

The Study on the Impact of Museum Tourism on Visitors' Cultural Identity

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Abstract: This study explores the impact of museum tourism on visitors' cultural identity. Through a questionnaire survey and in-depth interviews with 600 visitors from three museums in Guangdong Province, combined with SPSS 26.0 data analysis, it is found that the immersion, education, and interactivity dimensions of museum tourism experience are significantly positively correlated with visitors' cultural identity ($P < 0.01$), among which the standardized path coefficient of interactivity experience reaches 0.421, showing the most prominent impact. The research provides empirical evidence for museums to optimize their cultural communication functions and suggests enhancing visitors' cultural identity construction from three levels: scenographic exhibition design, digital interactive development, and cultural IP derivatives.

Keywords: Museum Tourism; Cultural Identity; Experience Dimension; Visitor Behavior.

1. Introduction

1.1. Research Background

In the context of the booming cultural tourism, museums have transformed from traditional cultural relic collection institutions to important venues for cultural identity construction. According to the statistics of the National Cultural Heritage Administration, in 2024, the number of visitors to museums in China reached 1.23 billion, an increase of 78.6% compared to 2020, among which young visitors under the age of 35 accounted for more than 60% [7]. This phenomenon of "museum fever" reflects the public's urgent demand for cultural identity. However, existing research mostly focuses on the educational function of museums or the tourism experience, with insufficient exploration of the intrinsic connection with cultural identity.

1.2. Research Significance

Theoretical Level: Expand the research perspective of cultural psychology in museum tourism and construct an influence path model of "experience dimension-cultural identity".

Practical Level: Provide operational suggestions for museums to enhance cultural identity through tourism experience design, and help the living inheritance of cultural heritage.

2. Literature Review

2.1. Research Status of Museum Tourism

Foreign scholars like Smith (2021) propose that museum tourism has the characteristics of "spatiotemporal narrative", realizing the intergenerational transmission of cultural memory through the situational presentation of cultural relics [1]. In domestic research, Li Hua (2022) based on the 4E experience theory, points out that museums need to shift from "exhibit-centered" to "visitor-centered", and strengthen the integration of emotional (Emotion) and thinking (Education) experience [2].

2.2. Research Status of the Construction Mechanism of Cultural Identity

Hofstede (2020) believes that cultural identity is an individual's cognitive and emotional attachment to the culture of the group to which he belongs, and is affected by various factors such as the social environment and educational background [3]. Wang Fang's doctoral dissertation in 2023 shows that cultural contact in the tourism field can significantly improve individuals' cultural confidence index, among which the effect of museums is particularly obvious due to its authoritative narrative characteristics [4].

2.3. Existing Deficiencies

Existing research has three shortcomings: (1) mostly qualitative descriptions, lacking quantitative analysis; (2) not distinguishing the difference in the impact of different experience dimensions; (3) insufficient attention to emerging tourist groups such as Generation Z.

3. Research Design

3.1. Research Hypotheses

Based on the experience economy theory, the following hypotheses are proposed:

H1: The immersive experience of museum tourism positively affects visitors' cultural identity.

H2: Educational experience positively affects visitors' cultural identity.

H3: Interactive experience positively affects visitors' cultural identity.

3.2. Research Methods

Questionnaire Survey: A convenient sampling method was used to distribute questionnaires to 600 visitors in the Guangdong Provincial Museum, Zhaoqing Museum, and Foshan City Museum. A total of 552 valid questionnaires were collected, with an effective recovery rate of 92%. The questionnaire includes: demographic variables (age, education, visit frequency, etc.); experience dimension scale (18 questions, Cronbach's $\alpha = 0.89$); cultural identity scale (10

questions, adapted from Phinney’s cultural identity scale [9]).

In-depth Interviews: 20 visitors from different age groups were selected for semi-structured interviews lasting 30-45 minutes to assist in verifying the quantitative results.

3.3. Data Processing

Descriptive statistics, reliability and validity analysis, and multiple regression analysis were performed using SPSS 26.0, and structural equation models were constructed using AMOS 24.0.

4. Research Results

4.1. Sample Characteristic Analysis

This study distributed 600 questionnaires and collected 552 valid questionnaires, with an effective recovery rate of 92%. The sample characteristics are as follows:

Age Distribution: The main body is young groups, with 18-25 years old accounting for 41.8% (231 people), 26-35

years old accounting for 34.2% (189 people), and groups over 36 years old together accounting for 24%. This is consistent with the trend of “tourists under the age of 35 accounting for more than 60%” in the statistics of the National Cultural Heritage Administration [7], reflecting the trend of youngization in museum tourism.

Educational Structure: Undergraduate and below accounted for 59.2% (327 people), and master’s degree and above accounted for 40.8% (225 people), indicating that the tourists’ educational background covers a wide range, but the participation of high-educated groups is relatively high.

Visit Frequency: Nearly half of the tourists (50.0%, 276 people) visited museums 2-3 times, 35.9% (198 people) visited only once, and 14.1% (78 people) visited 4 times or more, indicating that high-frequency visitors are still a minority, and museums need to further enhance user stickiness. The analysis of sample characteristics is listed in Table 1.

Table 1. Analysis of Sample Characteristics

| Variable | Category | Number of people | Proportion (%) |
|------------------------|----------------------------|------------------|----------------|
| Age | 18 to 25 years old | 231 | 41.8 |
| | 26 to 35 years old | 189 | 34.2 |
| | 36 to 45 years old | 87 | 15.8 |
| | 46+ years old | 45 | 8.2 |
| Educational background | Bachelor’s degree or below | 327 | 59.2 |
| | Master’s degree or above | 225 | 40.8 |
| visit frequency | once | 198 | 35.9 |
| | 2 to 3 times | 276 | 50.0 |
| | 4 or more times | 78 | 14.1 |

4.2. Correlation Between Experience Dimensions and Cultural Identity

Through Pearson correlation analysis (Table 2), it is found

that the three dimensions of museum tourism experience are significantly positively correlated with cultural identity ($P < 0.01$):

Table 2. Pearson Correlation Coefficient Table

| Variable | Immersion | Education | Interactivity | Cultural identity |
|-------------------|-----------|-----------|---------------|-------------------|
| Immersion | 1 | 0.682** | 0.543** | 0.476** |
| Education | - | 1 | 0.721** | 0.532** |
| Interactivity | - | - | 1 | 0.615** |
| Cultural identity | - | - | - | 1 |

Note: ** indicates $P < 0.01$

The correlation coefficient between immersion and cultural identity is 0.476, indicating that immersive exhibitions can stimulate visitors’ cultural emotional resonance.

The correlation coefficient between education and cultural identity is 0.532, indicating that the knowledge transmission function plays an important role in the construction of cultural cognition.

The correlation coefficient between interactivity and cultural identity is the highest (0.615), confirming the key position of interactive experience in the formation of cultural identity.

In addition, there is a strong correlation between the different experience dimensions (e.g., the correlation coefficient between educational value and interactivity is 0.721), indicating that the three dimensions are interrelated and jointly influence the museum tourism experience.

4.3. Results of Multiple Regression Analysis

Taking cultural identity as the dependent variable and immersion, education, and interactivity as independent variables for multiple regression analysis (Table 3).

Table 3. Regression Model Coefficients Table

| Independent variable | Dependent variable: Cultural identity | |
|----------------------|---------------------------------------|-----------------|
| | β value | t value |
| Immersion | 0.215** | 3.872 |
| Education | 0.283** | 5.126 |
| Interactivity | 0.421** | 7.654 |
| R^2 | 0.586 | $F=127.36^{**}$ |

The results show that:

The standardized regression coefficient ($\beta=0.421$, $t=7.654$, $P<0.01$) of interactivity experience is the largest, indicating that it has the most prominent positive impact on cultural identity, verifying hypothesis H3;

Educational experience ($\beta=0.283$, $t=5.126$, $P<0.01$) and immersive experience ($\beta=0.215$, $t=3.872$, $P<0.01$) also have a significant impact on cultural identity, supporting hypotheses

H1 and H2;

The model determination coefficient $R^2=0.586$, indicating that the three experience dimensions can explain 58.6% of the variation in cultural identity, and the model fitting effect is good ($F=127.36$, $P<0.01$).

4.4. Impact Path of Experience Dimensions on Cultural Identity

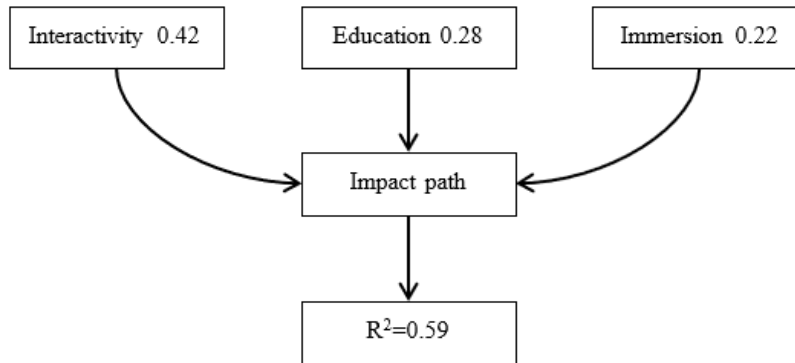


Figure 1. The Impact Path from Experience Dimensions to Cultural Identity

The structural equation model (Figure 1) further reveals the mechanism of action of experience dimensions:

The path coefficient from interactivity to cultural identity is 0.42, education to cultural identity is 0.28, and immersion to cultural identity is 0.22, which is consistent with the results of regression analysis, once again confirming the core position of interactive experience.

The overall explanatory power of the model $R^2=0.59$, indicating that the impact of experience dimensions on cultural identity has strong empirical support.

The research results show that the sense of immersion, educational value, and interactive experience in museum tourism can significantly enhance visitors' cultural identity. Among these, the interactive experience has the most significant impact, providing a quantitative basis for museums to optimize their cultural dissemination functions.

5. Discussion

5.1. Core Role of Interactive Experience

The research finds that interactive experience has the most significant impact on cultural identity, which is consistent with Zhang (2021)'s "participatory cultural production" theory. Activities such as AR cultural relic interaction and manual intangible cultural heritage experience in museums allow visitors to transform from passive receivers to co-creators of cultural meaning. This embodied cognitive process effectively strengthens cultural identity.

5.2. Analysis of Intergenerational Differences

Interviews show that Generation Z visitors (18-25 years old) pay more attention to digital interactive experiences, while middle-aged visitors (36-45 years old) pay more attention to the historical interpretation of exhibits. This suggests that museums need to design differentiated experience projects for different age groups, such as developing VR historical scenes for young groups and adding expert guide services for middle-aged groups.

5.3. Practical Implications

Scenographic Exhibition: Drawing on the design of the "spatiotemporal corridor" of the Metropolitan Museum of Art in New York, construct immersive cultural scenes through sound, light, electricity, and dynamic effects.

Digital Innovation: Develop a cultural relic AR interactive APP to realize the experience closed loop of "scanning code recognition - virtual dialogue - knowledge test".

IP Derivative Development: Transform cultural relic elements into trendy toys, cultural and creative foods, etc., to extend the penetration of cultural identity in daily life.

In addition to the aforementioned scene-based displays, digital innovations, and IP derivative developments, museums can also focus on the following aspects to enhance visitors' cultural identity:

Storytelling and Emotional Resonance: Through vivid explanations and multimedia presentations, museums can tell the historical stories behind cultural relics, evoking emotional resonance among visitors and deepening their understanding and identification with the culture.

Community Participation and Collaboration: Establishing partnerships with local communities, schools, and cultural groups to jointly organize cultural events or workshops, allowing visitors to participate in the creation and dissemination of culture, thus fostering a stronger sense of cultural belonging.

Ongoing Evaluation and Feedback: Regularly assessing the tourism experience in museums and collecting visitors' feedback to adjust exhibition content and activity designs based on the evaluation results, ensuring that cultural needs of visitors are continuously met.

6. Conclusion

This study shows that the immersion, education, and interactivity of museum tourism experience can significantly enhance visitors' cultural identity, among which interactivity experience has the strongest impact. The innovations of this research are: (1) constructing a quantitative research model of museum tourism and cultural identity; (2) revealing the

cultural experience preferences of Generation Z visitors. In the future, we can further explore the impact differences of different types of museums (such as science and technology museums, art museums) and the continuous impact of long-term visit behavior on cultural identity.

This study not only reveals the significant impact of museum tourism experiences on visitors' cultural identity, but also provides specific operational recommendations for museums to optimize their cultural dissemination functions. By implementing strategies such as scenario-based displays, digital innovations, and IP derivative developments, museums can effectively enhance visitors' cultural identity and promote the living inheritance of cultural heritage. In addition, this study found that tourists from different generations have distinct preferences in cultural experiences, which suggests that museums should consider the characteristics of their target audiences when designing tourism experiences and offer differentiated cultural products and services. Future research can further explore how museums can meet the cultural needs of different visitor groups through precise marketing and personalized services, as well as the long-term impact of repeated visits on cultural identity.

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