

# Research of the Attractiveness Factors of World Horticultural Exposition Based on Evaluation Grid Method

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**Abstract.** The purpose of the research is to discuss tourists' experience behaviour and preference towards World Horticultural Exposition, and identify attractive quality factors that affect the tourism planning of World Horticultural Exposition. This research regards the Yangzhou World Horticultural Exposition in 2021 as study object, summarizes the attractive factors of World Horticultural Exposition by qualitative method and intensive communications with tourists, as well as establishes and analyses the evaluation structure, which provides a reference for subsequent tourism planning and design improvement of World Horticultural Exposition. The attractiveness of the World Horticultural Exposition is summarized, 3 original attractiveness factors (Audio Visual Effect, Social Emotion, Interactive Experience), 11 specific attractiveness factors, 12 abstract attractiveness factors are counted.

**Keywords:** tourist demand; attractiveness factor; World Horticultural Exposition; Evaluation Grid Method

## 1 Introduction

The World Horticultural Exposition is a form of urban construction. With the change of time and social progress, the function and role of the World Horticultural Exposition is more extensive and profound. The World Horticultural Exposition will not only become a showcase for new materials and technologies in the horticulture industry and landscape design industry, but also constantly push the boundaries of the industry to promote exchanges and lead the direction of discovery. For the host city, the role of the World Horticultural Exposition for the city is multiple. It can promote urban renewal, relieve the pressure of various aspects of the city, and promote the development of tertiary industries [1].

At present, there are many studies on the World Horticultural Exposition, but most of them are conducted from the perspective of architectural design, planning design, landscape design, greening design, urban ecosystem, and sustainable development concept of the horticultural exposition, and there are few studies for the demand of tourists. It is important to cut into the angle of tourists' demand and conduct demand research, which in turn has great significance and reference value for the tourism planning of the World Horticultural Exposition, the improvement

of service design and the planning and design of the subsequent World Horticultural Exposition [2].

This research regards the Yangzhou World Horticultural Exposition in 2021 as study object, summarizes the attractive factors of World Horticultural Exposition by qualitative method and intensive communications with tourists, as well as establishes and analyses the evaluation structure, which provides a reference for subsequent tourism planning and design improvement of World Horticultural Exposition.

## 2 Discussion of references

### 2.1 World Horticultural Exposition

World Horticultural Exposition is a professional international fair of the highest level, approved by the International Horticultural Association, an international horticultural and floral industry organization, and recognized by the International Exhibition Bureau, which features the scientific and technological achievements in gardening and horticulture from all over the world, and enhances the culture and communication among countries, integrating cultural achievements and scientific and technological achievements[3]. The 2021 Yangzhou World Horticultural Exposition will set up more than 80 international and domestic exhibition gardens, such as Constellation Garden(as shown in Figure1), Yangzhou Pavilion(as shown in Figure2), American Pavilion and Russian Pavilion, and build a number of thematic venues. The planning area is about 3,500 mu, of which 1,800 mu is the original part of the provincial garden and 1,700 mu is the new area of the World Horticultural Exposition. During the exhibition period of Yangzhou World Horticultural Exposition, the China Pavilion and Biyun Village will hold a variety of intangible cultural exhibition series activities, creating the three sections of intangible cultural heritage display including “China Pavilion Exhibition”, “City Theme Week” in Jiangsu Province and “Garden and Flower Events” [4].

Xu Meng’s study points out that the overall principle of environmental landscape design for the World Horticultural Exposition is to clarify and analyze the relationship among the World Horticultural Exposition, the service area and visitors on the basis of an all-round and holistic understanding of them, requiring not only to analyze the environment, but also to examine its participants and users. However, there are few domestic and international studies on the needs of users and participants, and additional research is to be carried out by subsequent researchers [5].



Fig. 1. Constellation Garden



Fig. 2. Yangzhou Garden

## 2.2 Attractiveness Engineering

The word "Attractiveness" is called *Miryoku* in Japanese. Charm belongs to user's subjective preference, and mainly comes from their value judgment system, such system grows out of user's sensorial reception, psychological decision-making, sociology and artistic evaluation. With the purpose of "creating technology and knowledge of attractive product and space", Ujigawa initiated the research on charm with several scholars in 1991. The method aims to explore the similarity or difference on the basis of comparison between object A and B through personal interview, and to generalize the individual properties of target objects [6]. Sanui divides such research method into two steps, the first step is to express likes or dislikes for target object evaluation; while the second step is to clarify the answer by additional questions, and specifically analyse the attractive factors that affecting user's preferences by collecting responses of interviewees, then to sort out the relevant network diagram. This research method is called "Evaluation Grid Method (EGM)" [7].

## 2.3 Evaluation Grid Method

EGM conducts interviews with highly involved groups, comparing the various characters in pairs on the basis of user's actual behaviour, and summarizes the reliable evaluation and suggestion. This method can be used to integrate the corresponding relationship between abstract feelings and specific conditions which is elusive under normal conditions. During the research, EGM provides a specific and theoretical method to analyse the attractive factors of objects. In order to perceive user's feelings towards object charm, it adopts intensive interview and produces stimulation within the scope of subject, and compares the extent of preferences as well as enables participants to experience the obvious difference, so to understand the original concept from participants towards subject, and further guides the participants to make specific analysis on their original concept, then builds connections between the abstract concept and detailed description of the original concept, so to achieve the network diagram of participant and the product. The procedures of EGM are as follows: firstly, the participant should express likes or dislikes towards the object during the evaluation of target object. Secondly, the answers or meanings of participant should be clarified through additional questions, and the answers will be sorted out, so to specifically analyse the attractive factors that affecting user's preferences and makes the relevant network diagram [8].

## 3 Research methods

In order to clarify the different needs of tourists for World Horticultural Exposition, and to identify the attractiveness quality factors that affect World Horticultural Exposition tourism planning, this study explores the attractiveness experience attributes of World Horticultural Exposition by using the EGM evaluation grid method of attractiveness engineering, which provides the basis for subsequent questionnaire design. The evaluation grid method is used for in-depth interviews. The main subjects are 9 tourists who have been to the 2021 Yangzhou World Horticultural Exposition, including 5 males and 4 females. They are 18 to 35 years old. The EGM interview method is divided into three parts: "original reason", "specific reason", and "abstract reason". The original reason is to ask the abstract feeling from the back up, and to point down

the specific items. For example: Question interviewee “What is the reason that the 2021 Yangzhou World Horticultural Exposition is attracting you?” The interviewee answered for the first time, "I think the environment scene of the 2021 Yangzhou World Horticultural Exposition is well," then the "audio visual effect" is extracted as the original reason of attractiveness, and then from the top down, according to the original reason, "do you think the environment scene is attractive?" If the interviewee answers “there are many flowers in the World Horticultural Exposition and they are very nice”, then, "there are many flowers in the World Horticultural Exposition and they are very nice" is extracted as the specific factor of attractiveness; finally, continue to ask the interviewee, " What do you think the audio visual effect attracts you that many beautiful flowers in the World Horticultural Exposition? Can you describe the specific feeling?" If the interviewee replies "I feel beautiful after watching", then the "beautiful" is extracted as an attractiveness abstraction factor. Through the collation of interview content, and the construction of its evaluation grid, finally, the evaluation grid of the Yangzhou World Horticultural Exposition attractness factors is summarized (as shown in Figure3).

## 4 Analysis and discussion

### 4.1 Yangzhou World Horticultural Exposition attractiveness factors evaluation grid

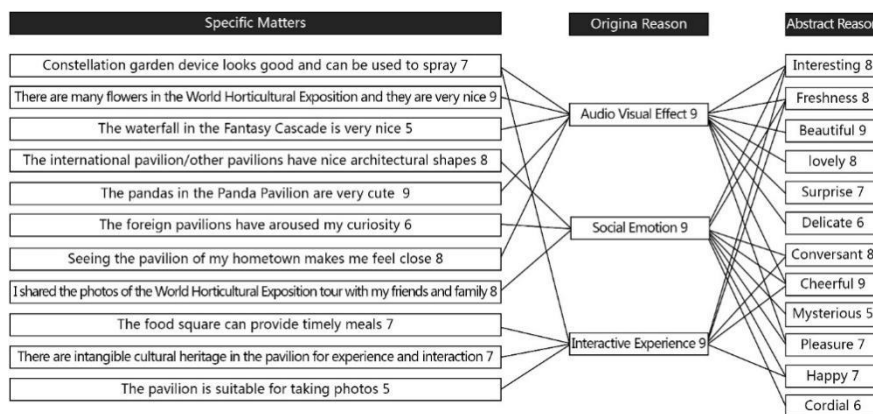


Fig. 3. Yangzhou World Horticultural Exposition attractiveness factors evaluation grid

### 4.2 Analysis of results

To analyze the EGM Hyponymy Project (specific factors); since the number of interviews is 9 people, projects with scores of more than half are adopted, that is, projects with scores 5 or more. The most attractive to tourists is the project (9 times) is drawn: There are many flowers in the World Horticultural Exposition and they are very nice, the pandas in the Panda Pavilion are very cute; the international pavilion/other pavilions have nice architectural shapes, seeing the pavilion of my hometown makes me feel close, I shared the photos of the World Horticultural Exposition tour with my friends and family (8 times), constellation garden device looks good and can be used to spray, the food square can provide timely meals, there are intangible cultural heritage in the pavilion for experience and interaction (7 times), the foreign pavilions

have aroused my curiosity (6 times),the waterfall in the Fantasy Cascade is very nice, the pavilion is suitable for taking photos(5 times); projects with scores 5 to 8 in the interview also have some value in meeting the personal preferences of players.

To analyze the EGM Hypernym Project (abstract reason); since the number of interviews is 9 people, projects with scores of more than half are adopted, that is, projects with scores 5 or more. The most attractive to tourists is the project (9 times) is drawn: Beautiful, cheerful; these abstract reasons are the most attractive to tourists to meet their personal preferences; interesting, freshness, lovely, conversant (8 times), surprise, pleasure, happy (7 times), delicate, cordial (6 times), mysterious (5 times); projects with scores 5 to 8 in the interview also have some value in meeting the personal preferences of players.

## 5 Conclusion

Based on above research, the charm evaluation structure will be established after collecting interview feedback, and three original charm factors including audio-visual effect, social emotions and interactive experience, 11 specific charm factors and 12 abstract charm factors will be sorted out. In addition, through interview data, it is found that Audio Visual Effect, Social Emotion and Interactive Experience are most recognized by the interviewees in the original attractiveness factor. In the specific attractiveness factors, 5 factors including “there are many flowers in the World Horticultural Exposition and they are very nice”, “the international pavilion/other pavilions have nice architectural shapes”, “the pandas in the Panda Pavilion are very cute”, “seeing the pavilion of my hometown makes me feel close” and “I shared the photos of the World Horticultural Exposition tour with my friends and family”, are mentioned the most. Among the abstract attractiveness factors, interesting, freshness, beautiful, lovely, conversant, cheerful are the most frequently mentioned. It can be seen that the above attractiveness factors are the main driving force for tourists to become sticky to the 2021 Yangzhou World Horticultural Exposition.

The research has a certain theoretical guiding role for the follow-up World Horticultural Exposition and even urban construction. In order to satisfy tourists’ needs and their preference, as well as achieve more complete research conclusion, it is expected to enlarge the number and expand the age range of EGM participants, so to provide reference for subsequent questionnaire design by using the charm factor’s evaluation structure of World Horticultural Exposition.

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