

Immersive experience construction in ancient city tourism: An exploratory study based on grounded theory

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ARTICLE INFO	ABSTRACT
<i>Article history:</i> Received March 28, 2026 Received in revised form April 20, 2026 Accepted July 22, 2026 Available online September 01, 2026 <i>Keywords:</i> Ancient city tourism Grounded theory Immersive experience Theoretical construction Tourism experience *Corresponding author: Nor Zarifah Maliki School of Housing, Building and Planning, Universiti Sains Malaysia, Penang, Malaysia Email zarifah@usm.my ORCID: https://orcid.org/0000-0003-2126-7946	<i>In the context of cultural and tourism integration, tourists increasingly pursue deep cultural perception and immersive participation at destinations. As significant carriers of cultural heritage, ancient city tourist attractions face the need for experiential upgrading. Leveraging strong narrative appeal and interactive participation, immersive experiences can not only evoke tourists' emotional resonance and form lasting experiential memories but also help promote the high-quality development of cultural consumption. Taking a typical ancient city scenic spot as a case study, this research employs the grounded theory method. Through systematic coding and analysis of tourist interview data, a theoretical framework for immersive experiences in ancient city tourist attractions is constructed, encompassing "six main aspects and fifteen dimensions." The study indicates that to effectively leverage the value of immersive experiences, ancient city scenic spots require scientific design and coordination across multiple aspects, including market positioning, experience forms, scene creation, and environmental integrity. The conclusions provide theoretical references and practical pathways for ancient city-type scenic spots to develop cultural IP, enhance tourism appeal, and promote business model innovation and sustainable development.</i>

Introduction

Research background

In recent years, global cultural tourism has exhibited a trend toward multi-level and diversified development. Data from the World Travel & Tourism Council indicate that 75% of travelers prefer tourism products committed to cultural heritage protection. As important carriers of cultural heritage, ancient cities are gradually becoming popular cultural tourism destinations. However, traditional ancient city tourism models, largely limited to static displays and one-way interpretation, struggle to meet tourists' growing demand for in-depth experiences. Concurrently,

the rise of "slow tourism" and the expansion of Generation Z have fueled demand for deep cultural participation. According to Mafengwo's 2023 Tourism Big Data Report, tourism themes such as cultural experiences and in-depth city tours have witnessed surging popularity, with cities rich in cultural heritage becoming consumption hotspots (Mafengwo 2023). These new travel formats are reshaping tourist experiences and driving market growth (People's Daily 2019).

Against this backdrop, immersive narrative has emerged as a key research direction in cultural tourism (Z. Zhang and Liu 2024). By integrating technology and spatial design with historical

culture, it enables tourists to “enter the storyline” and “assume roles,” fostering deep emotional resonance and lasting memories (Wu et al. 2024). Deep narrative through virtual reality (VR) (He 2022), scene enhancement through augmented reality (AR) (Fan, Jiang, and Deng 2022), emotional analysis through artificial intelligence (AI) (Robaina-Calderín, Martín-Santana, and Muñoz-Leiva 2023) and intelligent control through the Internet of Things (IoT) (Song 2022) not only strengthen tourist experience and participation but also provide new pathways for the expression, dissemination, and IP shaping of ancient town culture, thereby enhancing the competitiveness of ancient town tourism (Zou et al. 2023).

Research gap and objectives

However, the application of immersive experiences in ancient city scenic spots remains

exploratory, and theoretical frameworks are underdeveloped. Many traditional ancient city attractions face challenges such as monotonous experiences, weak tourist participation, and short dwell times. The selected case study Guangfu Ancient City in Handan, known as the “Little Jiangnan of the North” and the “Hometown of Tai Chi” possesses rich cultural resources but represents the typical challenges faced by traditional ancient city scenic spots.

Therefore, this study aims to address: How can a theoretical framework for immersive experiences be systematically constructed to guide experiential upgrading and sustainable development? Employing grounded theory, this research systematically codes tourists’ experience evaluations to develop a theoretical model of immersive tourism in ancient cities, providing theoretical and practical references for similar scenic spots.



Figure 1. Guangfu ancient city street view

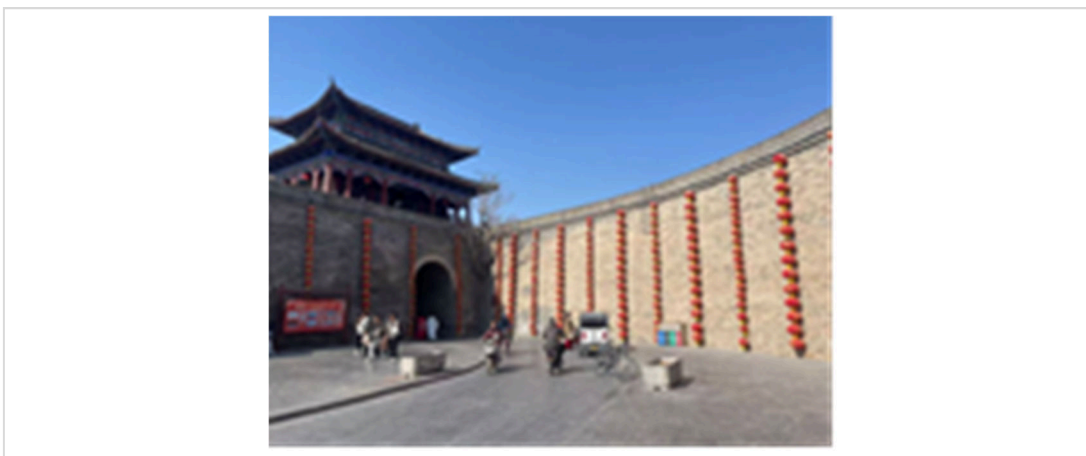


Figure 2. Guangfu ancient city wall

Theoretical foundations

Flow Theory, proposed by Csikszentmihalyi (1975), describes a positive psychological state of complete absorption in an activity, which enhances pleasure and increases the likelihood of repeated participation. From a tourism perspective, immersion involves a sense of temporal-spatial dislocation where tourists achieve high physical or mental engagement, with sensory perceptions forming the foundation of tourism experience (Blumenthal and Gjerald 2022). Domestic scholars emphasize tourists' subjectivity and the interactive relationship between tourists' bodies and destinations (B. Zhang 2022).

Scholars conceptualize immersive experience from three perspectives: drivers, process, and outcomes, emphasizing intrinsic motivation, self-personality, and emotional expression (Ma et al. 2023). Based on Flow Theory, Csikszentmihalyi (1975) posits that immersive experience refers to the process whereby tourists engage in destination activities and filter out irrelevant perceptions, thereby achieving an immersive state. Pine et al. first introduced the concept of immersion into tourism experience research, defining it as part of physical perception or virtual experience (Pine and Gilmore 1998). Lunardo et al. suggest that tourists' immersive experience comprises the perceptions and impressions of destination products or services formed during the tourism experience process, emphasizing the process of tourists' experience evaluation (Lunardo and Ponsignon 2020). Hua and Qinghe (2019) regard processes typically characterized by highly focused attention, loss of self-awareness, distorted time perception, and intrinsic pleasure as immersive experiences (Hua and Qinghe 2019).

Dimensions and measurement

Research on measuring immersive experience includes single-dimension and three-dimension approaches. Single-dimension with multiple items predominates, focusing on perceptions of the surrounding environment (Jennett et al. 2008; Lunardo and Ponsignon 2020; Jiang and Tu 2023). Three-dimension approaches include tactical, strategic, and narrative immersion (Nilsson, Nordahl, and Serafin 2016).

Influencing factors and outcomes

Tourism experience is shaped by both internal and external factors (Y. Xie 2017), with higher

involvement leading to improved experience quality (Liang et al. 2023). Interactive manifestations throughout the entire tourism activity include both interpersonal interaction and interaction with environment and atmosphere, thereby stimulating tourists' sensory experiences and emotional evaluations (Yu and Liu 2021). Immersive technologies such as VR and AR enhance tourists' sense of presence, satisfaction, and dwell time (Yan, Fukuda, and Yabuki 2019; C. Zhang 2020). Satisfied tourists are more likely to engage in word-of-mouth intention and revisit intentions (S. Xie 2024; He 2022).

Literature commentary

In summary, while Flow Theory has provided a foundation for immersive experience research, a comprehensive theoretical system remains undeveloped. Key challenges include defining the concept, understanding its structural components, developing multidimensional measurement, and clarifying its value-creation mechanisms.

Methods

Research methods

This study adopts a qualitative approach using grounded theory to construct a theoretical framework for immersive experiences in ancient city tourism. A typical ancient city scenic spot was selected as a case study, and data were collected through semi-structured interviews. Open coding, axial coding, and selective coding were employed to analyze the interview data. Grounded theory, co-developed by Glaser and Strauss (1967), is a bottom-up approach that extracts core concepts from empirical data and constructs social theories through in-depth analysis of relationships between concepts.

Measurement tools

Semi-structured interviews were conducted using a pre-designed interview guide (see figure 3). The interviews were audio-recorded with participants' consent and transcribed verbatim for analysis. The interview questions focused on tourists' perceptions of immersive experiences, including their emotional responses, engagement levels, and overall satisfaction.

Interview Guide

Research Title: Immersive Experience Construction in Ancient City Tourism: An Exploratory Study Based on Grounded Theory

Participants: Tourists who have visited ancient cities

Duration: 15-20 minutes

Part 1: Tourism Experience Recall 1. Please recall an ancient city you have visited where you felt an immersive tourism experience. Which ancient city did you visit? 2. Why did you choose to visit this ancient city?

Part 2: Immersive Experience Perception 3. During this trip, did you feel “immersed” in the experience? Please describe the situation. 4. Did you feel completely engaged in the tourism activities? What made you feel that way? 5. Did you lose track of time or forget real-life worries? Please describe in detail.

Part 3: Interaction and Participation 6. During the trip, did you interact with local residents, tour guides, or other tourists? How did these interactions make you feel? 7. Did you participate in any experiential activities (e.g., role-playing, handicraft making, AR navigation, etc.)? How did these activities make you feel?

Part 4: Culture and Perception 8. How much did you know about the cultural background of the ancient city before your visit? Did this change after your visit? 9. How would you describe the cultural atmosphere of the ancient city during your visit? What details impressed you the most?

Part 5: Expectations and Satisfaction 10. What were your expectations for this ancient city trip? Did the actual experience meet your expectations? 11. How satisfied were you with this trip overall? Please rate on a scale of 1 to 10 and explain why.

Part 6: Behavioral Intentions 12. Would you recommend this ancient city to your friends or family? Why or why not? 13. Would you visit this ancient city again in the future? Why or why not?

Figure 3. Interview guide

Data collection

Data were collected in February 2025 through semi-structured interviews conducted both online and offline. The interviews focused on tourists' perceptions of immersive experiences, including their emotional responses, engagement levels, and overall satisfaction (see [figure 3](#)). A total of 30 interviewees (15 males, 15 females) were selected based on the criteria of having visited ancient cities at least three times and being able to articulate aspects of ancient city culture and tourism expectations. Each interview lasted 15-20 minutes, resulting in 31,745 transcribed words.

Results and discussion

Coding process and category identification

Through progressive coding and conceptualization of the interview transcripts from 30 respondents, 128 initial concepts were ultimately abstracted from the raw data and further summarized into 15 core categories (see [figure 4](#) and [table 1](#)). These categories encompass multiple dimensions of tourists' immersive experiences, including cognition, emotion, behavior, and interaction, specifically comprising: host-guest interaction, ecstasy, desire, physical perception, authenticity, willingness, emotion, losing track of time, interest, escape from reality, active integration, temporary role-playing, interpretation, and behavior. This categorization lays the foundation for subsequent construction of the theoretical model.

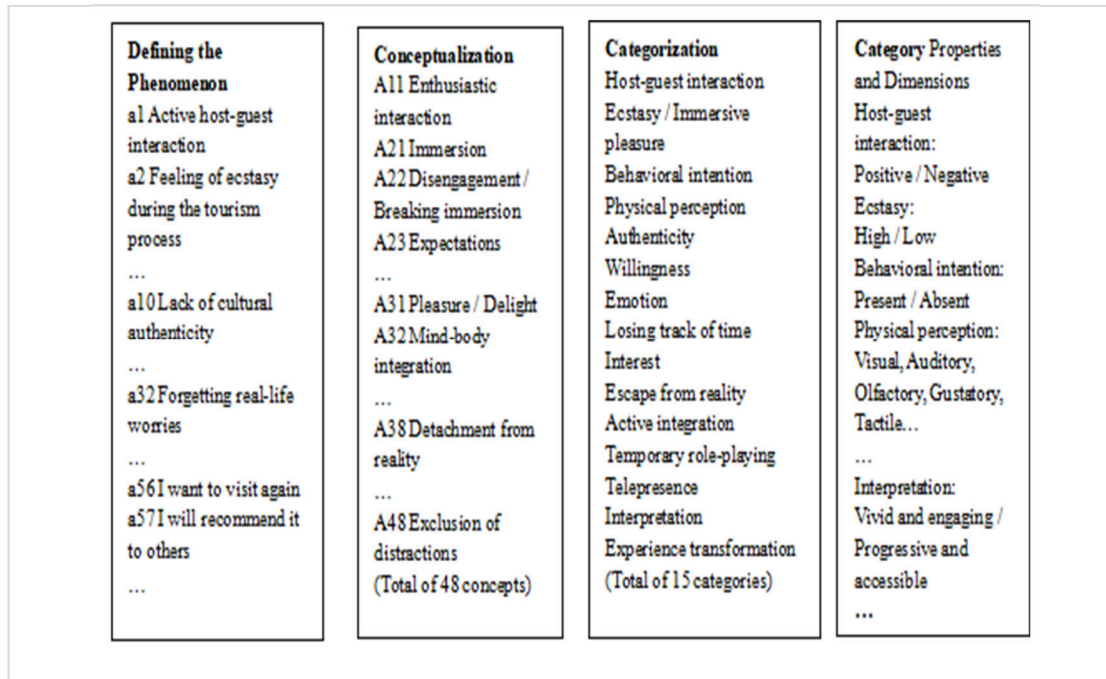


Figure 4. Examples of conceptualization and categorization

Table 1. Main categories and subcategories

Main category	Corresponding categories	Category connotation
Cultural Perception	Interpretation, Interest, Authenticity	Tourists' cognition and evaluation of ancient town cultural dissemination
Emotional Expression	Ecstasy	Positive emotional experiences such as perception and feeling during the tour
Temporal-Spatial Dislocation	Losing track of time, Temporary role-playing, Physical perception, Escape from reality	Tourists' perception of time distortion and spatial dislocation during the tour
Interactive Participation	Active integration, Host-guest interaction	The degree of tourists' participation and involvement during the tour
Mechanism of Action	Interest, Emotion, Desire	Tourists' emotional resonance, cultural interest, and desire for further understanding and experience
Outcome	Willingness, Behavior	Tourists' expression of revisit intention and word-of-mouth recommendation for the ancient town

Based on open coding, six main categories were further refined by exploring the logical relationships between categories (see table 1). These are: Cultural Perception (encompassing cognitive evaluations of cultural authenticity, interpretation, and interest); Emotional Expression (centered on positive emotions such as ecstasy); Temporal-Spatial Dislocation (manifested as losing track of time, temporary role-playing, physical perception, and escape from reality); Interactive Participation (including active integration and host-guest interaction); Mechanism of Action (the psychological process

triggering interest, emotion, and desire); and Outcomes (ultimately behavioral intentions and word-of-mouth intention).

The analysis indicates that immersive experience is essentially a psychological state of high engagement and high involvement formed by tourists through deep interaction with cultural contexts, characterized by a significant sense of temporal-spatial dislocation. This state directly influences tourists' evaluations of destination products and services, as well as their subsequent behavioral intentions.

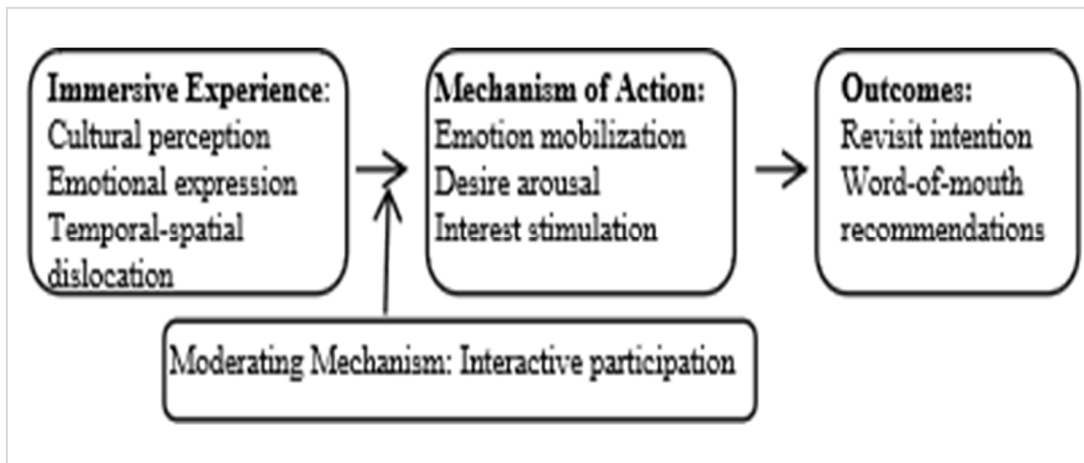


Figure 5. Mechanism of immersive experience

The study identifies the "Dynamic Mechanism Model of Immersive Experience in Ancient City Tourist Attractions" as the core category, which systematically integrates the intrinsic relationships among the main categories (see figure 5). The model reveals that immersive experience shapes tourists' core experience through three dimensions cultural perception, emotional expression, and temporal-spatial dislocation. This process is critically moderated by the degree of interactive participation and, via the mechanism of action (stimulating interest mobilizing emotions arousing desire), ultimately leads to positive outcomes (revisit intention and word-of-mouth recommendation).

Core findings: The immersive experience framework

Through grounded analysis of interview data, this study reveals that the refinement and transformation of ancient city cultural connotation constitute the cornerstone for constructing immersive tourism experiences in ancient cities. Currently, many ancient city scenic spots face three core cultural issues when developing immersive projects: superficial expression leading to insufficient narrative depth, haphazard accumulation of cultural elements resulting in loose themes, and cognitive barriers preventing tourists from forming emotional resonance. In interviews, some tourists reported being "unfamiliar with the cultural background," "unable to understand the unique significance of this culture," or perceived that the experience content had "weak connections with ancient city culture" and featured "tedious and uninspired theme design," reflecting dilemmas such as lack

of cultural core, insufficient narrative appeal, and ineffective emotional transmission.

The research further indicates that successful immersive experiences fundamentally depend on the innovative transformation and immersive expression of cultural cores. This requires developers not only to effectively refine representative cultural symbols from historical contexts but also to creatively transform them through modern narrative techniques. Specifically, breakthroughs are needed at three levels: first, clear transmission of cultural meaning to ensure cognitive accessibility; second, innovative design of content and form to enhance experiential appeal; and finally, organic integration of technological means to heighten situational immersion. This implies that ancient city tourist attractions must move beyond the current practice of simply accumulating cultural elements, instead conducting cultural screening, narrative reconstruction, and technological empowerment through deep excavation of local cultural elements, thereby shaping immersive products that possess both cultural authenticity and modern experiential quality.

Through interviews and coding analysis based on grounded theory, a "Cognitive-Affective-Conative" generation path for immersive experience was identified, revealing the internal logic of transformation from psychological response to behavioral change.

At the cognitive level, the uniqueness of cultural content, coherence of narrative, and novelty of scenes are key factors arousing tourist interest and attention. Frequent feedback from interviewees such as "this cultural expression is very novel" and "the scene design made me want

to learn more" indicates that effective organization and presentation of cultural elements successfully trigger tourists' cognitive demands and exploratory desires.

At the affective level, interest generated by cognition further transforms into positive emotional responses. Experiences described by tourists such as "the scene authenticity moved me" and "I really wanted to experience it myself" reflect the core role of situational authenticity and immersion in emotional arousal. During this stage, tourists transform from passive observers to active emotional participants, generating positive emotions such as resonance, pleasure, and anticipation.

At the conative level, emotional experiences stimulate strong participation desires and behavioral intentions. Expressions such as "I really look forward to visiting" and "I will definitely recommend it to others" signify the complete transformation of experiential psychology from internal feelings to external behavior. These three stages indicate that the realization of immersive experience requires not only the integration of external cultural elements in ancient cities but also systematic guidance and continuous activation of tourists' psychological processes.

The moderating role of interactive participation and group differences

The ultimate effect of immersive experience depends on both internal psychological paths and the moderating role of interactive participation. Interviews revealed three key factors influencing tourist immersion and satisfaction.

First, interaction quality directly impacts experiential outcomes. When tourists encounter deficiencies in interactive design such as technical failures or narrative disruption satisfaction decreases. Some tourists noted that "participation methods were more complex than imagined."

Second, preferences for interaction forms vary across tourist groups. "Generation Z" tourists show higher willingness to engage in interactive, narrative-rich experiences (e.g., live-action role-playing, AR treasure hunts), while middle-aged groups prioritize cultural authenticity and experiential comfort.

Third, the alignment between cultural background and experience medium affects

participation outcomes. Local tourists pay more attention to cultural accuracy, whereas non-local tourists focus on interest and comprehensibility. High-level interactive participation not only enhances immediate experiences but also exerts lasting effects on tourists' subsequent behavior. Tourists who achieve deep immersive experiences exhibit stronger revisit intentions and word-of-mouth intention. Therefore, scenic spots should consider audience characteristics and interaction paths in content design, continuously optimizing experiences through dynamic feedback mechanisms to maximize the cultural and market value of immersive tourism.

Theoretical framework and implementation pathways

Based on grounded theory, this study constructs a theoretical framework for immersive tourism in ancient city attractions, comprising four levels Cultural Theme, Expression Form, Mechanism of Action, and Outcomes and fifteen dimensions (figure 6). The framework indicates that effective immersive experiences require cultural core refinement, expression form innovation, psychological mechanism triggering, and behavioral outcome transformation, aligning with the "Cultural IP + Technology Empowerment" pathway advocated by the Ministry of Culture and Tourism.

From this framework, three implementation pathways can be identified:

First, it is necessary to deeply excavate local cultural resources, selecting cultural elements with profound cultural heritage, high social recognition, and core influence to establish a positive and distinctive cultural theme. Second, it is essential to innovate experiential expression forms, designing immersive products that both embody cultural connotations and possess a sense of participatory quality, based on the emotional characteristics and interactive preferences of tourists of different ages. Finally, attention should be paid to the communication trigger effect, activating the psychological chain of "interest—emotion—desire" among tourists through precise content marketing and contextual preheating, thereby guiding tourists to transform cognitive desires into on-site experiential behaviors. The specific implementation strategies are as follows:

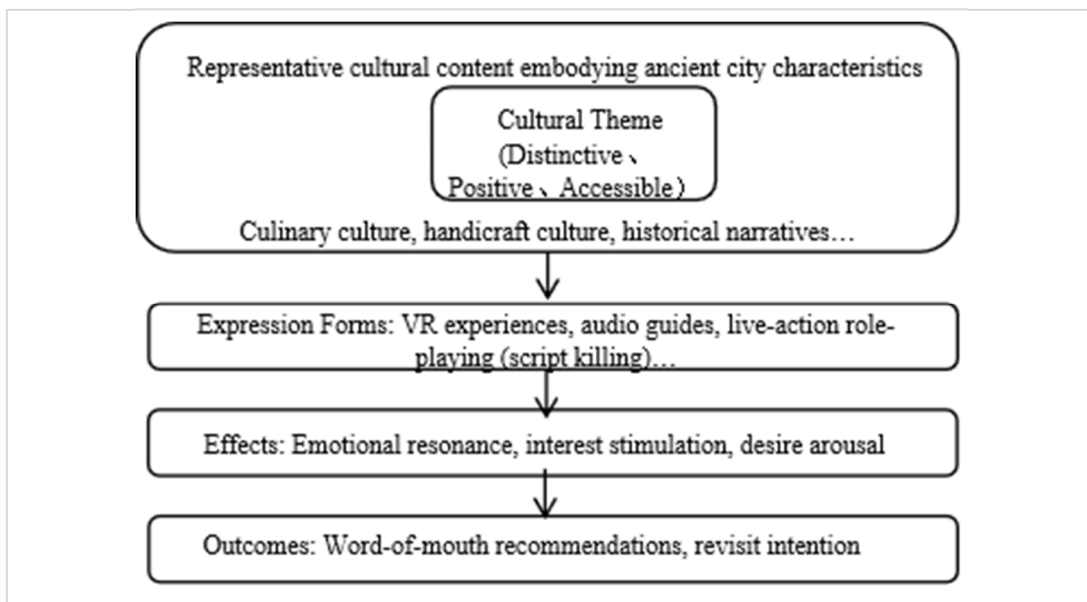


Figure 6. Theoretical framework of immersive experience

Practical implications for destination management

Immersive tourism functions as both a product form and a marketing tool. Its effectiveness is constrained by the quality of immersive tourism products and highly dependent on the precise refinement and expression of ancient city cultural values. Therefore, ancient city scenic spots need to establish market positioning at the strategic level, aiming to create highly recognized cultural IP by adeptly excavating local cultural characteristics, amplifying cultural details, and focusing on the most representative and influential cultural symbols, thereby avoiding the generalization and fragmented use of cultural resources. In promotional efforts, content construction should revolve around highly narrative and easily disseminable themes such as "anecdotes of celebrities" and "historical stories" (e.g., "The Legend of King Wuling of Zhao," "Hufu Qishe" — adopting nomadic dress and mounted warfare), forming clear and compelling value labels.

The diversification of tourism demands requires diversified immersive products. Modern technologies (VR, AR, audio-visual effects, etc.) support scene creation, yet tourists value emotional interaction and authentic participation over high-tech sensory stimulation. Therefore, developers should avoid "technological showmanship" and emphasize emotional interaction and narrative participation. For

example, integrating "script killing" with ancient town live-action settings enhances cultural exploration and activates the "interest—emotion—desire" pathway.

Immersion is the core element of immersive tourism, originating from the completeness of scenes and the sense of situational involvement. Ancient city tourist attractions should transcend the limitations of single business formats, continuously creating and enriching the scenes required for immersive tourism. This involves promoting the integration of virtual and physical spaces such as performances, exhibitions, escape rooms, blocks, and collection halls, thereby constructing a multi-dimensional and multi-layered immersive business ecosystem that meets tourists' authentic emotional needs. In scene design, it is necessary to balance cultural perception, emotional resonance, and interactive participation. This requires both tapping into the potential of traditional cultural resources and leveraging the efficacy of technology to enhance experiences, achieving deep application of technologies such as AR, VR, and MR while organically integrating them with cultural content, thereby avoiding the mere technological replication detached from the cultural core.

Immersive experience is a holistic manifestation that needs to ensure the entire process from environmental setting, cultural expression, and technological support to tourist behavior guidance. Not only should the physical

environment align with the theme, but atmosphere creation, service procedures, and participant behavior must also maintain consistency, avoiding immersion disruption caused by disjointed links. Successful immersive design should stimulate tourists' autonomous exploration and emotional resonance through situational rendering and cultural suggestion, appropriately leaving room for tourists' imagination, enabling them to complete personalized interpretation and in-depth experience of local culture through interaction.

Conclusions

Based on grounded theory, this study constructs a theoretical framework of immersive experience in ancient city tourism. The framework comprises four core layers Cultural Theme, Expression Form, Mechanism of Action, and Outcomes and encompasses fifteen dimensions. It reveals that immersive experience is generated through a psychological pathway of “interest → emotion → desire,” with interactive participation serving as a key moderating mechanism. Specifically, cultural perception, emotional expression, and temporal-spatial dislocation jointly shape tourists' immersive state, which in turn influences revisit intention and word-of-mouth intention.

This study offers both theoretical and practical contributions. Theoretically, it clarifies the psychological transmission mechanism of “interest—emotion—desire” and the moderating role of interactive participation, while expanding the application of grounded theory in tourism experience research. Practically, it provides implementation pathways for ancient city tourist attractions: emphasizing narrative activation of cultural IP, advancing technological applications toward emotional interaction, and ensuring the completeness and continuity of immersive scenes.

Future research may examine the universal applicability of this framework through multi-case comparisons or quantitative methods.

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References

- Blumenthal, Veronica, and O. Gjerald. 2022. “‘You Just Get Sucked into It’: Extending the Immersion Process Model to Virtual Gameplay Experiences in Managed Visitor Attractions.” *Leisure Studies* 41 (5): 722–41. <https://doi.org/10.1080/02614367.2022.2049627>.
- Csikszentmihalyi, Mihaly. 1975. *Beyond Boredom and Anxiety*. San Francisco: Jossey-Bass Publishers.
- Csikszentmihalyi, Mihaly. 1990. *Flow: The Psychology of Optimal Experience*. New York: Harper Perennial.
- Fan, Xiaojun, Xinyu Jiang, and Nianqi Deng. 2022. “Immersive Technology: A Meta-Analysis of Augmented/Virtual Reality Applications and Their Impact on Tourism Experience.” *Tourism Management* 91 (August):104534. <https://doi.org/10.1016/j.tourman.2022.104534>.
- Glaser, Barney G., and Anselm L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Chicago: Aldine.
- He, Xinpeng. 2022. “An Empirical Analysis of Factors Influencing the Impact of Virtual Reality (VR) Immersive Experience on Tourist Behavior.” Nanchang University.
- Hua, Jian, and Chen Qinghe. 2019. “Immersive Experience: A New Business Format Integrating Culture and Technology.” *Journal of Shanghai University of Finance and Economics (Philosophy and Social Sciences Edition)* 21 (5): 18–32.
- Jennett, Charlene, Anna L. Cox, Paul Cairns, Samira Dhoparee, Andrew Epps, Tim Tijs, and Alison Walton. 2008. “Measuring and Defining the Experience of Immersion in Games.” *International Journal of Human-Computer Studies* 66 (9): 641–61. <https://doi.org/10.1016/j.ijhcs.2008.04.004>.
- Jiang, ZiMing, and HongWei Tu. 2023. “Does Sincere Social Interaction Stimulate Tourist Immersion? A Conservation of Resources Perspective.” *Journal of Travel Research* 62

- (2): 469–87.
<https://doi.org/10.1177/00472875211067549>.
- Liang, Sai, Jiajia Tian, Jianchao Diao, and Chunxiao Li. 2023. “Research on Emotional Heterogeneity of Tourist Online Ratings and Influencing Factors Based on Three-Dimensional Theory.” *Nankai Business Review* 4:223–33, 256.
- Lunardo, Renaud, and Frédéric Ponsignon. 2020. “Achieving Immersion in the Tourism Experience: The Role of Autonomy, Temporal Dissociation, and Reactance.” *Journal of Travel Research* 59 (7): 1151–67.
<https://doi.org/10.1177/0047287519878509>.
- Ma, Zexin, Rong Ma, Meng Chen, and Nathan Walter. 2023. “Present, Empathetic, and Persuaded: A Meta-Analytic Comparison of Storytelling in High versus Low Immersive Mediated Environments.” *Human Communication Research* 50 (1): 27–38.
<https://doi.org/10.1093/hcr/hqad030>.
- Mafengwo. 2023. “2023 Tourism Big Data Report.” 2023.
<https://www.digitaling.com/articles/1016742.html>.
- Nilsson, Niels Christian, Rolf Nordahl, and Stefania Serafin. 2016. “Immersion Revisited: A Review of Existing Definitions of Immersion and Their Relation to Different Theories of Presence.” *Human Technology* 12 (2): 108–34.
<https://doi.org/10.17011/ht/urn.201611174652>.
- People’s Daily. 2019. “New Tourism Formats with Strong Participation Rise, Immersive Tourism Brings New Experiences.” 2019.
<https://news.cctv.com/2019/11/20/ARTIJErq5NoFk1cUIXz9KGRN191120.shtml>.
- Pine, B. Joseph, and James H. Gilmore. 1998. “Welcome to the Experience Economy.” *Harvard Business Review* 7:97–105.
- Robaina-Calderin, Lorena, Josefa D. Martín-Santana, and Francisco Muñoz-Leiva. 2023. “Immersive Experiences as a Resource for Promoting Museum Tourism in the Z and Millennials Generations.” *Journal of Destination Marketing & Management* 29 (September):100795.
<https://doi.org/10.1016/j.jdmm.2023.100795>.
- Song, Ziqian. 2022. “Technology Leads High-Quality Tourism Development During the ‘14th Five-Year Plan’ Period.” *Tourism Tribune* 35 (6): 10–12.
- Wu, Xinyang, Xuecheng Liang, Xincheng Zhang, Nan Gao, and Xiao Song. 2024. “Tourist Immersion: Conceptualization, Scale Development, and Validation.” *Tourism Science* 38 (9): 59–77.
- Xie, Shuhong. 2024. “Research on Factors Influencing Satisfaction with Immersive Experiences in Anxi Tea Manor.” Fujian Agriculture and Forestry University.
- Xie, Yanjun. 2017. *Tourism Experience Research: A Phenomenological Perspective*. Beijing: China Travel & Tourism Press.
- Yan, Liang, Tomohiro Fukuda, and Nobuyoshi Yabuki. 2019. “Intergrating UAV Development Technology with Augmented Reality toward Landscape Tele-Simulation.” In *Intelligent and Informed: Proceedings of the 24th International Conference*, 423–32.
<https://doi.org/10.52842/conf.caadria.2019.1.423>.
- Yu, Zhiyuan, and Yue Liu. 2021. “The Formation of Residents’ Sense of Place in Ethnic Village Tourism Destinations from the Perspective of Community Tourism Participation.” *Tourism and Hospitality Prospects* 1:23–42.
- Zhang, Bingchao. 2022. “Tourists’ Immersive Experience: Conceptualization, Driving Factors, and Effects.” Dongbei University of Finance and Economics.
- Zhang, Chenyan. 2020. “The Why, What, and How of Immersive Experience.” *IEEE Access* 8:90878–88.
<https://doi.org/10.1109/ACCESS.2020.2993646>.
- Zhang, Zheng, and Chenxu Liu. 2024. “Cultural Common Sense: Transcendental Feeling and Creative Understanding in Immersive Cultural Consumption Experience.” *Journal of Tongji University (Social Science Edition)* 35 (3): 30–39.
- Zou, Jun, Zhen Zhang, Liguang Yang, Ying Pan, and Siqin Zou. 2023. “Consumptive Heritage of Tourist Ancient Towns: Characteristics, Mechanisms, and Effect Measurement.” *Human Geography* 4:165–75.

Author(s) contribution

Li Ran contributed to the research concepts preparation, methodologies, investigations, data analysis, visualization, articles drafting and revisions.

Nor Zarifah Maliki contribute to the research concepts preparation and literature reviews,

data analysis, of article drafts preparation and validation.

Wang Zhe contribute to methodology, supervision, and validation.

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