A study of the impact of digital transformation on the microtourism experience

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Abstract: With the transformation of national tourism demand to diversification, experience and leisure, the micro-travel industry, which is characterized by short distance, short duration and high frequency, has been expanding. At the same time, the innovation of science and technology has also driven the cultural and tourism industry to undergo digital transformation. Therefore, it is of great significance to study how to enhance tourists' micro-travel experience in the context of digital transformation. This paper plans to take the theory of co-creation experience as the basis, combined with the S-O-R theoretical model, to construct the relationship model of micro-travel scene, co-creation experience and behavioral intention under digital transformation, to empirically analyze the path relationship among the three, and to provide empirical research for further enhancing tourists' micro-travel experience.

Keywords: Digital transformation; Microtourism; Tourism experience.

1 Introduction

Since entering the 21st century, tourism demand and forms of tourism have been changing along with the development of the Internet, the national leisure consciousness has been raised, and tourism demand has been transformed into diversification, experience and leisure. In today's diversified era, more travelers tend to personalized, contemporary and participatory in-depth experience, no longer satisfied with the horseback tour, but want to go deep into the attractions and cities to experience a different culture and life. Under the influence of the common factors such as the change of tourism demand and purpose, micro-tourism with the "background" of local, peripheral, and short-distance self-driving tours has become an important choice to meet the daily tourism and leisure needs of nationals and to release the pressure of life.

In the context of the global scientific and technological revolution, the state's support for "Internet + Tourism" has been further strengthened, and digital technology has not only become an important driver for the transformation and upgrading of the tourism industry, but also an important support for the future development of the culture and tourism industry. Zhan Lin believes that digitalization can flexibly display tourism resources in multiple aspects, with video, music, images and other ways of expression, so that the tour content is richer and more flexible, so that tourists can choose the place to play at will through the fragmentation of time, providing convenience for tourists' micro-travel.[1]

With the increasing demand of tourists, scholars have begun to focus on the discussion of tourists' travel experience in smart tourism. He Ning proposed that by virtue of the successful construction of the value co-creation model in the digital construction of culture and tourism, it

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can boost the future development of the tourism industry, effectively enhance the core competitiveness of the culture and tourism industry, thus realizing the in-depth integration between digital technology and the culture and tourism industry.[2]Hudson revealed that social interactivity affects the sense of immersion, satisfaction and loyalty in virtual tourism. As far as the tourism industry is concerned, the creation of tourism scenes is an important way for tourist destinations to attract tourists and improve the quality of tourist experience.[3]

Therefore, this paper selects the Wukang Building in Shanghai's "Architecture Readable" microtour as a case study, analyzes the co-creative experience of the public tourists, tries to clarify the influence mechanism of the microtour scene on the co-creative experience of the public tourists, shapes the value of the co-creative atmosphere under the digital transformation, encourages the subjects to actively participate in the interactive process, and really experience more in the microtour, and puts forward constructive suggestions to increase the participation of all the people in the microtour.

2 Research Hypothesis

2.1 "Architecture Readable" microtour scenarios and co-creation experiences

Babin suggests that service scenarios can achieve the effect of evoking emotions, which act to generate experiences and determine value, thus prompting consumer behavior; Zhang Hong suggests that interactive scenarios are an important driver of value co-creation after summarizing and analyzing the literature on value co-creation. After combing the literature on co-creation experience.[4] Chen Si-Wei suggests that scene factors will have an impact on tourists' co-creation experience, and that the way of interactive platform, service methods and characteristics, basic services, and service quality will all affect the co-creation experience.[5] Based on this, this paper argues that the "Architecture Readable" microtour scene, as an external environmental stimulus, will have an impact on the co-creative experience of the public tourists during the whole process of microtour, and this paper puts forward the following hypotheses in conjunction with the content of the study:

H1: "Architecture Readable" micro-travel scenarios have a significant positive impact on co-creation experiences

H1a: Architectural scenes have a significant positive effect on the activation experience

H1b: Architectural scenes have a significant positive effect on immersive experiences.

H1c: Architectural scenes have a significant positive effect on interactive experiences.

H1d: Community scenes have a significant positive effect on the activation experience.

H1e: Community scenes have a significant positive effect on immersion experience

H1f: Community scenes have a significant positive effect on interactive experience

H1g: Intelligent services have a significant positive impact on activation experience

H1h: Intelligent services have a significant positive impact on immersion experience

H1i: Intelligent services have a significant positive impact on interactive experience

H1j: Cross-border integration has a significant positive impact on activation experience

H1k: Cross-border integration has a significant positive impact on immersion experience

H1l: Cross-border integration has a significant positive impact on interactive experience.

2.2 Co-creative experiences and behavioral intentions

Qiu Mengyao concluded through empirical analysis that tourists' participation in value co-creation (information exchange, cooperative behavior, and interpersonal interaction) positively affects tourists' intention to revisit.[6] Meng constructed a model of the influence of co-creation experience on revisit intention based on the theory of planned behavior by taking home stay as an example.[7] Chunfeng Li studied the relationship between tourism experience and behavioral intention in cultural and creative parks based on value co-creation, and the results showed that value co-creation plays a positive role in the relationship between unique experience and behavioral intention. Based on this, this paper argues that the co-creation experience of the public tourists will positively influence their behavioral intention during the whole process of the "Architecture Readable" microtour, and puts forward the following hypotheses:

H2: Co-creation experience has a significant positive effect on behavioral intention

H2a: Activation experience has a significant positive effect on behavioral intention

H2b: Immersion experience has a significant positive effect on behavioral intention

H2c: Interactive experience has a significant positive effect on behavioral intention

2.3 "Architecture Readable" microtour scenarios and behavioral intention

Ju Fanzhe constructs structural equations to prove that tourist attractions, scenic facilities, scenic environment and management services have significant positive effects on tourists' behavioral intention.[8] Yang Yingying found that the cultural symbols in the urban literary space would directly affect tourists' behavioral intention, and the spatial environment and social experience would have an impact on tourists' behavioral intention through the intermediary effect of scene dependence and scene identity. To sum up, tourism scenes have an important impact on tourists' behavioral intention. [9]Based on this, the following hypotheses are proposed in relation to the research theme of the micro-travel scene of "architecture Readable" in this paper:

H3: "Architecture Readable" microtour scenarios have a significant positive effect on behavioral intentions

H3a: Architecture scenarios have a significant positive effect on behavioral intention.

H3b: Community scenarios have a significant positive effect on behavioral intention.

H3c: Intelligent service has a significant positive effect on behavioral intention

H3d: Cross-border integration has a significant positive effect on behavioral intention.

3 Conceptual Model

The underlying theoretical framework model of this study is the Stimulus-Organism-Response Model (SOR), which was first proposed by Mehrabian & Russell (1974), i.e., the S-O-R model.

Based on the theoretical foundation of SOR and the relationship between the variables, this study attempts to construct the relationship between the micro-travel scenario, co-creation experience and behavioral intention of "Architecture Readable".

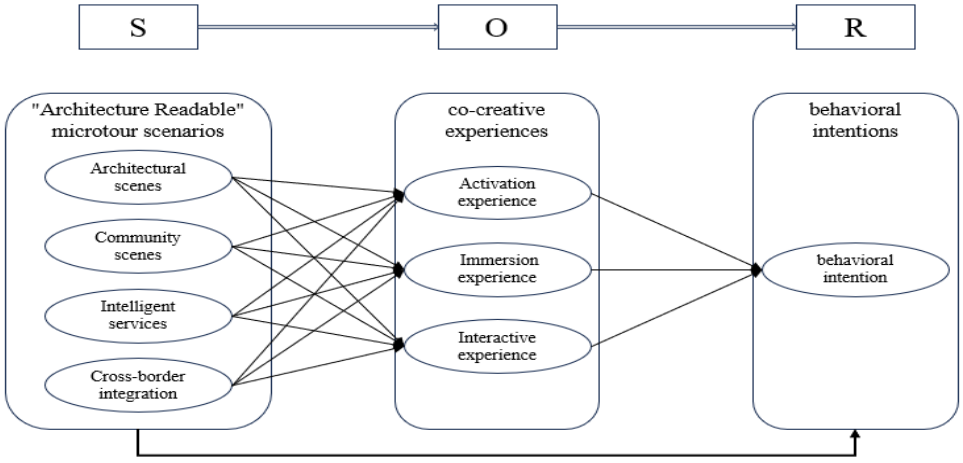

Figure 1. Conceptual model diagram

4 Questionnaire Design

4.1 Official distribution and collection of questionnaires

The questionnaire distribution and sample sampling of this thesis are divided into two ways: online and offline. Offline through the field to the Wukang Building, Wukang Road - Anfu Road neighborhood, Huaihai Middle Road, randomly selected for viewing, touring, taking pictures of the public tourists to fill out the questionnaire in a face-to-face manner. In addition, through the questionnaire star electronic questionnaire form, directed to find the people who have visited and toured Shanghai architecture to fill in the questionnaire. A total of 436 questionnaires were issued, and after screening and eliminating incomplete answers, 383 valid questionnaires were finally obtained, with a validity rate of 87.8%.

4.2 Reliability analysis

In this paper, Cronbach's alpha reliability coefficients were used to test the consistency of the questionnaire study variables in each measurement question item. As shown in table 1 below, the overall scale Cronbach's alpha coefficient is 0.951, which is close to 1 and has high reliability; the Cronbach's alpha coefficient for each variable is greater than 0.8, which has good reliability.

Table 1. Overall Scale Reliability Tests

meters	Number of questions	Cronbach's α	Total Cronbach's α
"Architecture Readable" microtour scenarios	26	0.918	0.951

Co-Creation Experience	13	0.904
behavioral intention	3	0.819

5 Structural Equation Modeling Analysis

5.1 Fitting of the structural equation model

In this study, AMOS was used for structural equation modeling, and X2/DF, GFI, NFI, CFI, NNFI, IFI, and RMSEA were used to test the overall model fit. As can be seen in Table 2 below, the model fit indicators in this study all meet the requirements of the fitness index, indicating that the model's fit indicators are acceptable.

Table 2. Model Fit

fitness index	standard of judgment	value	Satisfaction
X^2	-	1042.328	
DF	-	794	
X^2/DF	<3	1.313	fulfillment
GFI	>0.8	0.887	fulfillment
RMSEA	<0.10	0.029	fulfillment
NFI	>0.8	0.890	fulfillment
CFI	>0.9	0.971	fulfillment
NNFI（TFl）	>0.9	0.969	fulfillment
IFI	>0.9	0.971	fulfillment

5.2 Structural equation modeling path analysis and hypothesis testing

From the path coefficients in Table 3, we can see that, the "building-readable" microtour scenario partially positively affects the co-creation experience. The standardized coefficient of community scene on immersion experience is 0.085, P>0.05, indicating that the two do not have significant positive correlation effect; the standardized coefficients of wisdom service on activation experience and immersion experience are 0.067 and 0.085, respectively, and the P-value is greater than 0.05, indicating that the wisdom service does not have significant positive correlation effect on activation experience and immersion experience. Except for this, the rest of the results show positive correlation.

Table 3. Standardized path coefficient significance level analysis table

trails	Std. Estimate	Estimate	S.E.	C.R.	P	Test results

activation experience	<-- -	architectural scenes	0.296	0.331	0.083	4.006	***	valid
immersion experience	<-- -	architectural scenes	0.379	0.482	0.092	5.233	***	valid
interactive experience	<-- -	architectural scenes	0.229	0.297	0.085	3.503	***	valid
activation experience	<-- -	community scenes	0.156	0.18	0.068	2.658	0.008	valid
immersion experience	<-- -	community scenes	0.085	0.111	0.073	1.521	0.128	no valid
interactive experience	<-- -	community scenes	0.247	0.331	0.072	4.577	***	valid
activation experience	<-- -	intelligent services	0.067	0.078	0.081	0.962	0.336	no valid
immersion experience	<-- -	intelligent services	0.085	0.112	0.088	1.272	0.203	no valid
interactive experience	<-- -	intelligent services	0.168	0.225	0.085	2.662	0.008	valid
activation experience	<-- -	cross-border integration	0.248	0.278	0.074	3.759	***	valid
immersion experience	<-- -	cross-border integration	0.22	0.279	0.08	3.486	***	valid
interactive experience	<-- -	cross-border integration	0.245	0.318	0.077	4.133	***	valid
behavioral intention	<-- -	activation experience	0.141	0.156	0.051	3.088	0.002	valid
behavioral intention	<-- -	interactive experience	0.187	0.179	0.046	3.864	***	valid
behavioral intention	<-- -	immersion experience	0.275	0.269	0.046	5.784	***	valid
behavioral intention	<-- -	architectural scenes	0.182	0.225	0.07	3.233	0.001	valid
behavioral intention	<-- -	community scenes	0.113	0.144	0.054	2.672	0.008	valid
behavioral intention	<-- -	cross-border integration	0.217	0.269	0.061	4.403	***	valid
behavioral intention	<-- -	Intelligent services	0.155	0.199	0.062	3.197	0.001	valid

5.3 Mediation effect test

In this paper, the Bootstrap method was used to conduct the mediation effect test, and the results are shown in Table 4.The Bootstrap sample size is set at 1000 and the mediation effect test is executed. If the Bootstrap confidence interval does not contain 0, the corresponding indirect effect exists. The confidence interval in the path of intelligent service to behavioral intention is [-0.018, 0.065], including 0, indicating that the indirect mediation effect does not exist; the confidence interval in the path of community scene to behavioral intention is [-0.014, 0.082], including 0, indicating that the immersive experience does not have an indirect mediation effect in the path relationship between the community scene and behavioral intention; the confidence interval in the path relationship between intelligent service to Behavioral Intention path with a confidence interval of [-0.023, 0.099], including 0, indicating that there is no indirect mediating effect of immersion experience in the path relationship of Smart Service to Behavioral Intention. Other than that, indirect mediating effects are present.

Table 4. Mediation effect test results

Trails	Estimate	95%CI		P
		Lower	Upper	
architectural scenes→activation experience→behavioral intention	0.052	0.015	0.121	0.001
community scenes→activation experience→behavioral intention	0.028	0.003	0.081	0.02
Intelligent services→activation experience→behavioral intention	0.012	-0.018	0.065	0.349
cross-border integration→activation experience→behavioral intention	0.043	0.011	0.099	0.004
architectural scenes→immersion experience→behavioral intention	0.129	0.067	0.22	0.001
community scenes→immersion experience→behavioral intention	0.03	-0.014	0.082	0.174
Intelligent services→immersion experience→behavioral intention	0.03	-0.023	0.099	0.243
cross-border integration→immersion experience→behavioral intention	0.075	0.024	0.148	0.006
architectural scenes→interactive experience→behavioral intention	0.053	0.018	0.107	0.001
community scenes→interactive experience→behavioral intention	0.059	0.025	0.11	0.001
Intelligent services→interactive experience→behavioral intention	0.04	0.007	0.102	0.017
cross-border integration→interactive experience→behavioral intention	0.057	0.021	0.118	0.001

6 Conclusion and Discussion

Through the analysis of structural equation modeling, three path relationships are derived in this paper. The first path is "'Architecture readable' microtourism scene - co-creation experience", which indicates that the experience perception of public tourists on "architecture readable" microtourism scene has a positive and direct influence on the co-creation experience during the microtourism. The second path is "'Architecture readable' microtourism scene - co-creation experience", which indicates that the public visitors' perception of the "architecture readable" microtourism scene has a positive and direct effect on the co-creation experience during the microtourism. The second path is "co-creation experience-behavioral intention", which indicates that the public tourists' co-creation experience in the microtourism process positively and significantly affects behavioral intention. The third path is "the 'architecture readable' microtourism scene - behavioral intention", which indicates that the perception of the "architecture readable" microtourism scene positively influences the behavioral intention of the public tourists. suggests that public tourists' perceptions of the "architecture readable" microtourism scene positively affect their behavioral intention. All dimensions of the "architecture readable" micro-travel scene have a significant positive effect on behavioral intention, in which the cross-border integration has the greatest influence, followed by the architectural scene, so in order to improve the behavioral intention of public tourists, we should focus on building the architectural scene and improving the level of cross-border integration.

At the same time, through the mediating effect, it can be found that the "architecture readable" micro-travel scene significantly affects the behavioral intention through the co-creation experience. This suggests that the "architecture readable" microtourism scene can influence the behavioral intention of public tourists through the co-creative experience they generate in the microtourism process.

Overall, this study found the path relationship of "urban microtourism scene - co-creation experience - behavioral intention". This suggests that the better the visitors perceive the urban microtour scene, the stronger their co-creation experience and the stronger their behavioral intention after the tour. By strengthening the construction of the "architecture readable" microtourism scene and enhancing the co-creation experience of the tourists during the whole process of microtourism, the behavioral intention of the tourists can be promoted, and the participation in the "urban microtourism" project in Shanghai can be expanded.

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