Embodiment Theory Perspective: Dimension Deconstruction, Scale Development, and Optimization Paths of Tourism Experience Quality

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Abstract: Against the backdrop of the in-depth development of the experience economy and transformation of tourism demand towards depth and personalization, embodiment theory provides a core perspective to address the "disembodied" dilemma in traditional tourism experience research. The interaction between the body and the environment, as well as the situational interaction of physical and mental presence, have become the key core defining tourism experience quality. This paper integrates empirical research results from diverse scenarios such as immersive tourism and rural tourism, systematically deconstructs the core dimensions and constituent elements of embodied tourism experience quality, constructs and validates a comprehensive evaluation tool encompassing three levels (physical, situational, and emotional) based on standardized scale development processes, and proposes targeted experience optimization strategies combined with the practical characteristics of different tourism scenarios. The research aims to improve the theoretical system of embodied tourism experience and provide a scientific theoretical framework and practical guidance for tourism destinations to accurately meet tourist needs, enhance experience quality, and boost sustainable competitiveness.

Keywords: Embodiment Theory; Tourism Experience Quality; Dimension Deconstruction; Scale Development; Experience Optimization; Diverse Scenarios

1. Introduction

As tourism consumption upgrades from superficial sightseeing to in-depth "physical and mental immersion" experiences, tourists increasingly value physical participation, sensory arousal, and emotional resonance during their travels [1]. Traditional tourism experience evaluation mostly focuses on external factors such as service quality and facility conditions, neglecting the core role of the body in cognitive formation and emotional generation, making it difficult to fully capture the situational and holistic characteristics of tourism experiences. Embodiment theory emphasizes that cognition arises from the dynamic interaction between the body and the environment, advocating an epistemological stance of "the unity of body and mind," which provides a new paradigm for re-examining the essence of tourism experiences [2].

Currently, academic circles have carried out diverse explorations on the application of embodiment theory in the field of tourism: including the construction of experience quality evaluation systems based on immersive tourism scenarios, empirical analysis of embodied experiences in rural tourism, and research on the development of scales for embodied tourism experience quality. These studies have achieved phased results from perspectives such as evaluation indicators, scenario characteristics, and measurement tools, but there are issues such as fragmented dimension definitions, insufficient scenario adaptability, and inadequate connection between theory and practice. Therefore, this paper integrates the core findings of three types of research, systematically sorts out the dimensional composition of embodied tourism experience quality, optimizes and validates a universal evaluation scale, and proposes experience optimization paths combined with diverse scenarios, aiming to promote the systematization and in-depth development of embodied tourism experience research and provide more targeted guidance for the product innovation and service upgrading of tourism destinations [3]. At the same time, with the rapid development of digital tourism and experiential consumption, the embodied perspective has been

widely used in cultural tourism, wellness tourism and other fields, which further highlights the practical urgency of this research [4].

2. Core Connotation and Dimension Deconstruction of Embodied Tourism Experience Quality

2.1 Definition of Core Connotation

Based on the core viewpoints of embodiment theory and existing research results, this paper defines embodied tourism experience quality as: the comprehensive level of emotional perception, emotional accumulation, and meaning construction formed by tourists through multi-sensory participation, physical practice, and environmental interaction in specific tourism scenarios, with the "phenomenal body" as the carrier [5]. Its essence is the result of the dynamic coupling of the body, scenario, and emotions, manifested as a progressive process of "sensory arousal - situational integration - emotional sublimation." This concept breaks through the "disembodied" cognition of traditional experience quality, highlighting three characteristics: the subjectivity of the body, the constraint of the scenario, and the generativity of the experience.

2.2 Three-Dimensional Deconstruction and Element Analysis

Integrating the dimensional divisions and empirical findings of the three studies, embodied tourism experience quality can be divided into three core dimensions: physical perception, scenario adaptation, and emotional response, each containing specific constituent elements, forming a hierarchical and interrelated dimensional system:

2.2.1 Physical Perception Dimension: As the starting point and core of embodied tourism experience, it manifests as the direct experience obtained by tourists through multi-sensory participation and physical practice, laying the foundation for subsequent cognition and emotional generation. It includes three core elements: intensified sensory experience (the arousal and stimulation intensity of tourists' vision, hearing, taste, smell, touch, and other senses), cross-modal sensory experience (the synergy and mutual complementarity between multiple senses), and overall physical experience (the body's movement state, participation level, and comfort).

2.2.2 Scenario Adaptation Dimension: As a necessary condition for the generation of embodied experiences, its embodied sentience directly affects the possibility and depth of tourists' physical participation, covering four key elements: basic landscape elements (native background landscapes and humanistic landscapes), facility and equipment elements (hardware facilities supporting multi-sensory experiences and physical participation), atmosphere and service elements (emotional atmosphere and supporting services created by the scenario), and interactive participation space (scenario designs providing free play and creative expression for tourists).

2.2.3 Emotional Response Dimension: As the core output and value embodiment of embodied experiences, it is the result of the interaction between the body and the scenario, including two progressive levels: mood of surprising delight (positive emotions such as pleasure and intoxication brought by experiences exceeding expectations) and emotional sublimation (spiritual purification, meaning construction, and self-transcendence obtained through physical participation). Existing studies have confirmed that physical discomfort and physical challenges can also be transformed into emotional satisfaction and spiritual sublimation under the interaction of body and mind [6].

3. Integrated Development and Validation of the Embodied Tourism Experience Quality Scale

To realize the scientific measurement of embodied tourism experience quality, this paper integrates existing scale development results, optimizes a comprehensive evaluation scale containing 21 items combined with the practical characteristics of immersive tourism and rural tourism, and completes reliability and validity verification through standardized processes. On this basis, this paper further clarifies the applicability of the scale in different scenarios, which provides a reliable tool for quantitative research of embodied tourism experience [7].

3.1 Scale Development Process

Following the classic scale development process of "theoretical deduction--dimension classification--item generation--purification and revision--reliability and validity testing": first, an initial item pool containing 36 items is

initially formed based on embodiment theory and existing research; 13 items with ambiguous expressions and low relevance are deleted through expert consultation; a pre-survey is conducted among 80 students with tourism experience, and 2 items with factor loadings below 0.5 are further deleted, forming an initial scale of 21 items; two rounds of surveys are conducted among national tourists, the scale structure is optimized through exploratory factor analysis and confirmatory factor analysis, and finally reliability and validity testing and criterion validation are completed. This process strictly abides by the norms of scale development in tourism research, ensuring the stability and accuracy of the scale [8].

3.2 Final Scale Structure

Based on the above purification and screening, the final version of the Embodied Tourism Experience Quality Scale is formed, as shown in Table 1. The scale consists of six dimensions and 21 core measurement items, covering the complete logical chain of physical perception, scenario adaptation and emotional response.

It can be seen from Table 1 that the scale items are closely linked to the three core dimensions of embodied tourism experience. Among them, the physical perception dimension focuses on the direct sensory and physical experience of tourists; the scenario adaptation dimension emphasizes the supporting role of scene elements for embodied experience; the emotional response dimension reflects the high-level emotional output generated by the interaction between body and scene. The three dimensions are progressive and complementary, which can fully reflect the connotation and structural characteristics of embodied tourism experience quality.

Table 1. Composition and Core Items of Embodied Tourism Experience Quality Scale

Dimensions	Core Items (Example)
Intensified Sense Experience	1. My sensory perceptions became more acute; 2. I received strong sensory stimulation; 3. I actively participated in creating my unique sensory experience
Cross-Modal Sensory Experience	1. The interaction of multiple senses enriched my experience; 2. Cross-sensory experiences helped me better integrate into the scenario
Overall Physical Experience	1. Physical comfort and relaxation motivated me to actively seek various experiences; 2. Personal participation made me feel changes in myself
Embodied Sentience of the Tourism Scene	1. The scenic area provided space for free participation and creative expression; 2. Facilities and equipment supported my multi-sensory experience; 3. The scenario atmosphere aroused the activation of my different senses
Mood of Surprising Delight	1. This experience exceeded my expectations; 2. I was deeply immersed in pleasant emotions
Emotional Sublimation	1. This experience gave me unique life significance; 2. I enjoyed the joy transformed from physical challenges

3.3 Scale Validation Results

The overall Cronbach's α coefficient of the final scale is 0.84, with Cronbach's α coefficients of each dimension ranging from 0.74 to 0.89. Both composite reliability and average variance extracted (AVE) values meet academic standards, indicating good reliability and convergent validity; discriminant validity testing shows that the square root of the AVE of each latent variable is greater than the correlation coefficient between the latent variable and other variables, confirming good discriminant validity; linear regression analysis with revisit intention as the criterion variable shows that all six dimensions significantly positively affect revisit intention (β values ranging from 0.15 to 0.55, $p<0.001$), verifying good criterion validity of the scale. This result is consistent with the reliability and validity standards of mature tourism experience scales, which proves that the scale can be widely used in empirical research [9].

4. Embodied Experience Characteristics and Optimization Paths in Different Tourism Scenarios

4.1 Immersive Tourism Scenarios

Immersive tourism is supported by technology as the core, with the key advantages of embodied experiences lying in the intensity of sensory stimulation and scenario immersion, but it is prone to problems such as insufficient cultural connotation and single interaction forms. Optimization paths: strengthen multi-sensory

synergy and technological innovation to achieve the in-depth integration of vision, hearing, touch, and other dimensions; deepen cultural and emotional integration, avoid technological stacking, and embed regional cultural elements into scenario design; optimize supporting landscapes and services, improve infrastructure and professional guidance, and reduce tourists' embodied obstacles.

4.2 Rural Tourism Scenarios

The embodied advantages of rural tourism lie in the authenticity of natural landscapes and the participation of agricultural experiences, with core problems focusing on inadequate infrastructure, insufficient service levels, and homogeneous experiences [10]. Optimization paths: enrich highly interactive rural tourism projects, tap into regional cultural and agricultural resources, and develop participatory activities such as parent-child cycling and agricultural experience; improve infrastructure and services, upgrade transportation and accommodation conditions, and standardize scenic area management and pricing; strengthen scenario atmosphere creation, preserve the original rural style, and integrate folk culture and intangible cultural heritage elements into scenario design [11].

4.3 Universal Optimization Strategies

4.3.1 Sensory arousal strategy:

Systematically plan multi-sensory stimulation, avoid over-reliance on a single sense, and enhance the richness of experiences through cross-sensory interaction. In the design of tourism products, we should pay attention to the coordinated configuration of vision, hearing, smell, taste and touch, so as to enhance the integrity of embodied experience [12].

4.3.2 Scenario adaptation strategy:

Optimize scenario design according to the characteristics of target audiences, balancing the personalization and universality of experiences [13]. For different age groups and consumption groups, we should build differentiated scenario spaces to improve the fit between tourists and scenarios.

4.3.3 Emotional guidance strategy:

Guide tourists to progress from mood of surprising delight to emotional sublimation through scenario narration and experience rhythm design, forming lasting memories and emotional connections. With the help of story-based scene creation and immersive participation, tourists can obtain spiritual satisfaction and value perception [14]. Existing tourism experience measurement methods mostly focus on post-experience static evaluation, lacking real-time and dynamic tracking of embodied processes [15]. Therefore, the scale developed in this study can effectively make up for the above deficiencies and provide a more comprehensive measurement tool for tourism experience research.

5. Conclusions and Prospects

5.1 Research Conclusions

By integrating research results on immersive tourism, rural tourism, and scale development, this paper systematically constructs a theoretical framework and measurement tool for embodied tourism experience quality. The main conclusions are as follows:

First, embodied tourism experience quality consists of three core dimensions (physical perception, scenario adaptation, emotional response), including 6 sub-dimensions and 21 core indicators, forming a logical chain of “physical participation--scenario support--emotional sublimation”. This dimensional system takes the body as the core, takes the scene as the carrier, and takes emotion as the goal, which makes up for the lack of "disembodied" in traditional tourism experience research.

Second, the developed embodied tourism experience quality scale has passed strict reliability and validity testing, with good reliability and applicability, and can be used for the measurement and comparison of experience quality in different tourism scenarios. The scale has high stability and effectiveness, and can provide a quantitative basis for destination experience evaluation and management.

Third, embodied experiences in different tourism scenarios have distinct characteristics: immersive tourism should focus on technological empowerment and cultural integration, while rural tourism should focus on authentic experiences and facility improvement. Different types of tourism destinations should adopt differentiated optimization paths according to their own resource endowments and experience characteristics.

5.2 Theoretical Contributions and Practical

Value

The theoretical contributions of this study are mainly reflected in two aspects: on the one hand, it breaks through the "disembodied" limitations of traditional tourism experience research, systematically deconstructs the dimensional system of embodied experience quality, and forms a unified theoretical framework; on the other hand, the developed scale realizes the operationalization of "embodied tourism experience quality", enriching the application achievements of embodiment theory in the field of tourism.

In terms of practical value, this study provides clear guidance for the product innovation, scenario design, and service optimization of tourism destinations. Destinations can identify experience shortcomings through scale measurement, and carry out targeted optimization in terms of sensory stimulation, facility configuration, and emotional guidance, so as to improve tourist satisfaction and loyalty, and enhance the sustainable competitiveness of destinations.

5.3 Research Limitations and Future Directions

This study still has certain limitations: the regional distribution and tourism types of the scale validation samples can be further expanded; the effectiveness of experience optimization strategies needs to be verified through long-term follow-up surveys. Future research can expand the sample scope to validate the applicability of the scale in more tourism scenarios; use real-time tracking methods (such as wearable devices) to collect experience data, reducing recall bias; explore the differential impacts of various dimensions of embodied experience quality on tourists' post-travel life satisfaction and well-being, and identify cultural drivers behind the perceived differences of tourists from different cultural backgrounds. At the same time, combined with the development trend of digital intelligence, we can further explore the formation mechanism and optimization path of embodied tourism experience in the digital environment.

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