Research on Product Innovation of Tourism Enterprises under the Background of Aging
——Based on Experimental Analysis

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ABSTRACT

How to adapt to the development status of an aging population, develop innovative tourism products and improve the tourism experience of elderly tourists have become an important issue for tourism enterprises to be solved. Based on this, this paper constructs a structural equation model to explore the impact of tourist-to-tourist interactions on subjective well-being. Using SPSS and AMOS software to analyze the data of 416 elderly tourists in Chengdu, China, it is found that the interaction between elderly tourists directly or indirectly affects subjective well-being. Well-being and the value of tourism experience have a partial mediating effect on it. The tourism companies can innovate tourism service products in terms of improving employee service skills, creating a good tourism atmosphere, and guiding the interactive behavior of elderly tourists.

Keywords-senior group tourists; interaction between tourists; experience value; subjective well-being

1. INTRODUCTION

The world is gradually entering the stage of development of an aging society and will have a profound impact on the world economy. Studies have shown that by 2043, the global elderly population will reach 1.89 billion, accounting for 20.3% of the total population[1]. Under the background of the aging society, how to improve the management level of tourism enterprises and provide better tourism products and high-quality service experience for the elderly tourists have become an important issue in theoretical research and industrial practice. Based on this, the subjective well-being of elderly tourists in group tourism is explored based on the theoretical perspective of tourist interaction with Chinese elderly tourists as the object, and then provides a reference for the product development and management of tourism enterprises.

2. THEORY AND ASSUMPTIONS

2.1 Interactions and subjective well-being

The subjective well-being can judge the quality of an individual's quality of life[2], which combines emotion and life satisfaction[3]. According to psychological research, when people lack communication with others, they will feel less happy[4]. This article defines the interactions between tourists as various forms of verbal or nonverbal communication and behavioral interactions between tourists actively or passively with other tourists in the process of group travel[5]. The interaction behavior among elderly tourists is divided into four dimensions: etiquette violation, interference and dispute, friendly conversation, suggestion and help[6-7]. Chen Ye and others clearly pointed out that the benign interaction between tourists in group tourism can promote the social connection of tourists, thereby enhancing the subjective well-being of tourists[5]. Based on this, this article proposes the following hypotheses:

H1: The tourist-to-tourist interactions have a

significant impact on tourists' subjective well-being.

2.2 Interactions and experience value

The essence of the tourism experience is the needs of tourists. This article selects a hierarchical experience value theory[8], which includes three dimensions: functional experience value is the basic value form that consumers obtain in the experiential process. The emotional experience value reflects the changes in customer emotions and feelings and the experience results of subjective feelings. The social experience value pays attention to the meaning of the relationship between customers and society to a certain extent[7]. In tourism activities, tourists create more experience value for tourists by enjoying the fun of communicating with others and sharing happiness[9-10]. When there is obvious interference and conflict in the customer group, it will often bring extremely negative experiences to other customers and affect the value of customer experience[11]. The friendly communication and interactions help to reduce the sense of helplessness and insecurity of tourists in an unfamiliar environment, and improve the cognitive experience of tourists[12]. Based on this, this article proposes hypotheses:

H2: The violation of etiquette has a significant impact on the experience value of tourists.

H3: The interference and disputes have a significant impact on the experience value of tourists.

H4: The friendly conversation has a significant impact on the experience value of tourists.

H5: The suggestions and assistance have a significant impact on the experience value of tourists.

2.3 Experience value and subjective well-being

Huang Xiang believes that the tourism experience is subjective well-being and a subjective psychological experience in a tourism situation[13]. The tourism experience is an important factor that affects the subjective well-being of tourists. When the experience level of tourists is higher than their psychological expectations, tourists will subjectively believe that tourism activities are valuable and improve their own well-being. Based on this, this article proposes the following hypotheses:

H6: The functional experience value has a significant positive impact on subjective well-being.

H7: The emotional experience value has a significant positive impact on subjective well-being.

H8: The social experience value has a significant positive impact on subjective well-being.

Based on the above analysis, a research hypothesis model is constructed (Figure 1).
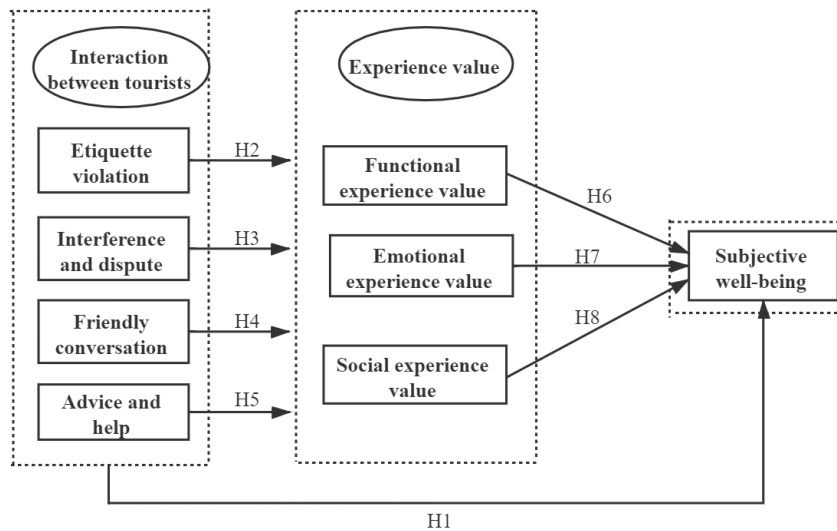

Fig.1 Research hypothesis model

3. RESEARCH DESIGN

3.1 Questionnaire design and variable measurement

Refer to Nicholls[14], Jiang Ting[7,11,15] and other related research for the interactive behavior scale among elderly tourists, and refer to Xie Yanjun[16], Jiang

Ting[7,11] and other researches for the experience value dimension items, subjective well-being refers to Jiang Prize[17], Zhang Yan[18] and other researches. For the basic information, please refer to research by Yao Zhaobin[19].

3.2 Formal research

The survey site was Dujiangyan Scenic Area,

Chengdu. A total of 492 questionnaires was collected. Invalid questionnaires were excluded, and 416 valid questionnaires were obtained. The effective rate of questionnaires was 84.6%. The surveyed elderly tourists have a similar proportion of men and women. More than 80% of them are 60-75 years old. The overall education level is not high, and nearly half are junior high school and below. The monthly income is generally not low, and more than half are more than 3, 500 yuan, of which more than 5, 000 yuan 47.4%; in addition, the vast majority of the interviewees believed that they were in good health, and two-thirds of them participated in a group tour. On the whole, the distribution of survey samples is reasonable and can meet research needs.

4. EMPIRICAL ANALYSIS

4.1 Reliability and validity test

The overall α value of the scale is 0.836, and the α values of the latent variables and the observed variables are all greater than 0.7, indicating that the reliability of the questionnaire is acceptable. Carrying out confirmatory factor analysis, the standardized factor loads of all measurement items are higher than 0.5, the AVE values of 9 latent variables are all greater than 0.5, and the CR values are all greater than 0.7, indicating that the measurement items have good convergence validity.

4.2 Structural equation model analysis

The AMOS 23.0 software was used for structural equation model analysis, and demographic variables were used as control variables. Data analysis showed: $x2 = 1480.027$, DF=594, p< 0.01, $x2/ DF = 2.492$ less than 3, IFI=0.936, CFI= 0.935, TLI=0.923, both greater than 0.9, PGFI = 0.681, PNFI = 0.758, both greater than 0.5, indicating that the model fit is ideal; RMSEA=0.060, less than 0.08, considering the large number of index variables, the fit is acceptable. The path test results of the model showed that 15 of the 23 hypotheses were supported (Table 1).

TABLE 1 PATH TEST OF STRUCTURAL EQUATION MODEL

Hypothetical	Path relationship	P-value	Standardized path coefficient	Support
H1a	Subjective well-being ← Etiquette violation	0.541	-0.127	No
H1b	Subjective well-being ← Interference behavior	***	-0.048	Yes
H1c	Subjective well-being ← Struggle for execution	***	-0.152	Yes
H1d	Subjective well-being ← Friendly conversation	0.117	0.073	No
H1e	Subjective well-being ← Advice and help	0.235	0.044	No
H2a	Functional experience value ←Etiquette violation	***	-0.057	Yes
H2b	Emotional experience value ←Etiquette violation	***	-0.078	Yes
H2c	Social experience value ←Etiquette violation	***	-0.076	Yes
H3a	Functional experience value ←Interference behavior	***	-0.037	Yes
H3b	Emotional experience value ←Interference behavior	***	-0.125	Yes
H3c	Social experience value ←Interference behavior	***	-0.184	Yes
H4a	Functional experience value ←Struggle for execution	***	-0.597	Yes
H4b	Emotional experience value ←Struggle for execution	***	-0.513	Yes
H4c	Social experience value ←Struggle for execution	***	-0.560	Yes
H5a	Functional experience value ←Friendly conversation	0.796	0.014	No
H5b	Emotional experience value ←Friendly conversation	***	0.030	Yes
H5c	Social experience value ←Friendly conversation	***	0.240	Yes
H6a	Functional experience value ←Advice and help	0.235	0.087	No
H6b	Emotional experience value ←Advice and help	0.177	0.075	No
H6c	Social experience value ←Advice and help	0.446	0.050	No
H7	Subjective well-being ← Functional experience value	0.137	0.374	No
H8	Subjective well-being ← Emotional experience value	***	0.994	Yes
H9	Subjective well-being ← Social experience value	***	0.264	Yes

It can be analyzed from the following three aspects: (1) Interfering behavior and contention for execution have a direct negative impact on subjective well-being, while etiquette violation and friendly conversation affect

subjective well-being through experience value. Advice and help have no effect on subjective well-being. (2) Violation of etiquette, interfering behavior, and striving for execution have a significant negative impact on the three levels of experience value. The friendly conversation has a significant positive impact on emotional and social experience value, but has no effect on functional experience value. Significantly. (3) Emotional and social experience value have a significant positive impact on subjective well-being, while the effect of functional experience value on subjective well-being has not been verified.

4.3 Test of mediation effect

The process program is used to test the mediating effect of the tourism experience value, and the Bootstrap(=5000) method is used to test the significance of the mediating effect[20], and the demographic variables are used as control variables. The etiquette violation and friendly conversation affect subjective well-being through the experience value. Interfering behaviors and striving for execution affect subjective well-being through the experience value on the one hand, and directly affect the subjective well-being on the other hand.

5. CONCLUSIONS AND LIMITATIONS

This article takes Chinese elderly tourists as the research object, and explores the relationship among tourists' interaction, experience value, and subjective well-being during the travel process, and obtains the following conclusions:

(1) The interfering behaviors and striving for execution with high interaction intensity among elderly tourists have a significant negative impact on subjective well-being. This shows that no matter how good the tourism products and services are, interference and competition among elderly tourists will weaken the sense of belonging, respect and self-realization of elderly tourists, thereby reducing their subjective well-being and travel experience.

(2) The etiquette violations and friendly conversations in interaction among elderly tourists influence subjective well-being through experience value. On one hand, it responds to the research of Jiang Ting and Zhang Feng[7]. On the other hand, it explores the importance of experience value in the interaction between elderly tourists. The positive or negative interactions of tourists will affect the value of tourism experience, thereby enhancing or reducing the subjective well-being of elderly tourists.

(3) The suggestion and help behaviors in the interaction of the group tourists have no significant impact on the value of the tourism experience and the

subjective well-being. This is significantly different from the existing research results[7]. This conclusion indicates that compared with other age groups, elderly tourists may be more cautious in team interpersonal communication because of concerns about various risks.

This research also has certain shortcomings. Since the selection of research samples is mainly concentrated in the Chengdu area of China, but different countries have significant differences in the cultural models, national characteristics, etc., whether the conclusions of this article are applicable to other countries and regions still need to be further explored.

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