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Research Article

Allocation and Optimization of Public Sports Facilities Resources in International Tourist Cities Based on Fuzzy Multicriteria Decision-Making Algorithm

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With the improvement of the economic level and the continuous improvement of people living standards, international tourism has become a major boom. International tourism can not only improve the local economic income but also improve the construction of local facilities. Not only does the development of a country tourism depend on the local tourism attraction, but also the economic situation of country is more critical for tourism. The arrangement of sports facilities is also key to the popularity of international tourist cities and to increase tourism, because public sports facilities can not only enhance the physical exercise of tourists but also display local characteristics in the form of sports facilities. The decisions on public sports facilities are based on local government policies and other factors such as travelers preferences, which requires reference to the layout of public sports facilities in successful international tourist cities. This research uses fuzzy multicriteria decision-making algorithm and neural network technology to conduct decision-making and prediction research on the relevant factors of public sports resource allocation in international tourist cities. The research results show that the fuzzy multicriteria algorithm has high accuracy for decision-making and prediction of public sports resource setting. The maximum error of multicriteria algorithm and neural network method in predicting the relevant factors of public sports setting is only 2.45%, and this part of the error comes from the needs of tourists. The smallest error is only 1.34%. The fuzzy multicriteria algorithm has an accuracy of more than 95% for decision-making and prediction of public sports facilities, which is beneficial to decision makers of sports settings in international tourist cities.

1. Introduction

International tourism has become a tourism boom in today society, not only because of the improvement of people living standards, but also because of the improvement of people quality of life [1, 2]. International tourism can not only enjoy the exotic scenery but also experience the exotic scenery and human feelings. If an international tourist city wants to improve the influence, it needs a complete range of public cultural facilities [3]. For the development of tourism, income from the service industry is one of the main sources of economic income for international tourist cities. Policy sovereigns of international tourist cities need to reasonably grasp the number of tourists and the development of scenic spots, and only in this way will they attract more tourists to join [4, 5]. With people pursuit of health, not only should international tourist cities make reasonable arrangements of scenic spots, but also the arrangement of public sports facilities is a key point of the task. Public sports facilities can not only deepen travelers understanding of the country culture, but also provide travelers with a place to exercise. This can also provide some support for the popularity of international tourist cities [6]. In today society, if an international tourist city wants to improve its tourism status, the layout of public sports facilities and rational decision-making are also the keys to becoming an internationally

renowned tourist city. Once an international tourist city has a public sports setting, it is also a form of increasing the popularity of international tourism.

The layout and decision-making of public sports facilities in international tourist cities are often different from the layout of public sports facilities in general cities. For a city, the main purpose of public sports facilities is to allow local residents to participate in physical exercise to improve their physical fitness. Its selection is mainly based on factors such as the local economic level and the needs of residents, and it needs to consider its own international influence [7, 8]. For international tourist cities, the layout and decision-making of public sports facilities must be based on various aspects such as differences in preferences and participation of people from all over the world [9]. Public sports facilities in international tourist cities also need to consider displaying the local culture of the country through public sports facilities as much as possible [10]. For example, for the well-known international tourist city of Sao Paulo, Brazil, it needs to display the football design as much as possible, because the main sports activity in Brazil is football. However, the designers of sports facilities in Sao Paulo also need to be considered comprehensively according to the source of pretourism, which can appropriately add other types of sports settings. For example, Chinese tourists may be a country where more tourists are imported, which requires proper arrangement of public sports facilities for table tennis [11, 12]. At the same time, it also needs to consider the mobility of public sports equipment, which means that this activity is as easy as possible to participate in it. The decision-making and layout of the public sports setting in an international tourist city is a difficult task, and there are many factors that need to be considered [13]. A reasonable layout and decision of public sports facilities will affect the number of tourists in international tourist cities, and then it will affect the tourism economic income of international tourist cities [14, 15].

This research will consider fuzzy multicriteria algorithms and neural network methods to assist the decision-making and prediction tasks of public sports facilities in international tourist cities [16, 17]. The fuzzy multicriteria method can effectively extract the characteristics of the influencing factors of the public sports facilities of the successful cases, and it can also find the correlation between the data. The neural network method can make effective predictions according to the decision results of the fuzzy multicriteria algorithm, which can help the decision makers of international tourist cities to make decisions about public sports facilities [18]. There are many international tourist cities in the world, and their public sports facilities have many successful cases according to their local customs and local sports development. The traditional manual processing method will consume more time and human and material resources, and it is also guaranteed to find reasonable public sports facilities according to the needs of international tourists and local characteristics [19, 20]. Fuzzy multicriteria decision-making method is also a product of big data technology, which can make decisions on public sports facilities according to the sports characteristics of international tourist cities, the economic level of cities, and the needs of international tourists. This method is also a kind of intelligent decision-making method. Neural network technology can make corresponding predictions on the decision-making content of these public sports facilities, which is also a feasible way.

This paper mainly uses fuzzy multicriteria decision-making algorithm and neural network method to study the relevant factors of public sports facilities in international tourist cities, which are beneficial to the decision makers of international tourist cities. This research mainly consists of five parts. The first part introduces the importance of public sports settings in international tourist cities and the decision-making role of fuzzy multicriteria method in public sports tourism settings. Section 2 mainly shows the related research status of public sports facilities. The application of fuzzy multicriteria algorithm and neural network technology in decision-making of public sports facilities were shown in Section 3. Section 4 analyzes the accuracy of fuzzy multicriteria method and neural network method in predicting public sports facilities in international tourist cities, and Section 5 is the relevant summary part of this research.

2. Related Work

Public sports facilities will affect the participation of national fitness, and national fitness has become an important research direction in academia. Numerous studies have been conducted on public sports facilities by many researchers. Chen et al. [21] put forward a strategy for college students to open the resources of sports facilities to the problems of the small number of sports facilities and outdated equipment in urban communities. In addition, they used the AHP and Delphi law to establish a related model and conducted research on the factors that affect the impact of college students' public sports equipment. The research results show that improving hardware equipment and improving management sports mode are beneficial to the utilization of open sports facilities. This research provides a good reference value for improving the utilization of urban public sports facilities. Ma et al. [22] found that although the enthusiasm and participation rate of national fitness have been greatly improved, the lack of community sports facilities has become an important reason for the development of this trend. They used expert consultation and fuzzy comprehensive evaluation methods to study the feasibility of incorporating open sports in colleges and universities into the national fitness system. They use the fuzzy comprehensive evaluation method to convert residents opinions into objective evaluation data. The results of the study show that the open sports facilities in colleges and universities have a positive impact on improving the participation rate of national sports, which will guide the integration of sports facilities in colleges and universities into national sports facilities. Wei et al. [23] believed that the rapid development of coastal tourism can promote the development of coastal sports tourism industry. They analyzed that the development of coastal sports tourism industry will promote the development of coastal economy, which will also promote the active participation of all people in marine-themed sports. It can combine the advantages of coastal resources to develop more sports modes. Liu et al. [24] believed that the

construction effect of sports public sports facilities will affect the promotion of sports. They constructed a nonlinear Bayesian algorithm to study the effectiveness of sports facilities in promoting the development of public sports. They use IoT technology to study the feasibility of improving such a public service system based on the lack of available service products and imbalances in investment and distribution in the Chinese movement. Mou et al. [25] used information technology and Internet technology to study the relevant factors of sports information resources. They used the OpenStack cloud platform to study the related factors of public sports, which will realize the big data technology to analyze the related factors of sports. The research results show that the development of the sports industry will promote the development of the economy, which in turn promotes the construction of public sports facilities, and the pull rate reaches 1.056%. Liu et al. [26] have found that national fitness has become a hot direction. They used the data envelopment analysis method DEA and Tobit technology to establish a university evaluation model. It mainly analyzes the utilization efficiency of the model for motion resources. At the same time, they established the relationship between sports resources according to the input-output indicators of colleges and universities. The research results show that cities should make full use of the existing sports facilities resources in colleges and universities, which will help to improve the utilization of public sports resources and it will increase the amount of residents' participation in sports. Zhang et al. [27] found the problems of long retrieval time and high integration errors in the sports tourism system. They designed a sports advice service system by combining the Internet of Things technology and edge computing technology. It calculates the similarity of sports tourism and the characteristics of the environment. The research results show that the edge computing method can integrate the relevant factors of sports tourism resources, which has reduced the retrieval time of sports management system. From the above literature review, it can be seen that most researchers have used traditional methods to conduct relevant research on urban sports facilities and sports resources, but fewer researches used fuzzy multicriteria methods to conduct decision-making research on public sports facilities. This study combines fuzzy multicriteria decision-making algorithm and neural network technology to study the related factors of public sports facilities in international tourist cities.

3. The Introduction to Fuzzy Multicriteria Algorithms and Neural Network Algorithms

3.1. The Introduction of Fuzzy Multicriteria Algorithms. Fuzziness and certainty are two opposite meanings, and fuzziness describes uncertainty [28, 29]. Multicriteria decision-making is another term for finite-scheme multiobjective decision-making. Multicriteria decision-making refers to a decision-making scheme that is selected from conflicting and incommensurable data sets [30]. Multicriteria can be divided into multiattribute decision-making and multiobjective decision-making [31, 32]. Generally speaking, there is often a certain similarity between data, which makes it difficult to directly perform effective classification tasks on the attributes of these data [33]. For the decision-making of public sports facilities in international tourist cities, it is equivalent to a multiobjective decision-making task. The multiobjective criterion needs to consider two or more objectives at the same time. Fuzzy multicriteria decision-making algorithms include analytic hierarchy process (AHP), fuzzy comprehensive evaluation, and data envelopment analysis (EDA). Combining the characteristics of the relevant factors of public sports facilities in this study, the AHP method was selected for the decision-making task of public sports facilities in international tourist cities. The multicriteria algorithm can effectively classify the relevant factors of public sports settings, and this classification can be effectively classified under the criteria.

3.2. The Introduction to AHP for Designing the Decision-Making System of Public Sports Facilities. This study mainly uses the AHP method to classify the relevant data of public sports facilities in international tourist cities, and then it will use the neural network method to predict the AHP results. AHP algorithm is a kind of multicriteria algorithm, which can effectively classify the relevant factors of the layout of public sports facilities. This will have certain guiding significance for the construction of public sports facilities. AHP method is one of the main algorithms of fuzzy multicriteria decision-making algorithm used in this study. Figure 1 shows the system design of the fuzzy multilevel decision-making algorithm for public sports facilities. First, the system needs to collect data on sports facilities in public sports venues. These data will be processed by a fuzzy multilevel decision-making algorithm, and the AHP decision-making algorithm is used in this study. These data will be divided into four factors: tourist participation, tourist demand, sports development status of international cities, and economic level of international cities, which will be the key factors affecting public sports facilities in international tourist cities. The data processed by the AHP algorithm will be input into the neural network system in the form of an input layer, which will help designers to assist the design of public sports facilities related construction decisions. In Figure 1, the neural network method will generate the predicted value of public sports facilities in international tourist cities, and the backpropagation mechanism of the neural network method will use the loss function as the error between the predicted value and the actual value.

Fuzzy multicriteria algorithm will include analytic hierarchy process (AHP), fuzzy synthesis algorithm, etc. In this study, AHP algorithm is selected as the decision-making algorithm used in decision-making of public sports facilities. Figure 2 shows the workflow of the AHP algorithm in the construction of public sports facilities. AHP algorithm mainly includes three layers: target layer, criterion layer, and scheme layer. The target layer is the goal that this research wants to achieve, which is also the top layer of the AHP algorithm. The designer will set certain rules according to the research goals, which is the purpose of the criterion layer. The scenario layer is the method of studying the decisions to

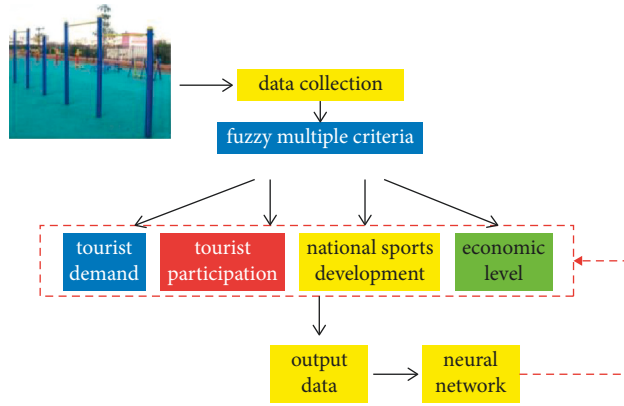

Figure 1: The system design of fuzzy multilevel decision algorithm for public sports facilities.

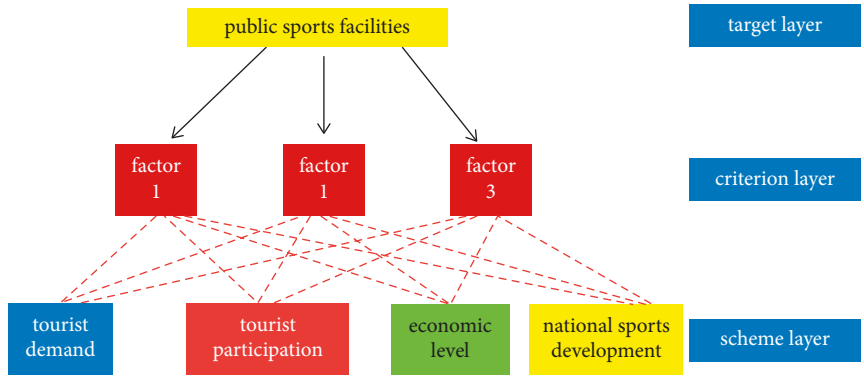

Figure 2: The workflow of AHP algorithm.

be presented. This study will be divided into four scenarios according to the factors of public sports facilities in international tourist cities.

Before the judgment matrix solves the weights, the consistency check is a more critical step. When the positive and negative matrix is a consistent matrix, it must satisfy equation (1). And equation (2) shows the method of consistency check. Equation (3) shows the calculation process of the consistency ratio CR. Generally speaking, the value of CR needs to satisfy CR < 1. Only in this condition can the consistency of the matrix be judged to meet the requirements. Otherwise, the judgment matrix needs to be corrected.

$$CI = \frac{\lambda_{\max} - n}{n - 1}, \tag{1}$$

$$\lambda_{\max} > n, \tag{2}$$

$$CR = \frac{CI}{RI}. \tag{3}$$

If CR > 1, this requires adjusting the scale of each row of the matrix. Equation (4) shows the calculation process of the weight vector of the matrix obtained by the arithmetic mean method. Equation (5) shows the calculation process of the weight vector of the matrix obtained by the geometric mean method. This requires opening each component of the new vector n times.

$$\omega_i = \frac{1}{n} \sum_{j=1}^{n} \frac{a_{ij}}{\sum_{k=1}^{n} a_{kj}}, \tag{4}$$

$$\omega_i = \frac{\left(\prod_{i=1}^{n} a_{ij}\right)^{1/n}}{\sum_{k=1}^{n} \left(\prod_{i=1}^{n} a_{kj}\right)^{1/n}}. \tag{5}$$

3.3. The Introduction of Neural Network Algorithms. The four factors of public sports facilities in international tourist cities are tourist demand, tourist participation, the sports development status of international cities, and the economic level of international cities. After passing through the AHP algorithm, these will be input to the input layer of the neural network for processing. The four factors of public sports settings in international tourist cities have obvious spatial characteristics, and the temporal correlation between them is relatively weak. CNN is suitable for processing data of this type. Figure 3 shows the operation flow of the neural network method. Neural network technology can not only predict the future play trend of public sports facilities, but also map the nonlinear relationship between input and output. Designers can learn complex relationships based on the successful cases of international urban public sports facilities, and it can map the relationship between input and output well. In this study, the input layer of the neural network is the output data of AHP, which mainly include tourist demand, tourist

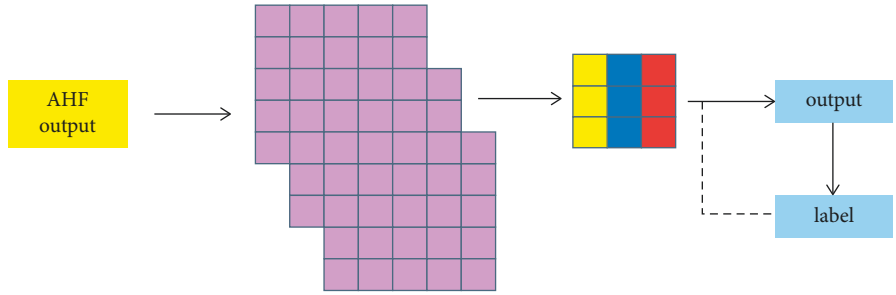

Figure 3: The detailed calculation process of the neural network.

participation, the economic level of international tourist cities, and the sports development status of tourist cities. This data will be fed into the input layer of the neural network. Then, these data can be fed into the convolution layer, pooling layer, and activation function. These output data will help designers make rational decisions. The multicriteria algorithm will output the relevant factors of the layout of public sports facilities in tourist cities, and these data will be used as the input of the CNN algorithm. The output of the CNN algorithm will adopt the layout scheme of public sports facilities. In Figure 3, the larger squares represent the operational flow of the convolutional layers. The smaller squares represent the computational flow of the pooling layer. The pooling layer samples the features.

Neural network algorithms have obvious advantages in mapping nonlinear data, mainly due to the role of activation functions. The activation function can process the data nonlinearly, and equation (6) shows the calculation method of the activation function.

$$S(x) = \frac{1}{1 + e^{-x}}. \tag{6}$$

The neural network model used in this study is the convolutional neural network. Convolutional neural networks can well map the nonlinear relationship between public sports facilities in international tourist cities, mainly thanks to the existence of convolutional layers. But the convolutional neural networks also have a basic perceptron structure. It is also mainly composed of two processes, forward propagation and backpropagation. Equations (7) and (8) show the weight calculation process in the forward and backward propagation of the neural network. This mainly involves the weight and paranoid derivation process.

$$E = \frac{1}{2}\sum_{k=1}^{m}\left[d_k - f\left(\text{net}\omega_k\right)\right]^2 = \frac{1}{2}\sum_{k=1}^{m}\left[d_k - f\left(\sum_{j=0}^{n}\omega_{jk}y_j\right)\right]^2, \tag{7}$$

$$\begin{aligned} E &= \frac{1}{2}\sum_{k=1}^{m}\left[d_k - f\left(\text{net}\omega_k\right)\right]^2 = \frac{1}{2}\sum_{k=1}^{m}\left[d_k - f\left(\sum_{j=0}^{n}\omega_{jk}y_j\right)\right]^2 \\ &= \frac{1}{2}\sum_{k=1}^{m}\left[d_k - f\left[\left(\sum_{j=0}^{n}\omega_{j\kappa}f\left(\sum_{j=0}^{q}u_{ij}\chi_i\right)\right)\right]\right]^2. \end{aligned} \tag{8}$$

In the calculation process of the neural network, it mainly involves two parameter quantities of weight and bias. Equation (9) shows the derivation of the weights. Whether it is a forward propagation or a backpropagation process, it will involve this derivation process.

$$\Delta\omega_{ji} = -\eta\frac{\partial E}{\partial\omega_{ji}}. \tag{9}$$

Bias is another main parameter, and the distribution of bias is also an optimization process. Equation (10) shows the derivation of the bias.

$$\Delta u_{ij} = -\eta\frac{\partial E\partial}{\partial u_{ij}}. \tag{10}$$

For the neural network, it will use the real value as the label value. The loss function is to solve the relationship of the error between the predicted value and the label value. Equation (11) shows the calculation process of the loss function, and the gradient will be continuously optimized according to the size of the loss function.

$$L = \text{MSE}\left(q^{\text{real}}, q^{\text{pre}}\right) = \frac{1}{nm}\sum_{k=1}^{N}\sum_{j=1}^{M}\left(q_{kj}^{\text{pre}} - q_{kj}^{\text{pre}}\right)^2. \tag{11}$$

There may be a certain lack of data on the relevant factors of public sports facilities in international tourist cities, and it may also be due to different characteristics that lead to large differences in data differences. Before using fuzzy multicriteria algorithm and neural network algorithm, data cleaning and data processing are necessary steps. Data cleaning will complete the missing data and uniformly process different data sets into the same matrix form. Data cleaning will complete the missing data. In the process of collecting urban public sports facilities, it will inevitably lead to the phenomenon of missing data. Data cleaning will fill these missing data with zeros. The processing of the data will process the data into a uniformly distributed data set, which will facilitate the operation of the algorithm. The normalized data preprocessing will be used in this study.

4. Result Analysis and Discussion

There have been many successful construction projects of public sports facilities in international tourist cities around the world. This study selected the data of the construction of

related public sports facilities in Sao Paulo, Brazil, as the research object. Fuzzy multicriteria algorithm includes AHP and EDA and other algorithms; this paper adopts AHP algorithm. This research is mainly divided into two processes. The first process is to use the AHP method to classify the relevant factors of public sports facilities for decision-making. Figure 4 shows the distribution of weight factors using fuzzy multiple criteria method. By showing the distribution of weight factors, it can be shown that the AHP method has better applicability when dealing with the data of public sports settings in tourist cities, and it is beneficial to the prediction task of the CNN method. If CR < 0.1, it means that this weight factor meets the decision classification requirements of public sports facilities. From Figure 4, it can be seen intuitively that the CR values of the influencing factors of the four public sports facilities are all less than 0.1, which means that the weight factors of these four factors all meet the calculation requirements of the AHP algorithm, and it can achieve better decision-making classification results. The largest weight factor value is 0.078, and this part of the larger weight factor is mainly derived from the needs of tourists. The needs of tourists are difficult to grasp for the construction of public sports facilities, mainly because the international tourist cities have a wide range of tourists, and the needs of tourists from different countries are very different. It is difficult for fuzzy multicriteria algorithms to capture these features. The minimum weight factor is only 0.0098. This value has largely met the requirements of the CR value.

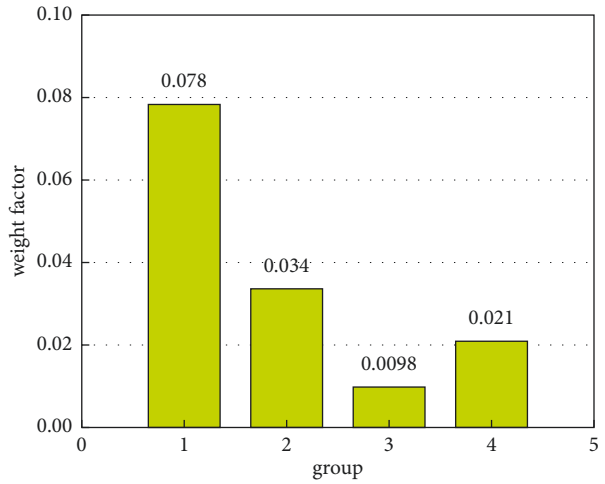

Figure 4: The distribution of weight factors using the fuzzy multiple criteria method.

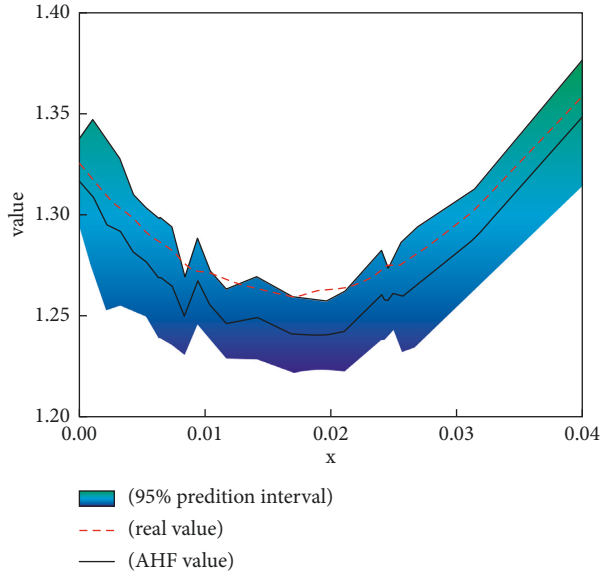

Figure 5: The uncertainty distribution using the fuzzy multicriteria method.

Fuzziness and certainty are two relative properties. The fuzzy multicriteria algorithm has certain uncertainty. Figure 5 shows distribution of weight factors using fuzzy multiple criteria method. The blue area represents the 95% confidence interval for the decision value, which indicates that the data within this interval is 95% confident. The 95% confidence level is a commonly used uncertainty assessment method, which can ensure that the model or data has sufficient confidence. The 95% confidence band is used as weighting factor evaluation in the public sports setting, which ensures the accuracy of the multicriteria algorithm. Overall, the data for public sports facilities in different locations have similar uncertainties. The AHP model has less uncertainty for the relevant data of public sports facilities, which shows that the AHP model has a relatively high credibility to complete the decision-making task of public sports facilities in international tourist cities. The uncertainty is relatively small in the middle area of the public sports field, and there is a relatively large uncertainty in the edge area of the field compared to the middle area. This further verifies the credibility of the AHP model in decision-making to classify public sports facilities. Even with large fluctuations in the data for public sports venues, the uncertainty here is still relatively small.

Figure 6 shows the cloud map of distribution error of public sports facilities. It can be seen from Figure 6 that the data prediction errors of the facilities of public sports venues are relatively small, and these errors are all within 3%. However, there are certain differences in the prediction error distribution of the facilities of public sports venues, which causes the uneven distribution of the prediction errors of the facilities of public sports venues. Generally speaking, the types of sports facilities in the middle area of public sports venues are relatively fixed, and there are some larger sports settings. However, there is a large difference in the types of sports facilities in the fringe area of the public sports field, so there is a large error here compared to the middle area of the public sports field. However, the prediction errors in the fringe areas of public sports venues are all within 3%, which is also an acceptable error for the prediction of public sports facilities in international tourist cities.

To further demonstrate the accuracy of the neural network approach in predicting public sports facilities in international tourist cities, Figure 7 shows the hotspot cloud map of distribution of public sports facilities. It can be seen

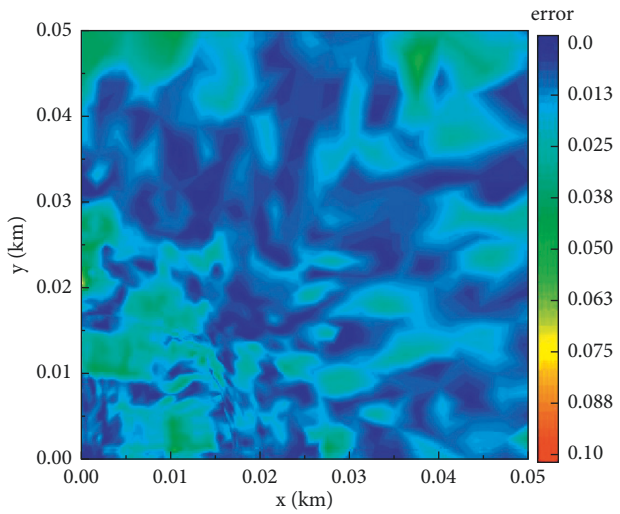

Figure 6: The cloud map of distribution error of public sports facilities.

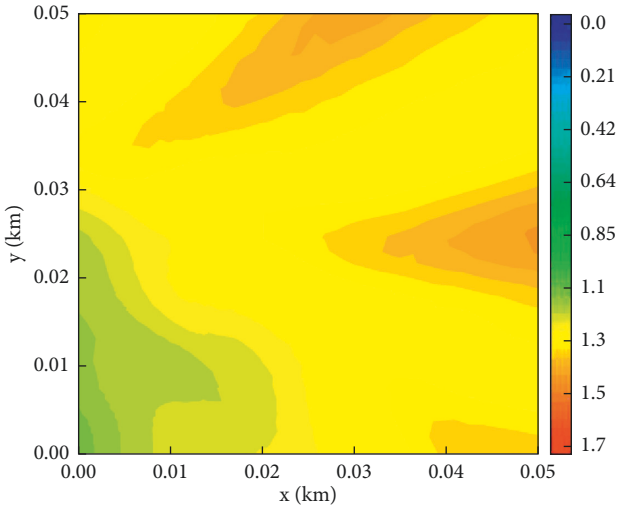

Figure 7: The hotspot cloud map of distribution of public sports facilities.

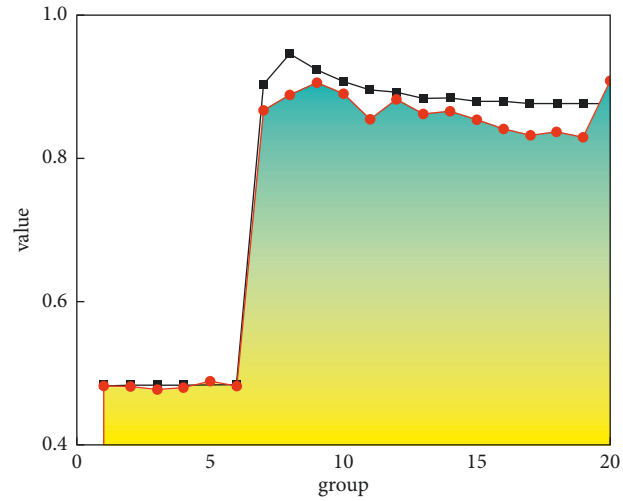

Figure 8: The predicted distribution of public sports facilities.

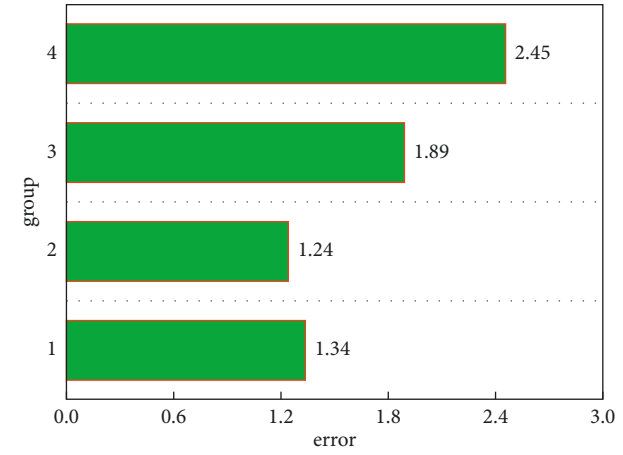

Figure 9: The histogram of forecast errors for public sports facilities.

from Figure 7 that the distribution of hotspots in the edge area of the public sports field is relatively high, which means that more public sports and sports facilities need to be arranged in this area, and this area requires more types of sports facilities. This is more in line with the actual layout principles of public sports venues. In the area of public sports venues, the hotspot is relatively low, which means that there are fewer types of sports facilities in this area, which may be football or basketball types of sports facilities. In general, the neural network method has a relatively feasible reliability in the decision-making method of public sports facilities.

Figure 8 shows the predicted distribution of public sports facilities. Tourist participation is a feature that changes strongly over time, and it is also a key evaluation indicator for public sports tourism facilities in international tourist cities. In Figure 8, the black curves represent the predicted values of factors associated with public sports settings. The red curve represents the actual value of passenger participation in the layout of public sports facilities. Overall, the predicted values for public sports facilities agree well with the data for actual Sao Paulo sports venues. Although there is a large gradient in the initial stage of public sports venues, the neural network method can predict public sports facilities well. Likewise, in the initial stages of public sports, the neural network approach has good predictive performance compared to the subsequent time periods. Although there is a large difference here in the subsequent stages of the development of public sports facilities, this difference is also an acceptable margin of error for managers of public sports facilities. Figure 9 shows the histogram of forecast errors for public sports facilities. This research mainly uses the AHP method and the neural network method to study the relevant factors of public sports facilities in international tourist

cities. The prediction errors of the four factors are relatively small, and the largest error is only 2.45%. This part of the error comes from the international tourists demand, which makes it more difficult to predict the international tourists demand. Therefore, the needs and preferences of tourists in each country are quite different. CNN can also better predict the factors of the economic development level of public sports facilities in international tourist cities. It has the smallest error, and the smallest prediction error is only 1.34%. For the participation of tourists, this part of the error is only 1.89%.

5. Conclusions

With the improvement of economic level and people living standards, people's enthusiasm for participating in international tourism has gradually increased. The international tourism model has become a research hotspot. Public sports facilities can not only increase the visibility of international tourist cities, but also promote the country history and culture in this way. The decision-making of public sports facilities in international tourist cities is very different from the layout and decision-making of public sports facilities in cities, and it needs to make effective decisions according to the needs and preferences of tourists from various countries. There are many influencing factors of public sports facilities in international tourist cities, which requires effective mining and prediction with the help of computer systems.

This study uses fuzzy multicriteria algorithm and CNN method to conduct decision-making and forecasting research on four factors of public sports facilities in international tourist cities. These four factors are mainly tourist participation, tourist demand, and sports development in international tourist cities and the economic situation of international tourist cities. This study adopts the AHP algorithm in the fuzzy multicriteria algorithm. For the decision-making research of AHP algorithm, the weight factor CR of the four factors is less than 1, and the maximum CR value is only 0.078, which shows that the AHP method has good performance in public sports facilities. The AHP algorithm has lower uncertainty in public sports facilities in either the middle region or both sides of the curve of public sports facilities. For the layout of public sports facilities, the CNN approach has been in good agreement with the actual data values. Larger errors mainly appear in the edge area of the layout of public sports facilities, and smaller errors mainly appear in the middle area of the layout of sports facilities. Overall, both the AHP method and the neural network method can guide the decision-making task of public sports facilities in international tourist cities well.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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