

Study on the Influence of Perceived Fairness on the Environmentally Responsible Behavior of Residents in Rural Tourism Places - Mediated by Residents' Happiness

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Abstract

Based on the equity theory, this article constructs an integrated model of environmental responsibility behavior formation mechanism of tourism residents with perceived fairness (procedural fairness, distributive fairness and interactive fairness) as the antecedent variables and happiness of rural tourism residents as the mediating variable. The integrated model was empirically tested by obtaining 453 valid data from a survey of residents in Hongcun tourist area of Huangshan City, and it was found that: (1) perceived fairness is an important antecedent variable of residents' happiness in tourist areas; (2) perceived fairness influences residents' environmental responsibility behavior through residents' happiness; (3) environmental concern has no moderating effect in the influence of residents' happiness on environmental responsibility behavior. The model has good predictive ability, thus confirming the rationality and feasibility of the integrated model based on equity theory in predicting residents' environmentally responsible behaviors in tourist places. The study establishes a new theoretical framework for the formation of environmentally responsible behavior of community residents, which provides a new perspective for sustainable development of tourism sites.

Keywords

Residents of Tourist Sites; Perceived Equity; Resident Well-Being; Environmentally Responsible Behavior.

1. Introduction

1.1. Background of the selected topic

The report of the 20th Party Congress points out that we should comprehensively promote the revitalization of the countryside, accelerate the construction of a strong agricultural country, and solidly promote the revitalization of rural industries, talents, culture, ecology and organization. Rural tourism, as a form of rural industry that integrates local culture, natural landscape and leisure experience, is favored by tourists from various cities and has become an important driving force for the rural revitalization strategy. In recent years, rural tourism industry has been developing vigorously and has made great contributions to solving the "three rural issues".

However, a large amount of tourism rural tourism development will have a great impact on rural ecological environment, and large-scale tourism activities will also inevitably cause the depletion and destruction of rural tourism resources. Therefore, how to minimize the environmental problems in rural tourism in the context of rural revitalization strategy has been the focus of academic attention in recent years. The environmental responsibility behavior of tourism stakeholders, especially tourists, has been studied in depth by many scholars and has produced a large number of research results. In contrast, research on the environmentally responsible behavior of tourism destination residents is more fragmented, and fewer research

results have been related to it. As residents of tourist destinations, they spend more time and have a closer relationship with the destinations, and the ecological environment of the destinations has a more direct impact on them. Therefore, the study of residents' environmentally responsible behavior has far-reaching implications for promoting the sustainable development of rural tourism.

Many early studies of environmentally responsible behavior, many scholars studied the effect of local attachment on environmentally responsible behavior, and others introduced cognitive coherence theory, which argues that people's level of concern for the environment has an effect on their environmental behavior.

This paper constructs the relationship between perceived equity, happiness and environmentally responsible behavior of rural tourism destination residents, explores the mechanism of perceived equity of rural tourism destination residents on their environmentally responsible behavior, and provides effective suggestions for achieving sustainable development of rural tourism.

2. Literature review

2.1. Equity theory

Equity theory was proposed by Adams in 1965. It is believed that the perception of fairness affects people's motivation and influences their attitudes and behaviors, that is, when a person perceives fairness, he or she will have positive attitudes and behaviors; on the contrary, when a person perceives unfairness, he or she will have negative attitudes and behaviors. After the theory of equity was proposed, it has been confirmed and applied in many disciplines and fields, including organizational behavior, service marketing, etc., and has given rise to theories of equity in specific contexts, such as organizational equity theory and service equity theory. Organizational equity refers to an individual's or group's perception of being treated fairly in an organization. In most organizational behavior literature, organizational equity includes three dimensions: procedural equity, distributive equity, and interactional equity.

Procedural fairness refers to employees' perceptions of the fairness of management policies and procedures that lead to decision outcomes, as well as employees' perceptions of the motivations, methods, mechanisms, and processes used to determine outcomes, or the fairness and equity of participation in the decision making process. Procedural fairness focuses on the process, i.e., the steps taken to achieve a fair decision. Fair opportunities in the hiring process and fair rules of behavior are important influences on employees' perceptions of procedural fairness. Distributive fairness is about the degree of fairness in the allocation of resources by the organization. Thus, distributive justice is related to the allocation of resources, whether financial or non-financial. Resource allocation can be tangible, such as salary, or intangible, such as praise. At the same time, distributive justice can also be manifested in other ways, such as promotions, citizens' evaluation of particular decisions reached by government representatives, court judges, and police officers, etc. Interaction equity is often defined as the treatment that employees receive as a result of management decisions. In particular, interaction equity is the interpersonal interaction between employees and their organizations. Communication between managers and employees, consideration of employees' needs, listening to employees' needs, and showing empathy and understanding to employees are important means of demonstrating interaction equity.

2.2. Happiness

Xing believes that happiness is a feeling and experience of people's own situation and development, which is closely related to the objective conditions of people's lives, as well as their needs and values. [10]. There are two different conceptual paradigms about happiness,

one is subjective well-being, which considers happiness as people's evaluation and experience of their lives, and the other is psychological well-being, which considers happiness as the sense of value people gain by discovering their own potential. In this paper, we will focus on subjective happiness to explore. Xiao Yang believes that happiness is the subjective feeling of tending to happiness and avoiding suffering, so it is called subjective happiness [11]. Luigino Bruni and Pier Luigi Portal consider subjective well-being as a state of happiness, which is the product of a prolonged combination of affective and cognitive factors and includes four components: pleasurable emotions, unpleasant emotions, overall evaluation of life, and domain-specific satisfaction [12]. In this paper, we consider subjective well-being as a holistic assessment of the quality of people's lives according to intrinsic criteria, a comprehensive evaluation of life satisfaction and its various aspects, and the resulting psychological state of positive affective advantage.

2.3. Environmental responsibility behavior

Environmentally responsible behavior refers to human activities that people perform or shape with the purpose of protecting the environment or organizing environmental degradation to avoid damage to the ecological environment. Due to different application scenarios, "environmental responsibility" is also often derived from the concepts of environmentally responsible behavior, responsible environmental behavior, pro-environmental behavior, etc. [13]. Since the middle and late 20th century, with the increasing prominence of global warming and environmental pollution, and the deepening of the concept of sustainable development, environmental responsibility has gradually become an important issue in social development and academic research. Scholars have conducted in-depth studies on environmental responsibility and national environmental policies, business management performance, stakeholder perception and participation, and sustainable social development [13].

With the increasing concern for sustainable development, scholars have been studying more and more environmentally responsible behaviors. Qiu Hongliang et al. proposed that environmentally responsible behavior of tourists is a multidimensional concept consisting of compliance-based environmental behavior, consumption-based environmental behavior, conservation-based environmental behavior and promotion-based environmental behavior [14]. Jia Yanju and Lin Derong, on the other hand, constructed a research model of personal characteristics of tourists, local characteristics of tourist places, local attachment and environmentally responsible behavior of tourists based on place theory, and the results proved that there are direct and indirect effects of local attachment on environmentally responsible behavior of tourists [15]. Qi Xiaoxiao et al. confirmed that the two dimensions of place attachment play a partially mediating role in the influence of awe on environmentally responsible behavior [16]. In terms of residents' environmentally responsible behavior, He Xuehuan et al. confirmed that perceived fairness can be an influencing factor on residents' environmentally responsible behavior, with relationship quality playing a mediating role [17]. This paper seeks to add to the research by exploring the relationship between social trust, residents' well-being, and environmentally responsible behavior from the residents' perspective.

3. Research hypothesis

Community residents, as core stakeholders in the development of tourism, will feel respected when they are treated fairly in the process of tourism development, and will feel proud to be an important part of the development of tourism, and to contribute to the development of tourism, and this sense of respect and pride will help to enhance the well-being of its residents. On the contrary, if they are not treated fairly in the process of tourism development, they will feel that they are not cared for by the community and that they are not part of the community

organization, which will lead to negative attitudes and reduce the happiness of their residents. Based on the above discussion and the purpose of this paper, this paper intends to propose the following hypotheses:

H1: There is a positive relationship between social trust and subjective well-being of rural tourism place residents, the higher the social trust, the stronger people's subjective well-being, and the opposite, the weaker.

Positive environmentally responsible behavior of rural tourism destination residents is a support for tourism development, however, there are few studies on the relationship between the subjective well-being of destination residents and their environmentally responsible behavior. Residents' subjective well-being has rarely been mentioned in the theoretical framework of residents' environmentally responsible behavior. Fei-Fei Di found through model regression studies that the higher the happiness of residents, the more environmental behaviors they implement [18]. Nannan hyper et al. found that residents' subjective well-being significantly contributed to environmentally responsible behaviors [19]. Based on the above discussion, the hypothesis is proposed:

H2: There is a positive relationship between residents' subjective well-being and residents' environmentally responsible behaviors; the higher the happiness of residents, the more their environmental behaviors.

4. Study design and data collection

4.1. Questionnaire design and variable measurement

The questionnaire design consists of two main parts: the first part is the demographic characteristics of the sample, including age, gender, education level, and income level; the second part is the measurement questions of the variables related to the theoretical model, including perceived equity, resident happiness, and environmentally responsible behavior, all measured in the form of Likert scales.

According to the existing research literature, residents' perceived fairness was divided into three dimensions: procedural fairness, distributive fairness, and interactional fairness, and four questions were designed for each dimension. At the same time, these items were modified according to the specific context of this study to make the measurement items more suitable for this study. For example, the measure of procedural equity, "You are able to express your views and feelings when making policy decisions related to the tourism development process," the measure of distributive equity, "Your access reflects the effort you put into your work," and the measure of interaction equity, "You are able to express your views and feelings when making policy decisions related to the tourism development process. The question "When you are approached by tourism management, they treat you with courtesy, respect and dignity". Using the Likert 7 scale format, "1" means strongly disagree and "7" means strongly agree, with higher scores indicating a more equitable perception of tourism development.

Subjective well-being. The definition of subjective well-being in this paper mainly refers to Kan Jieqiong's statement that subjective well-being is a holistic assessment of people's quality of life based on internal criteria, which is a comprehensive evaluation of people's satisfaction with life and its various aspects, and results in a psychological state in which positive emotions prevail. According to this definition and Tobin's measure of subjective well-being, the questions in this paper include: SWB1- My life is generally in line with my ideals; SWB2- My life environment is good; SWB3- I am satisfied with my life; SWB4- So far, I have gotten what I want; SWB5- If I could live again, there is almost nothing I would like to change.

Environmentally responsible behavior. The measurement of environmentally responsible behavior is described in reference to Kerstetter and Li, Qiu-Cheng and Zhou, Ling-Qiang [21].I

will comply with the relevant regulations and not cause damage to the local environment; ERB2 - I will throw garbage or tree branches into the garbage can when I see them; ERB3 - I will report any environmental pollution or damage to the management office; ERB4 - I will participate in local environmental cleanup activities if I can; ERB5 - I will convince the surrounding people to protect the local natural environment.

4.2. Data collection

The survey was conducted in Hongcun, Huangshan City, and the respondents were the residents living in Hongcun. The survey started on March 18, 2022 and ended on November 26, 2022. 500 questionnaires were distributed and 466 were collected, with a recovery rate of 93.20%, excluding invalid questionnaires due to incomplete information. 453 questionnaires were valid, with a validity rate of 97.21%.

4.3. Sample demographic characteristics

The demographic characteristics of the sample were relatively dispersed in terms of age, with more aged 25-60; in terms of gender, the ratio of male to female was balanced; the education level was mainly high school/college, accounting for more than 50%; the per capita monthly household income was mainly concentrated in the range of 2000-3999 RMB, accounting for 52.4%; and the duration of residence was most often between 10-14 years, followed by less than 5 years. In general, the demographic characteristics of the sample are representative and can meet the requirements of the empirical part of this study.

5. Empirical analysis and results

5.1. Exploratory factor analysis of perceived fairness

An exploratory factor analysis was conducted using SPSS 21.0 to determine whether the perceived equity of the residents of the tourism area consisted of three dimensions: procedural equity, distributive equity, and interaction equity. The results of the exploratory factor analysis showed that the KMO value was 0.904, which was much larger than 0.700, and the Sig. value of Bartlett's sphericity test was less than 0.001, indicating that the data were suitable for factor analysis. The maximum orthogonal rotation method was adopted to rotate the data, and the number of common factors was determined by the principal component method to extract the common factors and the criteria of eigenvalues greater than 1. The cumulative variance contribution rate reached 76.244%, and the cumulative equation contribution rate exceeded 70%, indicating the strong explanatory power of the three common factors.

The factor loadings of the rotated items were examined, and the factor loadings of the items were censored using the criterion of whether the factor loadings of the items were greater than 0.500. The results showed that the minimum factor loadings of all items were 0.743, which were greater than 0.500, so there was no need to delete the items. Further investigation revealed that all the items of public factor 1 were procedural fairness items, all the items of public factor 2 were distributive fairness items, and all the items of public factor 3 were interactive fairness items. Thus, it is tentatively determined that the perception of fairness of tourism residents can be divided into three dimensions: procedural fairness, distributive fairness, and interactive fairness.

5.2. Structural model analysis

5.2.1. Fitting index

The fit indices of the structural model were: $\chi^2/df=2.256$, RMSEA=0.053, GFI=0.912, AGFI=0.889, NFI=0.936, RFI=0.926, IFI=0.963, TLI=0.957, CFI=0.963. Against the criteria proposed by Hu and Bentler, all the fit indices except AGFI met the corresponding criteria, thus

indicating that the data fit the model acceptably. All the fit indices met the corresponding criteria, thus indicating that the data fit the model well and it is an acceptable model.

5.2.2. Hypothesis testing results

The path coefficients of procedural fairness and interactional fairness on residents' well-being were 0.202 and 0.596, respectively, which were significant at the 0.001 level of significance, while the effect of distributive fairness on residents' well-being was not significant. The path coefficients of the three dimensions of perceived fairness (procedural fairness, distributive fairness, and interactional fairness) on community identity were 0.263, 0.369, and 0.118, respectively, which were significant at 0.001, 0.001, and 0.1 levels of significance, thus H1 was verified.

The path coefficients of the effect of residents' well-being on the environmentally responsible behavior of residents in tourist places are 0.330 and 0.346, respectively, which are significant at 0.001 significant level, thus confirming H2.

5.2.3. Model Predictive Capability

In general, the R² values of the explanatory variables are 0.01, 0.09 and 0.25, which represent the weak, weak and strong predictive power of the model, respectively. From Figure 2, the R² values of the three latent variables of community satisfaction, community identity and environmentally responsible behavior are 0.616, 0.405 and 0.330, respectively, which are all greater than 0.25. This indicates that the explanatory variables in the model have a strong explanatory power for the explanatory variables, which reflects that the variables in the theoretical model have a stable relationship and the model is more stable and has better predictive power, which further indicates that the theoretical This further indicates that the theoretical model is a very good model.

6. Research conclusion and discussion

6.1. Research findings

Based on the literature of equity theory, organizational behavior and marketing, this study introduces equity theory into the context of perceived equity of tourism development by tourism residents and classifies perceived equity into three dimensions: procedural equity, distributional equity and interaction equity. The exploratory and validation factor analysis found that the equity perceptions of tourism residents can be classified into three dimensions: procedural equity, distributional equity and interaction equity, which is consistent with the findings of previous studies in organizational behavior and marketing, thus verifying the applicability of equity theory in the context of tourism.

In terms of the effect of perceived fairness on residents' happiness, the results of the empirical analysis of this study showed that procedural fairness and interaction fairness had significant effects on residents' happiness, except for distributive fairness, which did not have a significant effect on community satisfaction, thus indicating that perceived fairness is an important driver of residents' happiness in the community.

6.2. Theoretical contributions

The theoretical contribution of this study is mainly reflected in three aspects: First, as the core stakeholders of tourism places, the residents of tourism communities have significant influence on the environment of tourism places, but most of the existing literature explores the environmental responsibility behavior of tourists and its formation mechanism, while few studies explore the environmental responsibility behavior of the residents of tourism places. This study explores the environmental responsibility behaviors and the formation mechanism of the environmental responsibility behaviors of community residents in tourist areas, which

is a breakthrough from the existing research horizon of environmental responsibility behaviors and provides a new approach and method for the sustainable development of tourist areas. Second, most of the existing studies on environmental responsible behavior are based on the theory of planned behavior, norm-activation theory, values-beliefs-norm theory, goal-oriented theory, and local attachment theory. This study takes into account the important influence of perceived equity on the behavior of residents in the development process of tourism places, and thus takes the perceived equity of community residents as an influencing factor of their environmental responsibility behavior based on equity theory, which breaks through the existing theoretical framework of environmental responsibility behavior research and provides a new theoretical perspective for environmental responsibility behavior research. Thirdly, considering the importance of the relationship between tourism places and community residents and the role of environmental concerns on environmentally responsible behavior, based on the relationship quality theory, this study uses community satisfaction and community identity as mediating variables and environmental concerns as moderating variables to explore the role of the relationship between tourism places and community residents in the relationship between community residents' perceived fairness and their environmentally responsible behavior, and reveals the mechanism of the formation of environmentally responsible behavior of tourism residents. The study reveals the formation mechanism of environmentally responsible behavior of residents in tourist areas, and provides a new theoretical explanation for the study of environmentally responsible behavior.

6.3. Management suggestions

In the process of tourism development, establishing a good relationship with community residents is an important means and way to achieve sustainable development of tourism sites. First of all, the community satisfaction of the residents should be improved as an important goal of tourism development. Tourism management should always pay attention to the changes of community satisfaction, find out the factors that affect the satisfaction of community residents, strengthen the factors that can improve the satisfaction of residents, and eliminate the factors that reduce the satisfaction of residents. In the process of tourism development, the development of community residents as an important part of the development of tourism, the protection and presentation of community customs, culture and typical symbols, fully respect and listen to the views and suggestions of community residents, consider their needs, let the community residents fully participate in the process of tourism development, so that the development of tourism and community residents to form a community of interest, community of cause and community of fate. To enhance their sense of ownership, and in turn enhance the sense of identity and belonging of the community residents, and ultimately motivate them to adopt environmentally responsible behavior and contribute to the sustainable development of the tourism site.

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