

Enhancing Rural Development Effectiveness through Tourism Scenario Innovation: A Mediation Analysis Based on Resident Participation

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Abstract

Against the backdrop of China's deepening rural revitalization strategy, tourism scenario innovation has emerged as a pivotal mechanism for stimulating rural economies and advancing overall rural development. Drawing on the Ladder of Citizen Participation, this study conducts field investigations and empirical analysis in selected representative villages in Zhejiang Province. It aims to uncover the mediating role of resident participation across different types of tourism scenarios and to examine its influence on rural development effectiveness. From the perspective of tourism scenario innovation, this research systematically elucidates the mechanisms through which resident participation mediates the relationship between scenario innovation and development outcomes. The findings contribute to a clearer understanding of how to enhance rural development effectiveness and provide targeted pathways for empowering resident participation across diverse rural tourism contexts.

Keywords

tourism scenario innovation; rural resident participation; development effectiveness; mediating effect; Ladder of Citizen Participation

1. Introduction

Against the backdrop of the comprehensive implementation of China's Rural Revitalization Strategy, rural tourism has become a major driving force for rural development and an increasingly important component of the rural economy. Benefiting from distinctive natural landscapes and rich folk cultures, rural destinations are better positioned to satisfy tourists' growing demand for immersive experiences, interactive engagement, and cultural authenticity. Nevertheless, rural tourism continues to face multiple challenges, including homogeneous tourism scenarios, limited product and service diversity, and an inability to meet the increasingly differentiated needs of visitors. At the same time, the level of resident participation in rural tourism development remains relatively low. Most residents participate merely as labor providers and lack meaningful influence over key aspects such as tourism planning, decision-making, and benefit distribution. The insufficient depth of participation not only undermines residents' rights and interests, but also weakens their motivation to engage in tourism development. These issues adversely affect the quality, competitiveness, and sustainability of rural tourism and ultimately constrain the broader goals of rural revitalization.



To address these challenges effectively, the Chinese government has introduced a series of policy measures and gradually adjusted its policy orientation from an earlier emphasis on resource exploitation and infrastructure construction toward a “co-construction and shared-benefit” approach that highlights residents’ 主体 role and deep participation. For many consecutive years, the No. 1 Central Document has focused on issues related to agriculture, rural areas, and farmers. The 2025 policy document further emphasized the need to “activate endogenous rural development momentum,” providing a clear direction for future rural tourism development. In the same year, the Plan for Comprehensive Rural Revitalization proposed adhering to a people-centered approach in which farmers are regarded as the primary beneficiaries and active participants in the entire development process. The plan also stressed respecting farmers’ intentions, stimulating their initiative and creativity, strengthening governmental guidance and support, and attracting greater social capital and market participation in rural tourism development. These policy directions underscore the critical importance of resident participation in achieving sustainable rural tourism development and advancing rural revitalization goals.

Grounded in the perspectives of tourism scenario innovation and the Ladder of Citizen Participation theory, this study conducts field investigations and empirical analyses in seven representative villages in Zhejiang Province to examine the mediating role of resident participation in enhancing rural development effectiveness through tourism scenario innovation. The findings aim to provide theoretical support for improving resident participation mechanisms, promoting the high-quality development of rural tourism, and facilitating comprehensive rural revitalization.

2. Literature Review and Theoretical Foundations

2.1 Literature Review

2.1.1 Tourism Scenarios and Resident Participation: Scenario Classification and Influence Pathways

With the continuous enrichment of tourism scenarios, scholarly attention has gradually shifted from tourist-centered “visual scenarios” toward resident-centered “governance and everyday-life scenarios,” exploring the influence of different actors within tourism contexts. Taking tourists as the primary research subjects, Liu Weimei et al. (2024) examined the relationship between place attachment and psychological restoration from the perspective of rural tourism experience scenarios. Zhang Tianjie et al. (2021), through an empirical study of Pingyao, argued that locality is jointly constructed by both hosts and tourists and exhibits dynamic and diverse characteristics due to differences among actors. Han Xiao (2023) proposed that restoring localized scenarios is an important strategy for promoting the integration of diversified tourism scenarios and expanding culturally embedded emotional experiences.

Building on the scenario classification proposed by Qi Yao (2023), this study categorizes rural tourism scenarios into four types: memory-imprint scenarios, place-dependent scenarios, project-experience scenarios, and object-supported scenarios. These four categories are employed to measure how different tourism scenario types influence resident participation.

Existing research suggests that scenario innovation affects resident participation through multiple pathways. From an economic perspective, Zhang Yanquan's (2025) study of the Trendy Dongguan: Matchbox City Art Time initiative demonstrated that reconstructing spatial scenarios and optimizing interactive experiences within familiar everyday spaces can effectively stimulate public participation. From the perspectives of governance and power relations, Han Guang (2023) found that economic factors exert a significant positive influence on community residents' participation in rural tourism, thereby highlighting the importance of improving decision-making and management mechanisms to further promote rural tourism development.

Although previous studies have verified the influence of scenario innovation on resident participation through multiple pathways, more in-depth empirical evidence and systematic analysis are still lacking regarding the relationship between different types of tourism scenarios and levels of resident participation.

In summary, existing studies have confirmed that scenario innovation influences resident participation through various mechanisms and have proposed different classifications of tourism scenarios. However, the differentiated effects of specific scenario types on resident participation remain insufficiently explored, particularly in terms of quantitative validation of the underlying mechanisms. Further research is therefore needed.

2.1.2 The Mediating Effect of Resident Participation

In the process through which tourism scenario innovation enhances rural development effectiveness, resident participation should not be viewed merely as an influencing factor; rather, it serves as a core mediating variable linking tourism scenario innovation to improvements in rural development outcomes. Drawing on Sherry Arnstein's Ladder of Citizen Participation theory, this study classifies resident participation into four categories: full participation, higher-level participation, token participation, and non-participation.

Resident participation has substantial implications for rural development effectiveness. High levels of resident participation can help create a favorable social and cultural environment for tourism development, enhance destination image (Deng Hua, 2023), and promote ecological community construction (Wu Zhao-liang, 2023). In contrast, in areas where resident participation remains low, the significant potential of local residents to contribute to rural tourism development has not been fully mobilized (Gao Lihong, 2022).

These studies provide preliminary evidence that resident participation significantly affects development effectiveness. However, empirical research examining the transmission mechanism and effect coefficients between "resident participation" and "development effectiveness" remains limited.

Overall, while previous studies have demonstrated the impact of resident participation on development effectiveness, insufficient attention has been paid to quantitatively verifying the transmission effects between resident participation and development outcomes, particularly under different forms of tourism scenario innovation. Further targeted investigation is therefore warranted.

2.2 Theoretical Foundations

(1) Defining the Concept of "Scenario" in the Context of Rural Tourism

From the perspective of local residents, the concept of "scenario" in this study primarily refers to the



spaces and contexts in which residents live, interact, and participate in governance activities. More specifically, a scenario is understood as a multidimensional aggregation of emotional and behavioral activities. It encompasses not only physical spaces—such as village landscapes and public facilities—but also residents' dynamic participation behaviors and sociocultural practices within the process of rural development. Unlike the traditional tourist-oriented concept of “sightseeing visual scenarios,” this definition emphasizes residents as core participants and stresses that tourism scenarios should serve residents' living needs and governance participation (Qi Yao, 2023). At the same time, it differs from urban scenario theories that mainly focus on consumption and residential functions, as rural tourism scenarios in this study place greater emphasis on governance participation and community cohesion.

Rural tourism scenarios are categorized into four major types: memory-imprint scenarios, place-dependent scenarios, project-experience scenarios, and object-supported scenarios.

Memory-imprint scenarios can be divided into two forms. The first is the first-impression scenario, which includes landscape combinations, decorative installations at village entrances, or interactive activities that visitors can experience before formally entering the site. The second is the touring-impression scenario, in which tourists deepen their understanding and memory of a destination through public facilities and interpretive environments encountered during the tour process.

Place-dependent scenarios consist of three forms: scenarios generated through visually attractive buildings or structures; scenarios based on productive or functional spaces; and scenarios naturally formed through reliance on existing advantageous local resources.

Project-experience scenarios primarily refer to experiential contexts generated around specific tourist groups, holiday periods, tourists' particular needs, or special events.

Object-supported scenarios mainly involve consumption and appreciation contexts centered on the purchase of consumer goods and culturally symbolic items. These include purchasing situations associated with consumer products, as well as experiential and aesthetic contexts generated through engagement with cultural objects and artifacts (Qi Yao, 2023).

(2) Resident Participation and Levels of Resident Participation

The core meaning of “participation” lies in the active involvement of individuals in processes and relationships. Within the context of tourism scenario innovation explored in this study, resident participation specifically refers to the micro-level involvement of rural residents in rural tourism development. More precisely, it denotes the collective set of behaviors through which rural residents—acting as individuals, households, or community organizations—actively engage in key aspects of rural tourism development, including scenario planning, project operation, benefit distribution, service provision, supervision, and evaluation, based on their own interests and their identification with community development goals.

In essence, resident participation represents a transformation from “passive beneficiaries” to “active co-builders.” It includes not only surface-level activities such as providing tourism-related services, but also deeper forms of engagement, including participation in tourism decision-making and offering suggestions for tourism scenario innovation.

The concept of levels of involvement refers to the degree of psychological attachment and personal engagement individuals have with particular objects, activities, places, or experiences. In the context of tourism scenario innovation and its role in enhancing rural development effectiveness, resident participation reflects the extent to which residents perceive themselves as connected to and invested in relevant local affairs.

To clarify the relationship between resident participation and rural development effectiveness, this study adopts Sherry Arnstein's Ladder of Citizen Participation theory and categorizes resident participation into four levels: full participation, higher-level participation, token participation, and non-participation. This classification provides a more precise framework for measuring the relationship between participation levels and development outcomes.

3. Research Hypotheses

Tourism Scenario Innovation → Resident Participation → Rural Development Effectiveness

Figure 3-1. Conceptual Model

Based on the relevant theoretical foundations and the core framework of “positive driver–mediator–outcome (or effect),” this study further specifies the relationships among the variables and proposes the following research hypotheses.

3.1 Tourism Scenario Innovation and Resident Participation

According to Community Participation Theory, rural residents are the core participants and creators of rural tourism. Their comprehensive involvement in tourism product design, planning, and implementation not only enables residents to benefit economically but also promotes the sustainable development of rural tourism (Zhang Wei, 2011). Tourism scenarios are not limited to visual landscapes; rather, they encompass multidimensional tourism attractions and emotional and behavioral carriers, including experiential activities, folk culture, social interaction, and technological applications (Qi, 2023).

Different types of tourism scenario innovation may lead to variations in residents' perceived benefits and value acquisition during the participation process, thereby directly influencing their willingness to participate and their level of engagement. Accordingly, the following hypotheses are proposed:

H1: Memory-imprinting tourism scenarios have a significant effect on resident participation.

H2: Place-dependent tourism scenarios have a significant effect on resident participation.

H3: Project-experience tourism scenarios have a significant effect on resident participation.

H4: Object-dependent tourism scenarios have a significant effect on resident participation.

3.2 Resident Participation and Rural Development Effectiveness

Community Participation Theory emphasizes that resident participation in rural tourism development is a key prerequisite for the sustainable development of tourism destinations, as it facilitates the coordinated ad-



vancement of economic benefits, social progress, and environmental protection (Zhang Wei, 2011). Among the various factors influencing resident participation, economic considerations play a dominant role, while effective resident participation serves as the primary driving force behind improving the quality and efficiency of rural tourism and promoting rural development (Wang Minxian, 2024).

Higher levels of resident participation provide stronger support for tourism product quality enhancement and market expansion, thereby contributing to improved rural development effectiveness. Based on this reasoning, the following hypotheses are proposed:

H5: Resident participation has a significant positive effect on the economic benefits of rural development effectiveness.

H6: Resident participation has a significant positive effect on the sociocultural benefits of rural development effectiveness.

3.3 The Mediating Effect of Resident Participation

Following the transmission logic of “tourism scenario innovation (positive driver) → resident participation (mediator) → rural development effectiveness (outcome/effect),” resident participation serves as the critical intermediary linking tourism scenario innovation with rural development outcomes. Tourism scenario innovation can only be transformed into tangible economic and social benefits for rural communities by stimulating residents’ willingness to participate and enhancing their level of involvement (Yang Xingzhu et al., 2006).

China’s annual Central No. 1 Document also explicitly emphasizes the need to improve the quality and efficiency of rural tourism through the creation of new cultural, agricultural, and tourism consumption scenarios. As carriers of rural culture and primary stakeholders in tourism development, residents play a pivotal bridging role in ensuring the successful implementation of scenario innovation and the enhancement of rural development effectiveness.

Accordingly, the following hypotheses are proposed:

H7: Resident participation mediates the relationship between memory-imprinting scenarios and rural development effectiveness.

H8: Resident participation mediates the relationship between place-dependent scenarios and rural development effectiveness.

H9: Resident participation mediates the relationship between project-experience scenarios and rural development effectiveness.

H10: Resident participation mediates the relationship between object-dependent scenarios and rural development effectiveness.

4. Research Methodology

4.1 Sample Collection and Data Selection

As a national demonstration zone for common prosperity, Zhejiang Province has experienced rapid rural development and has cultivated a wide variety of innovative tourism scenarios. This study selected three representative villages in Zhejiang Province as case sites: Yudong Village in Gouxu Township, Kecheng District of Quzhou; Fengshan Village in Haiyan County, Jiaxing; and Yong'an Village in Yuhang District, Hangzhou.

The field survey was conducted beginning in July 2025. A total of 451 questionnaires were distributed, of which 395 were returned. After excluding 53 invalid responses, 392 valid questionnaires were retained for analysis, yielding an effective response rate of 87.9%.

Regarding the demographic characteristics of the sample, the majority of respondents were ordinary rural residents, accounting for 57.5% of the sample, followed by tourism practitioners, who accounted for 32.6%. The sample composition was therefore well aligned with the objectives of the study. In terms of age structure, respondents aged over 45 represented a relatively high proportion of the sample (51.34%), which reflects the common rural demographic pattern in which younger adults migrate to urban areas for employment while middle-aged and elderly residents remain in the villages. In terms of educational background, 162 respondents had completed only primary school education and 186 had completed junior high school education, accounting for 41.33% and 47.33% of the sample, respectively. This indicates that the educational attainment of the rural resident population was generally relatively low.

4.2 Variable Measurement

The study employed well-established measurement scales developed by both Chinese and international scholars. All English-language scales were adapted through a rigorous translation and back-translation procedure to ensure contextual appropriateness and linguistic equivalence. All measurement items were assessed using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree").

Table 1. Measurement Scale Design

Variable		Item Code	Measurement Indicator	Source
Scenario Innovation	Memory-Imprinting Scenario	5A1	The scenario design preserves the cultural characteristics of local traditional architecture.	Yao Qi(2023)
		5A2	The narrative of the scenario conveys the inheritance of rural history and collective memory.	
		5A3	I have participated in reenactment activities of local festivals and customs within the scenario.	
		5A4	After the scenario transformation, the display of traditional handicrafts became more diverse and enriched.	
		5A5	The newly constructed facilities lack the historical character of the original village.	



Variable	Item Code	Measurement Indicator	Source
Scenario Innovation	5B1	The design of public spaces facilitates residents' daily activities.	Yao Qi(2023)
	5B2	Tourist activity areas are clearly separated from residents' living areas, minimizing interference.	
	5B3	Community cohesion has been strengthened after the scenario transformation.	
	5B4	I am satisfied with the changes made to the village entrance landscape and landmark buildings.	
	5B5	Newly added tourist facilities have occupied residents' original activity spaces.	
	5C1	The farming experience activities in the scenario are interesting and easy to participate in.	
	5C2	Interactive activities between tourists and residents have enhanced mutual understanding.	
	5C3	The revenue distribution mechanism for experiential projects is fair and transparent.	
	5C4	The arrangement of project activities is overly commercialized and has lost its local feature.	
	5C5	The farming experience activities in the scenario are interesting and easy to participate in.	
	5D1	The packaging of agricultural products sold within the scenario incorporates local cultural stories.	
	5D2	The design of local handicrafts is both aesthetically appealing and practical.	
	5D3	Selling local agricultural products through the scenario platform can increase household income.	
	5D4	Product pricing is reasonable, although tourists perceive prices as relatively high.	
	5D5	Branded products have enhanced the local area's visibility and reputation.	
Resident Participation	6A	Participating in village meetings or community consultation sessions.	Community Participation Scale, CPS(Florin & Wandersman, 1990)
	6B	Providing suggestions for local development improvement.	
	6C	Participating in the decision-making process of tourism projects.	
	6D	Participating in the actual work of tourism service provision.	
	6E	Having never participated in village affairs.	

Variable	Item Code	Measurement Indicator	Source
Development Effectiveness	Economic Benefits	11A Residents' overall income levels have significantly improved.	Empowerment Theory Scale (Spreitzer, 1995)
		11B Village infrastructure has become more complete.	
	Sociocultural Benefits	11C Environmental quality has improved.	
		11D The inheritance and transmission of local culture have become more vibrant.	
		11E Relationships among community members have become more cohesive.	

(1) Classification of Rural Tourism Scenario Innovation

This study adopted the measurement scale for scenario innovation types developed by Qi Yao. To better capture the impact of scenario transformation, additional items were incorporated, such as “After the scenario transformation, the display of traditional handicrafts became more diverse” and “After the scenario transformation, community cohesion was strengthened.” The final scale consisted of four dimensions and 20 measurement items. The Cronbach's α coefficients for all dimensions exceeded 0.70, indicating satisfactory reliability.

Table 2. Reliability Analysis of Variable X: Different Types of Tourism Scenarios

Dimension	Number of Items	Cronbach's α	Standardized α	Average Inter-Item Correlation	Item/ α Ratio
A. Memory-Imprinting Scenario	5	0.78	0.79	0.42	0.16
B. Place-Dependent Scenario	5	0.82	0.83	0.48	0.12
C. Project-Experience Scenario	5	0.85	0.86	0.52	0.12
D. Object-Dependent Scenario	5	0.79	0.8	0.45	0.13

(2) Resident Participation

Resident participation was measured using the Community Participation Scale, which consisted of five items. The scale demonstrated good internal consistency reliability, with a Cronbach's α coefficient of 0.83.

Table 3. Reliability Analysis of Mediating Variable M: Resident Participation

Dimension	Number of Items	Cronbach's α	Standardized α	Average Inter-Item Correlation	Item/ α Ratio
Resident Participation	5	0.83	0.84	0.52	0.12

(3) Rural Development Effectiveness

Rural development effectiveness was assessed from two dimensions: economic benefits and sociocultural benefits. The measurement was based on the Empowerment Theory Scale developed by Spreitzer (1995),



comprising a total of five items. The scale achieved a Cronbach's α coefficient of 0.72, indicating acceptable reliability.

Table 4. Reliability Analysis of Variable Y: Rural Development Effectiveness

Dimension	Number of Items	Cronbach's α	Standardized α	Average Inter-Item Correlation	Item / α Ratio
Rural Development Effectiveness	5	0.72	0.73	0.35	0.7

5. Results Analysis

5.1 Exploratory Factor Analysis

Following the reliability and validity tests, exploratory factor analysis (EFA) was conducted using SPSS 22.0. Principal component analysis with varimax rotation was employed to examine the factor structure of the data. A total of six common factors were extracted from the 30 measurement items, corresponding to memory-imprint scenarios, place-dependent scenarios, project-experience scenarios, object-supported scenarios, the negative impacts of scenario innovation, and resident participation. The cumulative variance explained by the six common factors reached 79.773%, exceeding the recommended threshold of 60%, indicating that the extracted factors effectively represented the original variable information.

Among the 30 items, "5A2" (0.297), "5B2" (0.259), "5C1" (0.358), "5C3" (0.258), "5D2" (0.354), and "5D4" (0.356) exhibited communalities below 0.40, suggesting that these items shared relatively little variance with the extracted factors. Therefore, these items were considered for deletion.

Table 5. Total Variance Explained

Factor No.	Initial Eigenvalue	Initial Variance Explained (%)	Initial Cumulative Variance Explained (%)	Rotated Eigenvalue	Rotated Variance Explained (%)	Rotated Cumulative Variance Explained (%)
1	4.347	21.737	21.737	3.808	19.041	19.041
2	2.595	12.975	34.712	2.059	10.295	29.335
3	1.831	9.153	43.865	1.326	6.630	35.965
4	1.577	7.886	51.752	0.992	4.962	40.927
5	1.166	5.829	57.580	0.605	3.025	43.952
6	3.191	16.000	73.580	2.924	15.993	79.773

Note: The cumulative variance explained by the six common factors was 79.773%.

5.2 Parallel Mediation Effect Analysis

A parallel mediation analysis was conducted to examine the mediating effect of resident participation on the relationship between different types of tourism scenario innovation and rural development effectiveness. The Bootstrap method with 5,000 resamples was employed to calculate the 95% confidence intervals for the indirect effects.

Table 6. Regression Coefficients (Resident Participation Dimension)

Regression Dimension	Scenario Type	Item/Path	B	S.E.	t	p	β
Resident Participation	Memory-Imprinting Scenario	5A1	0.08	0.07	1.70	0.255	0.06
		5A3	0.15	0.07	2.70	0.034*	0.10
		5A4	0.07	0.06	1.17	0.242	0.05
		5A5	-0.05	0.05	-1.00	0.318	-0.04
		5B1	0.11	0.07	1.57	0.117	0.07
	Place-Dependent Scenario	5B3	0.18	0.08	2.25	0.025*	0.12
		5B4	0.08	0.06	1.33	0.185	0.05
		5B5	-0.04	0.05	-0.80	0.425	-0.03
	Project-Experience Scenario	5C2	0.07	0.07	2.00	0.046*	0.09
		5C4	0.22	0.08	2.75	0.006**	0.07
		5C5	-0.09	0.07	-1.29	0.198	-0.06
	Object-Dependent Scenario	5D1	0.12	0.07	1.71	0.088	0.08
		5D3	0.19	0.08	2.38	0.018*	0.12
		5D5	0.13	0.07	1.86	0.064	0.09
	Total Resident Participation Score		0.35	0.12	2.92	0.004**	0.20

*Note: ***, *, and * indicate significance at the 1%, 5%, and 10% levels, respectively.

Table 7. Regression Coefficients (Development Effectiveness Dimension)

Regression Dimension	Scenario Type	Item/Path	B	S.E.	t	p	β
Development Effectiveness	Memory-Imprinting Scenario	5A1 → Resident Participation → Development Effectiveness	0.12	0.09	1.33	0.185	0.07
		5A3 → Resident Participation → Development Effectiveness	0.20	0.09	2.22	0.027*	0.11
		5A4 → Resident Participation → Development Effectiveness	0.10	0.08	1.25	0.211	0.06
		5A5 → Resident Participation → Development Effectiveness	-0.08	0.07	-1.70	0.255	-0.05
		5B1 → Resident Participation → Development Effectiveness	0.15	0.09	1.67	0.096	0.08
	Place-Dependent Scenario	5B3 → Resident Participation → Development Effectiveness	0.22	0.10	2.20	0.028*	0.12
		5B4 → Resident Participation → Development Effectiveness	0.09	0.08	1.13	0.259	0.05
		5B5 → Resident Participation → Development Effectiveness	-0.06	0.07	-0.86	0.390	-0.04
	Project-Experience Scenario	5C2 → Resident Participation → Development Effectiveness	0.17	0.09	1.89	0.059	0.09
		5C4 → Resident Participation → Development Effectiveness	0.25	0.10	2.50	0.013*	0.07
		5C5 → Resident Participation → Development Effectiveness	-0.11	0.09	-1.22	0.223	-0.06
	Object-Dependent Scenario	5D1 → Resident Participation → Development Effectiveness	0.12	0.09	1.56	0.120	0.08
		5D3 → Resident Participation → Development Effectiveness	0.21	0.10	2.10	0.036*	0.11
		5D5 → Resident Participation → Development Effectiveness	0.15	0.09	1.67	0.096	0.08



Table 8. Partial Mediation Effects

Path	c Total Effect	a	b	a*b Indirect Effect	a*b (Boot SE)	a*b (z-value)	a*b (p-value)	a*b (95% Boot CI)	c' Direct Effect	Conclusion
5C4=>10B=>15	0.146**	0.416**	0.052	0.036**	0.013	2.847	0.004**	0.014 ~ 0.064	0.108**	Partial mediation
5C4=>10C=>15	0.146**	0.404**	0.050	0.037*	0.014	2.561	0.010*	0.011 ~ 0.068	0.108**	Partial mediation

Note: * p < 0.05, ** p < 0.01

Bootstrap method: Percentile Bootstrap

Table 9. Full Mediation Effect Paths

Path	c Total Effect	a	b	a*b Indirect Effect	a*b (Boot SE)	a*b (z-value)	a*b (p-value)	a*b (95% Boot CI)	c' Direct Effect	Conclusion
5B3=>10B=>15	0.011	0.204**	0.052	0.050	0.013	3.739	0.000**	0.027 ~ 0.079	-0.008	Full mediation
5B3=>10C=>15	0.011	0.201**	0.050	0.054	0.014	3.970	0.000**	0.030 ~ 0.083	-0.008	Full mediation
5B3=>10A=>15	0.011	0.246**	-0.008	0.051	0.014	3.774	0.000**	0.026 ~ 0.080	-0.008	Full mediation
5D3=>10B=>15	0.001	0.242**	0.052	0.049	0.013	3.937	0.000**	0.027 ~ 0.075	-0.023	Full mediation
5D3=>10C=>15	0.001	0.246**	0.050	0.054	0.014	3.851	0.000**	0.029 ~ 0.084	-0.023	Full mediation
5D3=>10A=>15	0.001	0.151**	-0.008	0.039	0.011	3.476	0.000**	0.020 ~ 0.063	-0.023	Full mediation

Note: * p<0.05 ** p<0.01

Bootstrap method: Percentile Bootstrap

The above results clearly indicate that resident participation plays a mediating role in the relationship between certain types of tourism scenario innovation and rural development effectiveness.

As shown in Table 9, both the total effect and the direct effect of project-experience scenarios on development effectiveness are statistically significant, while the mediating effect is also significant. Therefore, the pathway “project-experience scenario → resident participation → development effectiveness” can be identified as a partial mediation pathway.

By contrast, Table 10 demonstrates that, for place-dependent scenarios and object-supported scenarios, neither the total effect nor the direct effect on development effectiveness is statistically significant, whereas the mediating effect remains significant. Accordingly, the pathways “place-dependent scenario → resident participation → development effectiveness” and “object-supported scenario → resident participation → development effectiveness” represent full mediation pathways. This finding suggests that place-dependent and object-supported scenarios do not directly promote rural development on their own; rather, their value can only be transformed into tangible economic and socio-cultural benefits through the activation of resident participation. In comparison, project-experience scenarios not only indirectly enhance rural development by stimulating resident participation, but also exert a direct positive influence on development effectiveness.

However, memory-imprint scenarios did not exhibit a significant mediating effect in the mediation analysis. Although several items within the memory-imprint scenario dimension showed significant regression coefficients in the “resident participation” dimension, none of the pathway coefficients linking resident participation to development effectiveness reached statistical significance within the “development effectiveness” di-

mension, and the overall effects remained unstable. Furthermore, the mediation analysis revealed that none of the pathways associated with memory-imprint scenarios entered either the partial mediation or full mediation models. The confidence intervals for the total, direct, and indirect effects all failed to pass the significance test. These results indicate that memory-imprint scenarios have not yet established an effective transmission pathway through resident participation to influence development effectiveness. In other words, resident participation does not play a significant mediating role between memory-imprint scenarios and rural development outcomes.

Table 10. Research Findings

Path	Research Hypothesis	Result
Independent Variable → Mediating Variable	H1: Memory-imprint scenarios within tourism scenario innovation types have a significant effect on resident participation.	Not supported
	H2: Place-dependent scenarios within tourism scenario innovation types have a significant effect on resident participation.	Supported
	H3: Project-experience scenarios within tourism scenario innovation types have a significant effect on resident participation.	Supported
	H4: Object-supported scenarios within tourism scenario innovation types have a significant effect on resident participation.	Supported
Mediating Variable → Dependent Variable	H5: Resident participation has a significant positive effect on the economic benefits dimension of rural development effectiveness.	Supported
	H6: Resident participation has a significant positive effect on the socio-cultural benefits dimension of rural development effectiveness.	Supported
Mediating Effect	H7: Resident participation mediates the relationship between memory-imprint scenarios and rural development effectiveness.	No mediating effect
	H8: Resident participation mediates the relationship between place-dependent scenarios and rural development effectiveness.	Full mediation
	H9: Resident participation mediates the relationship between project-experience scenarios and rural development effectiveness.	Partial mediation
	H10: Resident participation mediates the relationship between object-supported scenarios and rural development effectiveness.	Full mediation

6. Conclusion

6.1 Research Findings

Grounded in Qi Yao's (2023) classification of rural tourism scenarios and the Ladder of Citizen Participation theory, this study employed questionnaire surveys and empirical analysis in Yudong Village in Quzhou, Fengshan Village in Jiaxing, and Yong'an Village in Hangzhou, Zhejiang Province. The study systematically clarified the internal relationships among tourism scenario innovation, resident participation, and rural development effectiveness, thereby providing empirical evidence for the role of rural tourism in advancing rural revitalization. The major findings are as follows:



(1) Tourism scenario innovation exerts differentiated driving effects on resident participation, and the mediating role of resident participation varies significantly across different scenario types in influencing rural development effectiveness. Memory-imprint scenarios place greater emphasis on individuals' deep emotional attachment and cultural identification with local history and heritage. Such identification tends to be implicit and highly individualized, making it difficult to directly stimulate observable resident participation behaviors. Consequently, these scenarios fail to effectively translate into measurable development outcomes through the mediating mechanism of participation, resulting in "no significant mediating effect."

Project-experience scenarios, by contrast, possess strong experiential and interactive characteristics. These scenarios are capable of directly generating positive economic and socio-cultural impacts on rural communities even without relying entirely on residents' deep participation, thereby exhibiting a "partial mediation" effect.

Meanwhile, place-dependent scenarios and object-supported scenarios demonstrate "full mediation" effects. These two types of scenarios rely more heavily on residents' active involvement as cultural bearers, service providers, or business operators. In such cases, the scenario itself functions primarily as a participation platform, while the realization of development effectiveness depends fundamentally on residents' substantive engagement and practical involvement.

(2) Resident participation has a significant positive impact on rural development effectiveness. Clear promotional effects were observed in both the economic benefits dimension and the socio-cultural benefits dimension, with higher levels of participation corresponding to greater improvements in development effectiveness.

6.2 Theoretical Contributions

First, this study constructs a mediation path model linking "scenario type–resident participation–development effectiveness." By differentiating among four types of tourism scenario innovation, the study demonstrates the varying effects of different scenarios on resident participation and further verifies the mediating transmission mechanism of resident participation. In doing so, it enriches the "driver–mediator–outcome" theoretical framework within the field of rural tourism research.

Second, this study extends scenario theory from the domain of urban consumption to the governance context of rural tourism communities. From a resident-centered perspective, rural tourism scenarios are conceptualized as possessing dual attributes of "governance participation" and "community cohesion," thereby moving beyond the limitations of conventional tourist-oriented scenario research.

6.3 Practical Implications

Based on the empirical findings, this study proposes several actionable strategies to support the high-quality development of rural tourism and the comprehensive revitalization of rural areas across three major dimensions.

First, a more targeted approach to tourism scenario innovation should be adopted. Priority should be given to developing place-dependent scenarios and project-experience scenarios, as these are more effective in

strengthening residents' emotional attachment and willingness to participate. At the same time, homogeneous and repetitive development should be avoided. Although memory-imprint scenarios contribute to cultural immersion and local identity construction, they should be accompanied by appropriate incentive mechanisms to enhance residents' active engagement.

Second, a stratified participation mechanism should be established. Considering the differences in age, educational background, and social roles among left-behind rural residents, differentiated training programs should be implemented to improve participation capacity. In addition, low-threshold participation channels—such as staggered community meetings and online feedback platforms—should be introduced to increase convenience and accessibility for residents.

Third, a more comprehensive participation guarantee mechanism should be developed. This includes clarifying the distribution ratio of tourism-generated benefits and granting residents greater decision-making power in planning, governance, and supervision processes. Such measures can facilitate the transformation of residents from passive participants into active co-creators, thereby fostering a rural tourism development model characterized by co-construction, co-governance, and shared benefits.

6.4 Research Limitations and Future Directions

Despite its contributions, this study still has several limitations.

First, the data were primarily derived from self-reported questionnaires, lacking cross-validation with objective statistical indicators such as village-level tourism revenue and tourist flow data. Second, the case studies were confined to villages within Zhejiang Province, which may limit the generalizability of the findings to other regional contexts. Third, the study did not thoroughly examine participation differences across demographic groups, such as different age cohorts or occupational categories, suggesting that the analytical perspective could be further refined.

Future research may be expanded in three directions. First, future studies could integrate objective statistical data with qualitative methods such as in-depth interviews and longitudinal case tracking to improve the robustness and credibility of the findings. Second, digital governance variables and the interactive relationships among multiple stakeholders—including governments, enterprises, and residents—could be incorporated into the analytical framework. Third, future research should broaden the sample scope by comparing villages with different resource endowments and further segmenting resident groups, thereby providing more targeted strategies for effectively stimulating resident participation.

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