1	1	0.967143	0.814517	0.839917
0	0	0	1	0	0	1	1	0.871478	0.412874	0.414827
0	0	0	0	0	0	1	1	0.845385	0.358231	0.362239
0	0	1	1	1	1	1	1	0.973951	0.904821	0.921915
0	1	1	1	1	0	1	1	0.973799	0.845759	0.856771
0	0	0	1	1	1	1	1	0.9689	0.842424	0.842424
0	1	0	0	1	1	1	1	0.967808	0.789297	0.830986
0	0	0	0	1	1	1	1	0.965306	0.816018	0.816018
0	1	0	0	1	0	1	1	0.870902	0.411216	0.411215

4.3. Necessity Analysis of Single Antecedent Variable

Table 4 Single variable necessity testing (outcome variable = tourism support)

Variable	Meaning	Outcome variable: Tou-s		Outcome variable: ~Tou-s	
		Consistency	Coverage	Consistency	Coverage
Eco	High level economy sharing	0.805455	0.754579	0.708884	0.450549
~Eco	Low level economy sharing	0.413504	0.67676	0.61386	0.681598
Plo	High level politics sharing	0.45289	0.720856	0.55693	0.601396
~Plo	Low level politics sharing	0.749571	0.713767	0.741495	0.479023
Inf	High level infrastructure sharing	0.87059	0.827878	0.606269	0.391131
~Inf	Low level infrastructure sharing	0.359718	0.573862	0.733202	0.793549
Env	High level environment Sharing	0.740798	0.769566	0.686393	0.483753
~Env	Low level environment Sharing	0.503052	0.702771	0.673039	0.637889
Cul	High level culture sharing	0.780946	0.780054	0.649423	0.440083
~Cul	Low level culture sharing	0.439443	0.648831	0.675429	0.67657
Idea	High level idea Sharing	0.820619	0.876809	0.484959	0.351538
~Idea	Low level idea Sharing	0.393096	0.529412	0.830053	0.758412

Table 5 Single variable necessity testing (outcome variable = railway support					
Variable	Meaning	Outcome variable: Rail-s		Outcome variable: ~Rail-s	
		Consistency	Coverage	Consistency	Coverage
Eco	High level economy sharing	0.827972	0.853122	0.766276	0.415349
~Eco	Low level economy sharing	0.432585	0.778679	0.729025	0.690338
Plo	High level politics sharing	0.453135	0.79326	0.611999	0.5636
~Plo	Low level politics sharing	0.750716	0.786234	0.775506	0.427261
Inf	High level infrastructure sharing	0.868551	0.908407	0.666391	0.366645
~Inf	Low level infrastructure sharing	0.394433	0.692073	0.833525	0.769359
Env	High level environment Sharing	0.733721	0.83832	0.792483	0.476322
~Env	Low level environment Sharing	0.541663	0.832267	0.731003	0.59086
Cul	High level culture sharing	0.770832	0.846828	0.754573	0.436083
~Cul	Low level culture sharing	0.48669	0.79034	0.734959	0.627851
Idea	High level idea Sharing	0.751757	0.883432	0.565188	0.349398
~Idea	Low level idea Sharing	0.446371	0.661186	0.811439	0.632288

Truth Table analysis is essentially a sufficient conditional analysis, and any combination of sufficient conditions must be interpreted in conjunction with the necessary conditions. Therefore, it is necessary to test whether a single variable is necessary before performing the conditional combination analysis, and to explore the importance of each antecedent condition in the model based on the analysis results. Whether the variable is a necessary condition depends on the consistency of the variable. According to the recommendations of Schneider and Wagemann (2010), if the consistency of an antecedent condition exceeds 0.9, then the antecedent condition can be regarded as a necessary condition. Perform the necessity analysis in the fsQCA software to obtain the consistency score of each individual variable to the result variable, as shown in Table 4 and Table 5.

From Table 4, when the outcome variable is travel support, whether it is high level tourism support or low level tourism support, the consistency score of no variables exceeds 0.9. This shows that no one single condition variable is an necessary part to result in high level tourism support or low level tourism support. From Table 5, when the outcome variable is the rail transit support, there is still no consistency score of any variable above 0.9, whether for high level rail transit support or low level rail support. That also shows that no one single condition variable is an necessary part to result in high level railway support or low level railway support.

4.4. Condition Combination Analysis

Based on the above analysis, this study analyzes the sufficiency of the combination of high level tourism support, low level tourism support, high level rail transit support and low level rail transit support. In evaluating the interpretation of the combination of condition variables to outcome variables, the fsQCA analysis introduces two indicators, consistency and coverage. Consistency is often used to measure the extent to which a given antecedent condition or combination of pre-conditions results in an outcome. Coverage refers to the interpretation level of the results happening based on combination of conditions or conditions. The formulas are as follows (Ordanini et al., 2014):

$$Consistency(X_i \le Y_i) = \sum(\min(X_i, Y_i)) / \sum(X_i) \qquad (1)$$

$$Coverage(X_i \le Y_i) = \sum(\min(X_i, Y_i)) / \sum(X_i) \qquad (2)$$

The two formulas represent the consistency and coverage calculation formula, X_i represents the membership degree of individual i in X, and Y_i represents the membership degree of individual i in Y. The consistency range is 0-1, and the consistency is 1, indicating that X is completely subordinate to Y. In general, a consistency value of not less than 0.75 is considered accepTable. The range of coverage is also 0-1, and the closer to 1, the more explanatory the uniqueness of the set.

The truth Table is operated in the fsQCA software, and the preconditional configuration is determined according to an intermediate solution (also referred to as an optimization solution). This study determines the composition of model A1, model A2, model B1, and model B2 with the results of "high level tourism support", "low level tourism support", "high level rail transit support" and "low level rail transit support". The specific analysis results are shown in Table 6, Table 7, Table 8, and Table 9.

Table 6 Pre-conditional configuration of high level tourism support

Model A1: Tou-s = f (Eco, Plo, Inf, Env, Cul, Idea)	raw coverage	unique coverage	consistency
A1-1: ~Eco*Inf*Env*~Cul	0.287431	0.00581735	0.813276
A1-2: Eco*Inf*~Env*Idea	0.381747	0.044345	0.942326
A1-3: ~Plo*Env*Cul*Idea	0.501717	0.0267978	0.926886
A1-4: Eco*Inf*Env*Cul	0.578867	0.0419607	0.869753
A1-5: ~Eco*~Inf*~Env*Cul*Idea	0.226588	0.00915509	0.922719
A1-6: ~Eco*Plo*~Env*Cul*Idea	0.211711	0.00896442	0.964379
A1-7: Eco*Plo*Inf*Idea	0.335495	0.00257486	0.952871
A1-8: ~Eco*Plo*Inf*Env*~Idea	0.192543	0	0.824418
A1-9: Plo*Inf*Env*Cul*~Idea	0.237173	0	0.849095
A1-10: Plo*Inf*Env*~Cul*Idea	0.247854	0.00143045	0.952363
solution coverage: 0.752051			
solution consistency: 0.851528			

Table 7 Pre-conditional configuration of low level tourism support

Model A2: ~Tou-s = f (Eco, Plo, Inf, Env, Cul, Idea)	raw coverage	unique coverage	consistency
A2-1:~Eco*~Inf*~Env*~Cul*~Idea	0.455018	0.0316278	0.940715
A2-2:~Eco*~Plo*Env*~Cul*~Idea	0.413691	0.0189767	0.899175
A2-3:~Eco*Plo*~Inf*~Env*Cul	0.32921	0.00534165	0.85819
A2-4:~Eco*~Plo*~Inf*Cul*Idea	0.298144	0.0337363	0.801587
A2-5:~Eco*Plo*Inf*Env*~Idea	0.295333	0.00576335	0.857901
A2-6:Eco*Plo*Inf*~Env*~Cul*Idea	0.265954	0.0320495	0.812018
solution coverage: 0.583216			
solution consistency: 0.776239			

It can be seen from Table 6 and Table 7 that the consistency of each antecedent conditional configuration is higher than 0.8, and the overall consistency is 0.851528, 0.776239, respectively, and the threshold value is about 0.8, and the overall coverage reaches 0.752051, 0.583216. The model is well explained. The study found that there are 10 antecedent conditional configurations that can lead to local residents' high tourism support. The combination of A1-2 (Eco*Inf*~Env*Idea) has the highest degree of consistency, which is 0.942326. High level economic sharing, high level facility sharing, high level idea sharing, and low level environmental sharing are likely to generate high level tourism support. There are 6 kinds of antecedent conditional configurations that lead to low level local residents' tourism support. The combination A2-1 (~Eco*~Inf*~Env*~Cul*~Idea) has the highest degree of consistency, which is 0.940715. This shows that local residents have low level economic sharing, low level facility sharing, low

level idea sharing and low level environment sharing may result in low level tourism support. Combined with the analysis in Table 6, it is found that low level environmental sharing can occur in high level tourism support and low level tourism support.

Table 8 Pre-conditional configuration of high level railway support

Model B1: Rail-s = f (Eco, Plo, Inf, Env, Cul, Idea)	raw coverage	unique coverage	consistency
B1-1:~Eco*Inf*Env*~Cul	0.309287	0.00520259	0.962493
B1-2:Eco*Inf*~Env*Idea	0.361745	0.0528054	0.982109
B1-3:~Plo*Env*Cul*Idea	0.469609	0.0233246	0.954193
B1-4:Eco*Inf*Env*Cul	0.586058	0.0858408	0.968477
B1-5:~Eco*~Plo*~Inf*~Cul*~Idea	0.223186	0.00693667	0.843658
B1-6:~Eco*Plo*~Inf*~Env*~Idea	0.194659	0.00702339	0.836439
B1-7:~Eco*~Inf*~Env*Cul*Idea	0.213908	0.00702339	0.958058
B1-8:~Eco*Plo*Inf*Env*~Idea	0.204023	0.000520289	0.9608
B1-9:~Eco*Plo*~Env*Cul*Idea	0.192751	0.00676334	0.965682
B1-10:Plo*Inf*Env*~Cul*Idea	0.228041	0.00329494	0.963723
solution coverage: 0.767104			
solution consistency: 0.87051			

Table 9 Pre-conditional configuration of low railway support

Model B2: ~Rail-s = f(Eco, Plo, Inf, Env, Cul, Idea)	raw coverage	unique coverage	consistency
B2-1:~Eco*~Inf*~Env*~Cul*~Idea	0.51195	0.0145047	0.902645
B2-2:~Eco*Plo*~Inf*~Env*~Idea	0.39756	0.00494486	0.898659
B2-3:~Eco*~Plo*Env*~Cul*~Idea	0.462172	0.0220867	0.856706
B2-4:~Eco*~Inf*~Env*Cul*Idea	0.357178	0.0163178	0.841554
B2-5:~Eco*Plo*Inf*Env*~Idea	0.338553	0.0148345	0.83871
B2-6:~Plo*~Inf*Env*Cul*Idea	0.393275	0.0629635	0.802556
solution coverage: 0.696884			
solution consistency: 0.786458			

From Table 8 and Table 9, that the consistency of each antecedent conditional configuration is higher than 0.8, and the overall consistency is 0.87051 and 0.786458, respectively. Both is around the threshold value 0.8. The overall coverage reached 0.767104 and 0.696884, indicating that the model explained better. The study found that there are 10 types of antecedent conditional configurations that can lead to high level rail transit support for. The combination B1-2 (Eco*Inf*~Env*Idea) has the highest degree of consistency, which is 0.982109, indicating that the local residents with high level economic sharing, high level facility sharing, high level idea sharing and low level environmental sharing may generate high level railway support. There are 6 types of antecedent conditional configurations that lead to low level railway support. The combination B2-1 (~Eco*~Inf*~Env*~Cul*~Idea) has the highest degree of consistency, which is 0.902645, indicating that local residents with low level economic sharing, low level facility sharing, low level idea sharing, low level cultural sharing and low level environmental sharing may result in low level railway support. Combined with the analysis in Table 8, it is found that low level environmental sharing can occur in high level rail transit support and low level rail traffic support.

4.5. Predictive Validity

The robustness testing of the research was performed by predictive validity. To check the predictive validity, the 150 samples of one subsample was extracted. If the same pre-conditional configuration can be calculated, it can reveal the model has a good predictive validity based on different data set. Taking the model A1 with “high level tourism support” as an example, in order to distinguish the total sample and subsample, the model A2 was named as model S in subsample.

Table 10 showed the pre-conditional configuration of model S is "~Eco*Plo*~Inf*~Env*~Cul*~Idea", similar to the A2-1 (~Eco*~Inf*~Env*~Cul*~Idea) in total sample. Using the subsample present the XY plot, the result showed the relationship between condition X (~Eco*~Inf*~Env*~Cul*~Idea) and outcome Y (low level tourism support) is asymmetric (figure 1), these results verified the model has a good predictive validity.

Table 10 Pre-conditional configuration of low tourism support

Model S: ~Tou-s = f(Eco, Plo, Inf, Env, Cul, Idea)	raw coverage	unique coverage	consistency
S:~Eco*Plo*~Inf*~Env*~Cul*~Idea	0.339893	0.339893	0.937209
solution coverage: 0.339893			
solution consistency: 0.937209			

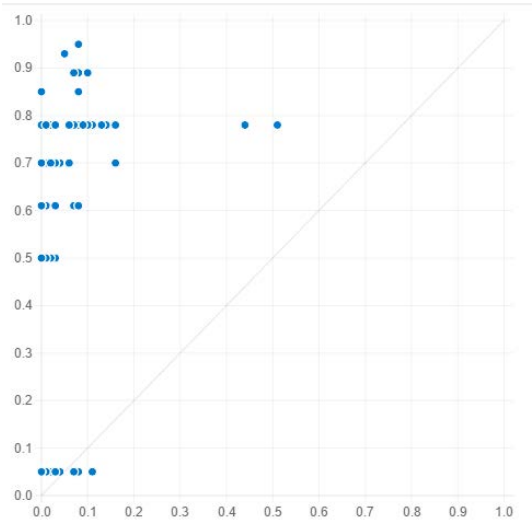

Figure 1 XY plot-A2-1 (~Eco*~Inf*~Env*~Cul*~Idea)

5. Discussion and Conclusion

In general, in terms of tourism support, high level economy sharing, high level facility sharing and high level idea sharing can encourage local residents to be more willing to support local tourism development, while low level economy sharing, low level facility sharing, low level cultural sharing and low level idea sharing would lead to local residents' low level support for tourism development. In terms of railway support, high level economy sharing, high level facility sharing and high level idea sharing can make local residents more willing to develop local rail transit, while low level economy sharing, low level facility sharing, low level culture sharing and low level idea sharing lead to the reducing the level of local residents' support for railway construction.

Low level environment sharing will lead to high level tourism support and low level tourism support, and low level environmental sharing will also lead the increasing and decreasing of rail transit support. This indicates that the residents are not optimistic about the impact of tourism development on the local ecological environment, but it cannot be an obstacle for local people to support tourism development and railway construction development.

This study provides important insights for tourism development, planning, and policy practice. Tourism destination management personnel should actively influence residents' perceptions to tourism impacts and encourage destination community residents to support further development. Tourism development plans should aim at meeting residents' expectations of destinations. This can be achieved by identifying negative and positive attributes in the local image. For example, in terms of community services, tourism destination managers should use tourism to improve the quality of community services in the city and provide local residents with more facilities and services. In order to maintain and enhance the support of the destination residents for a long time, local authorities can also carry out continuous internal marketing to highlight the positive aspects of the city's image

and the potential contribution of tourism development to this image. In addition, although tourism developers mainly emphasize the economy, the addition of various influencing factors of economy, politics, facilities, environment, culture and philosophy emphasizes the importance of the wider influence of tourism. Furthermore, tourism destination managers should balance the relationship among local residents at different stages of development, and balance the relationship between priorities and other issues that should be noted in the development of tourism destination communities. For example, for the current development stage of Dujiangyan-Siguniang Mountain, destination managers should emphasize impact of tourism on economic, facilities and cultural concepts to gain greater support from local residents. In addition, as the conditions of the destination may change over time, the residents' perception to the tourism industry impact will also have corresponding changes, tourism destination managers should continue monitor and manage.

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