

Research on the Relationship between Tourists in Scenic Spots and the Benefits of Scenic Spots and Related Factors

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Abstract: With the progress of the times, people's spiritual life has gradually improved, and the way of travel has also changed a lot. From the original train, the group car, and then to the plane, people now love self-driving travel. Now more and more people choose self-driving travel, because self-driving travel can not only bring people a sense of safety, but also is fast and convenient, so private cars have gradually become the mainstream means of transportation. However, some related issues have gradually attracted the attention of the public. This article takes the Benxi Tourism Scenic Area as the research object, and focuses on the relationship between the decision-making of tourists and the revenue of the scenic area. The operation of the scenic area has driven some surrounding industries. In this industry The problem we can see is the decision-making problem of how to receive tourists in the scenic spot. Of course, what the tourism industry cares most is what the revenue of the scenic spot is related to, and how to help the scenic spot make the right decision. This article uses SPSS, MATLAB software for modeling, neural network, genetic algorithm, cluster analysis and other algorithms for analysis and simulation. Then discuss its rationality based on examples, and finally give a perfect decision-making plan for the scenic area manager.

Keywords: SPSS; MATLAB; Neural Network; Genetic Algorithm; Cluster Analysis, Private Car; Seasonal Tourism

1. Raising Question

Most tourists go to scenic destinations in the urban area (or surrounding areas) after Benxi City, and private cars are one of the main means of transportation. In the scenic area of Benxi, most passages separate the departure and arrival passages during the prosperous season. After arriving in Benxi, passengers will face two choices:

(A) Go to the scenic area and wait in line to leave the city. Private cars must wait in line at the designated "car storage pool", and enter the scenic spot according to the "first come, first come" line. The waiting time depends on the number of private cars in the queue, and a certain time cost is required.

(B) Enter the scenic spot directly. Private cars will pay for parking and may lose potential time.

The number of tourists arriving in a certain period of time and the number of vehicles already in the "car storage pool" are certain information that can be observed by tourists. Usually the decision-making of tourists is related to their personal experience judgment, such as the number of vehicles arriving in a certain season and time period and the number of possible tourists. If tourists want to queue directly to the designated "ride area" after arriving in Benxi, they will enter the scenic spot in order. The management personnel are responsible for "quantity in batches" to release into the "ride area", and at the same time arrange a certain number of tourists to Hu Liang. In reality, there are many deterministic and uncertain factors that affect tourists' decision-making, and their correlations are different, and their effects are also different.

Based on the actual situation, the project team established a mathematical model to study the following issues:

(1) Analyze and study the influencing factors of tourist decision-making factors, comprehensively consider the changing law of the number of tourists and the benefits of scenic spots, establish a tourist choice decision-making model, and give tourists' choice

strategies.

(2) Collect the relevant data of some domestic scenic spots and their areas, give the tourist's choice plan, and analyze the rationality of the model and its dependence on related factors.

(3) At certain times, there are often queues for self-driving tourists and walking tourists. There are two parallel lanes for "self-driving" in a scenic spot. How should the management department of the scenic spot set up "parking spots" and arrange for self-driving cars and tourists to ensure the safety of vehicles and tourists so that the overall driving efficiency is the highest.

(4) The revenue of the scenic spot is related to the number of self-driving cars and the number of tourists. The destinations of tourists are far and near. Private cars can return to the scenic spot many times to find a suitable place. The scenic area management department intends to give certain "priority" to certain self-driving cars, so that the income of each scenic area is as balanced as possible, and try to give a feasible "optimized" arrangement plan.

Problem analysis

Question 1: The first is to analyze and study the influence mechanism of factors related to tourists' decision-making, list as many situations as possible and explore the relevance and rationality between them, and then construct a decision tree to make it clear. The second is to comprehensively consider the changes in the number of airport visitors and the benefits of regional scenic spots, establish a tourist selection decision model, and give tourists a selection strategy. We can't get the number of tourists directly, so we can only estimate tourists from the information of scenic spots in previous years. This question is analyzed on the basis of considering the changing law of the number of tourists in the scenic spot and the profit relationship of the scenic spot. First of all, we have to limit all its information to only the change law of the number of tourists and the revenue of the scenic spot to construct a related model, and then consider that the number of tourists is directly related to the revenue of the scenic spot, so what affects the number of tourists is what we need to do next So we discussed the relevant factors, and finally got the tourist's choice strategy through the neural network model.

Question two: A very clear request is given that we must first collect relevant data about the Benxi area and its scenic spots, which means that we must first search for relevant data of Guanmenshan Forest Park, including the number of scenic spots, the status of tourists and the operating status of the scenic spots. . Then we have to verify the correctness of the decision-making model established in problem one through specific examples, and analyze its rationality and its advantages and disadvantages.

Question three: Under normal circumstances, in the peak season, most of the time in the Benxi Scenic Area will be crowded with tourists. In addition, if there is no good driving system and foothold, this will not only increase the waste of time, but also increase it. The personal safety and psychological burden of tourists. Because if there is no system, tourists will continue to walk through the two rows of lanes or walk their own nearest lane, then this is the best way to waste time. If the self-driving car is lined in, it will be difficult for him to get out. This is a bad solution for scenic management and tourists. If it is not handled properly, disputes and restlessness will still occur, which will further affect the conflicts between tourists and tourists, scenic spots and tourists, scenic spots and scenic spots management. Therefore, a model is needed to solve this important problem.

Now that there are two parallel lanes in the scenic spot, we need to assume that the model is built in a known scenic spot, and then set some variable limits, and then use the MATLAB software to perform genetic calculations on this model to obtain the optimal solution. Analyze its rationality.

Question four: The benefits of scenic spots are related to the number of tourists. The destinations of tourists are far and near. Private cars can return to the scenic spot many times to find a suitable place. The scenic area management department intends to give certain "priority" to certain self-driving cars, so that the income of each scenic area is as balanced as possible, and try to give a feasible "optimized" arrangement plan. The "optimization" here is a solution specifically for short-distance tourists.

2. Model establishment

2.1 Model assumptions

Assuming that all scenic spots are the same and operate at full load

Assuming all tourists are self-driving

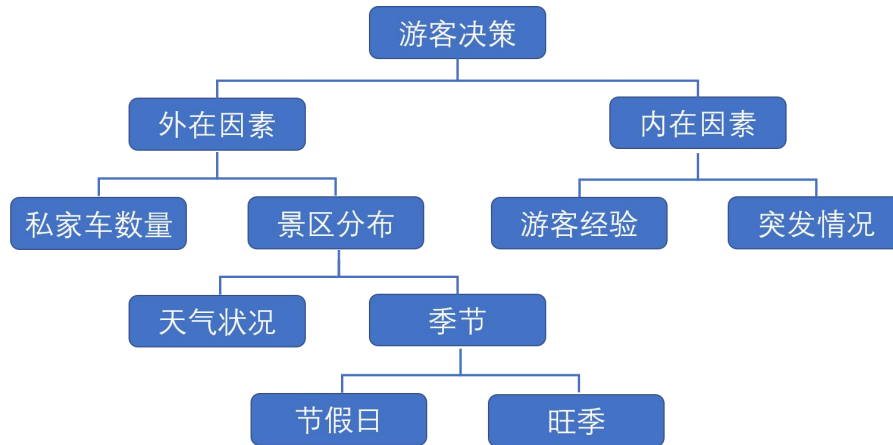
Assume that the total number of tourists does not change in the model

Assuming that the staff in the scenic area are in accordance with the rules and regulations, and there is no bias or excessive behavior

Assuming that the Guanmen Mountain Scenic Area has not been reconstructed or expanded recently, it is determined that its floor area and parking area remain unchanged

Model building and solving

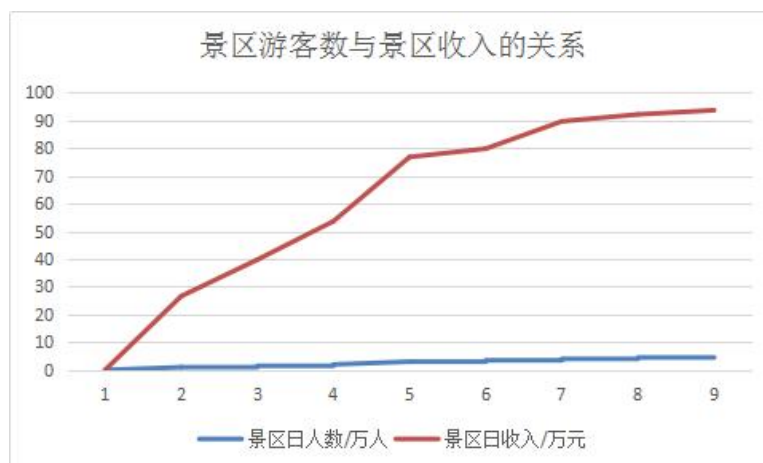
The influence mechanism model of tourist decision-related factors



2.2 Tourist choice decision-making model

First, define the variables and limit the weather to be good. There is no sudden situation in scenic spots or roads, and tourists themselves know that there is no experience gap in some industry rules. Self-driving and walking distances are the same, and tourists enter the scenic spot. At this time, the only variables are the change in the number of tourists and the change in the income of the scenic spot. Then we assume that the change in the number of tourists is the independent variable x , and the income change of the scenic spot is the dependent variable y , according to the chart data analysis. (This chart is based on the data derived from the different income changes in the root scenic area due to the number of tourists on a certain day, so there are some errors.)

Daily number of scenic spots/10,000 people	0	1	1.5	2	2.5	3	3.5	4	4.5	4.75
Daily income of scenic spots/10,000 yuan	0	26.2	39.75	53.6	67.75	79.95	85.2	89.6	92.1	93.6



It can be analyzed from the figure that y and x are basically functions. A wireless is close to 100, and k is infinitely connected. It

can be seen that the more tourists there are, the greater the revenue of the scenic spot, but it is not endless growth, but there is For a certain saturation value, the income will increase before the saturation value, but the income is likely to decrease after the saturation value. There may be some factors that affect the mood of the tourists. The saturation value will probably stop at 1 million. Looking at the linear line in the figure, we can intuitively see that the number of tourists and the revenue of the scenic area are basically increasing in a linear relationship, which means that the number of passengers directly affects the revenue of the scenic area.

Statistics of Private Cars, Tour Groups, and Walking Tourists in Benxi Scenic Area in 2018									
Scenic spot	Transportation	Number of vehicles	Car model	Road length	Local or not	Residence time	Weather	Season	Percentage
Guanmingshan Forest Park	Private car	56k	Japanese, European, domestic	2000m	Local / Foreign	1Day	Sunny / Cloudy	Summer / Autumn	0.97
	tour group	1k	Domestic	2000m	Local / Foreign	1Day	Sunny / Cloudy	Summer / Autumn	0.03
	Walking tourists	10k	Mountain Bike	2000m	Local / Foreign	1Day	Sunny / Cloudy	Summer / Autumn	0.00
Guanshan Lake Scenic Area	Private car	23k	Japanese, European, domestic	500m	Local / Foreign	1Day	Sunny / Cloudy	Summer / Autumn	0.96
	tour group	0.7k	Domestic	500m	Local / Foreign	1Day	Sunny / Cloudy	Summer / Autumn	0.04
	Walking tourists	10k	Mountain Bike	500m	Local / Foreign	1Day	Sunny / Cloudy	Summer / Autumn	0.00
Greensone Valley Scenic Area and Tanggou	Private car	32k	Japanese, European, domestic	500m	Local / Foreign	2Day	Sunny / Cloudy	Summer / Autumn	0.82
	tour group	0.3k	Domestic	500m	Local / Foreign	2Day	Sunny / Cloudy	Summer / Autumn	0.12
	Walking tourists	10k	Mountain Bike	500m	Local / Foreign	2Day	Sunny / Cloudy	Four Seasons	0.00
Huaxi Mu Tourism and Leisure	Private car	41k	Japanese, European, domestic	200m	Local / Foreign	2Day	Sunny / Cloudy	Four Seasons	0.75
	tour group	0.3k	Domestic	200m	Local / Foreign	2Day	Sunny / Cloudy	Four Seasons	0.25
	Walking tourists	10k	Mountain Bike	200m	Local / Foreign	2Day	Sunny / Cloudy	Four Seasons	0.00
Benxi Shuidong Scenic Area	Private car	64k	Japanese, European, domestic	600m	Local / Foreign	1Day	Sunny / Cloudy	Four Seasons	0.85
	tour group	1.5k	Domestic	600m	Local / Foreign	1Day	Sunny / Cloudy	Four Seasons	0.15
	Walking tourists	10k	Mountain Bike	600m	Local / Foreign	1Day	Sunny / Cloudy	Four Seasons	0.00

Small City Yizhuan g Tourism and Leisure	Private car	22k	Japanese, European, domestic	100m	Local / Foreign	1Day	Sunny / Cloudy	Spring, Summer / Autumn	0.91
	tour group	0.4k	Domestic	100m	Local / Foreign	1Day	Sunny / Cloudy	Spring, Summer / Autumn	0.09
	Walking tourists	10k	Mountain Bike	100m	Local / Foreign	1Day	Sunny / Cloudy	Spring, Summer / Autumn	0.00

As shown in the figure above, this is a statistical table of passenger throughput of approximately 1 million passengers in 2018 (incomplete statistics), and several of the proportions do not appear in the table.

It is not difficult to see that the most influential factor is the weather factor, and the weight of the weather factor is the largest among the weights of these influencing factors.

		处理摘要		
		个数	百分比	
样本	调查	8	80.00%	
	检验	2	20.90%	
有效		10		
消除		0		
总计		10		
		经验信息		
输入层	协变量	1	风景区收入、万元	(万元)
	单元数		1	
	协变量梯度		标准化	
隐藏层	隐藏量		1	
	单元数		2	
	激活函数		双曲正切	
输出层	因变量		景区人数 ()	(万人)
	单元数		1	
	因变量梯度		标准化	
	激活函数		恒等式	
	误差函数		二次方和	

		模型摘要		
调查	二次方和误差			
	相对误差			
	使用终止规则		误差在一个连续步	

			骤中没有减小 a	
	调查时间		0:00:00	
检验	二次方和误差			
	相对误差		b	
因变量:	风景区游客 ()	(万人)	a:误差基本检验样本	
			b:检验样本中因变量是常量	
		参数估计		
预测变量		H (1:1)	H(1: 2)	输出层 (风景区人数)
输入层	误差	-2.67	-2.46	
	风景区收入	-8.2	491	
隐藏层	H (1:1)			3.12
	H(1: 2)			3.19
		风景区重要性		
		重要性	正态重要性	
风景区收入		1	100%	

The above figure is a screenshot of a part of the model analysis weight of the neural network model. This shows that the scenic spot should not expect to make a lot of money in the scenic spot when the weather is bad.

Of course, the data of this model is calculated by us, there will definitely be some errors, and this model has many limitations, but conversely, this model can also be used as a basis to guide the decision-making of scenic spots and tourists to a certain extent.

2.3 Analyze the rationality of the decision model

First of all, the constraints of the open problem, the variable factors are weather factors, experience factors, seasons and months, and then analyze and deal with this problem without considering the problem of closed scenic spots. Due to resource issues, we were unable to obtain particularly specific relevant data. We conducted similar surveys by contacting local residents and the service staff of the hotel, and interviewed nearly 100 people (divided into ten groups). We estimated from this sample The sample population summarizes a series of information we need.

We use SPSS software to perform cluster analysis on known data-centroid clustering to get the following chart.

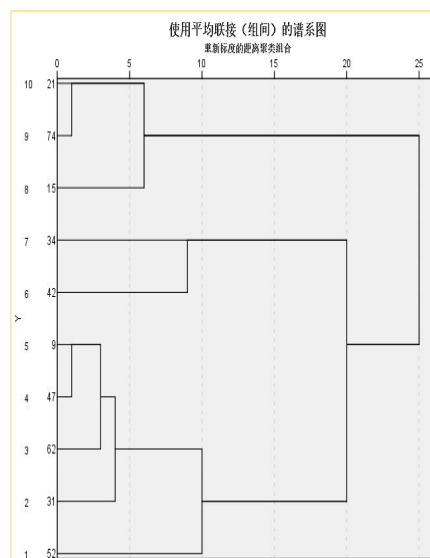
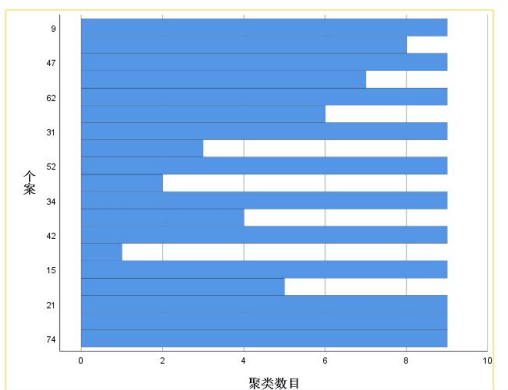
质心联接

集中计划

阶段	组合聚类		系数	首次出现聚类的阶段		下一个阶段
	聚类 1	聚类 2		聚类 1	聚类 2	
1	36	37	.000	0	0	15
2	34	35	.000	0	0	19
3	29	30	.000	0	0	27
4	27	28	.000	0	0	25
5	23	24	.000	0	0	16
6	20	21	.000	0	0	14
7	17	18	.000	0	0	15
8	15	16	.000	0	0	18
9	13	14	.000	0	0	13
10	11	12	.000	0	0	22
11	6	7	.000	0	0	24
12	2	3	.000	0	0	16
13	13	25	1.006	9	0	35
14	20	38	4.001	6	0	30
15	17	36	9.049	7	1	21
16	2	23	9.049	12	5	20
17	8	39	16.002	0	0	25
18	15	26	25.009	8	0	22
19	32	34	62.484	0	2	23
20	2	5	81.066	16	0	24
21	17	22	81.066	15	0	23
22	11	15	136.115	10	18	30
23	17	32	140.148	21	19	32
24	2	6	150.674	20	11	32
25	8	27	169.000	17	4	29
26	4	19	225.000	0	0	31
27	29	40	225.000	3	0	28
28	10	29	400.000	0	27	36
29	8	9	462.250	25	0	33
30	11	20	469.446	22	14	37
31	4	33	506.250	26	0	34
32	2	17	521.411	24	23	34
33	8	31	829.441	29	0	35
34	2	4	2223.790	32	31	38
35	8	13	7511.156	33	13	37
36	1	10	13225.031	0	28	39

平均联接 (组间)

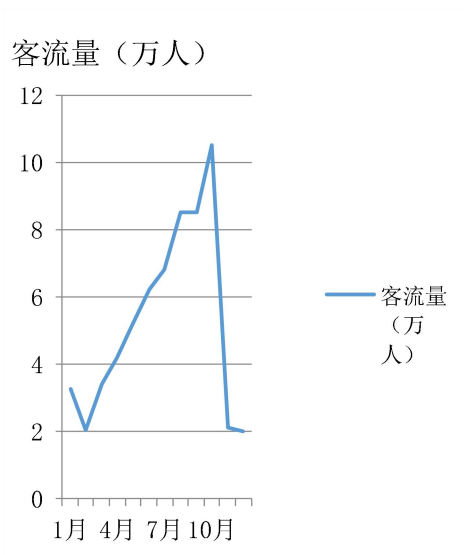
阶段	组合聚类		系数	首次出现聚类的阶段		下一个阶段
	聚类 1	聚类 2		聚类 1	聚类 2	
1	21	74	.000	0	0	5
2	9	47	.009	0	0	3
3	9	62	.022	2	0	4
4	9	31	.031	3	0	7
5	15	21	.059	0	1	9
6	34	42	.084	0	0	8
7	9	52	.095	4	0	8
8	9	34	.198	7	6	9
9	9	15	.253	8	5	0



According to this chart, we can see that the degree of sunny weather directly affects the number of tourists, and they are positively correlated, which means that the better the weather, the more people there are, the more cloudy it is and the rain; the more windy and

thunder, the fewer tourists. . This is a conclusion based on specific data, but there are some differences based on the actual situation. Through our statistics on scenic spots, we found that weather factors are indeed the main reason. Although scenic spots can operate normally due to bad weather, there are naturally fewer tourists who are worried about physical factors.

Passenger Flow of Guanmen Mountain Scenic Area in 2018												
Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Passenger flow (10,000 people)	3.24	2.3	3.2	4.2	5.2	8.01	6.82	8.5	8.52	10.5	2.1	2.0



The statistics in the above table are basically consistent with the analysis of the model. The most direct factor affecting the passenger flow and income of the Benxi Scenic Area is the weather. The weather is related to the season. Seasonal tourism is very important in the tourism planning of the Benxi area.

But in addition, there are other small factors. For example, summer vacation, or when it is a holiday season for tourism, even if the weather is a little bad, there will be many out-of-towners coming here, so this can also be said to be the peak season for scenic spots. There are also some accidents in the road construction, resulting in traffic jams or inability to travel, which will cause great dissatisfaction and discomfort to tourists, which will also cause the loss of some tourists in the scenic spot.

But in general, our model construction basically conforms to the conventional scenic spot situation, which is relatively reasonable. The advantage of this model is that it limits many, many unexpected factors, and leaves a few more important factors for discussion and research, so that its important influencing factors can be quickly drawn, but it also exposes its existence. Disadvantages, because it limits too many unexpected factors, so this model cannot be very flexible for analysis and guidance. This model and the description of local residents show that the decision-making of the preparatory course depends on the weather and the days of tourism holidays, as well as the incompleteness of data statistics and the limitations of local residents' hearts and cultural qualities.

3. Construct a genetic model to rationally arrange private cars and tourists and reasonably queue types

There are two types of queuing methods commonly used in scenic areas, namely "multi-queue" queuing and "single-queue" queuing. The solution process based on the analytical method of the multi-pair system.

3.1 The multi-pair queuing system has the following characteristics:

(1) Private cars outside the scenic area are unlimited. When private cars and customers arrive one by one, when they arrive at the interval between private cars one after another

Obey the exponential distribution.

(2) Queuing rules: Private cars enter the same queue and pass by.

(3) Service organization: There is only one service desk, and the continuous time for each customer to receive service obeys the exponential distribution.

The system generally has two input parameters:

λ : The arrival rate of private cars, the number of tourists who arrive at the scenic spot per unit time.

μ : Service rate, the number of passing tourists per unit time.

The solution method of the queueing model of multi-pair waiting system is as follows:

Note that $P_n = P\{N=n\}$ ($n=1,2,3\dots$) is the probability distribution of the length N after the system reaches the equilibrium state, and the service intensity of the scenic spot is represented by ρ . Since the system is a typical birth and death system, So we can get $P_n = \rho^n P_0$, where $N=1,2\dots$ where

$$P_0 = \frac{1}{1 + \sum_{n=1}^{\infty} \rho^n} = \left(\sum_{n=1}^{\infty} \rho^n \right)^{-1} \quad (3.1)$$

$$\text{Where the service intensity } \rho = \lambda / \mu \quad (3.2)$$

$$\text{Therefore } P_n = (1 - \rho) \rho^n \quad N=1,2\dots \quad (3.3)$$

Service intensity is a response to how busy the system is. From equation (3.2), it can be seen that only in the case of $\rho < 1$, can the value of ρ^n be obtained. Therefore, the premise of solving the queueing problem based on the analytical method is the service intensity $\rho < 1$, at this time, the system can reach the statistical state.

Average queue length:

$$L_s = \sum_{n=0}^{\infty} n \rho^n = \sum_{n=1}^{\infty} 1^n (1 - \rho) \rho^n = (\rho + 2\rho^2 + 3\rho^3 + \dots) - (\rho^2 + 2\rho^3 + 3\rho^4 + \dots) = \frac{\rho}{1 - \rho} = \frac{\lambda}{\mu - \lambda}$$

$$L_q = \rho^n = L - (1 - P_0) = L - \rho$$

$$\text{Average residence time: } W_s = \frac{1}{\mu - \lambda}$$

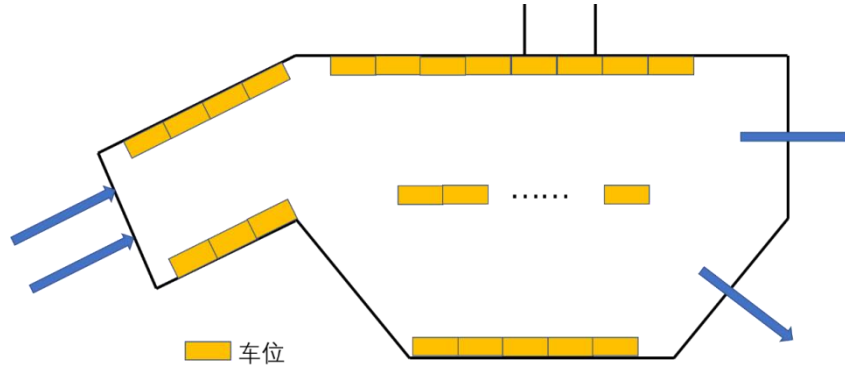
Modeling analysis of departure lane based on queueing theory (take Guanmenshan National Forest Park as an example)

On the side of the departure lane, vehicles drive in sequentially through the approach road, and complete the process of finding parking spaces, stopping, and driving away during the process of driving; this process will automatically find the corresponding service desk after the tourists enter the queueing system. The process of queuing to accept the service and leaving automatically after the service is completed is very similar. Therefore, the demand model of the departure lane can be established through the queueing theory.

The model is an abstract and essential description of the actual system. The departure lane side system is composed of roads, parking lanes, driving lanes, various vehicles, and walking tourists objects. Each object and its attributes have a certain degree of discreteness, randomness and uncertainty. Therefore, the departure lane side Based on the modeling of queueing theory, certain simplifications and assumptions must be made:

- (1) The delay caused by pedestrians crossing the carriageway to the passage of vehicles is not considered
- (2) Do not consider the reduction in traffic capacity caused by vehicle interweaving caused by vehicles entering and exiting parking spaces
- (3) Assuming that the vehicle is not selective about the parking space, it will enter the parking space for the first time.
- (4) Suppose the vehicle does not find a parking space, that is, it waits in the queue until it finds a parking space.

Based on the above assumptions, the running process along the departure lane can be abstracted as a queueing system with a single queue and n service desks providing parallel services, as shown in the figure:



Parking intention in Guanmen Mountain Scenic Area

By analyzing this question is a vehicle scheduling problem, but there are two variables in it, we now need to limit some variables to create the model, first determine the number of self-driving cars, then the number of tourists can be roughly estimated at this time, first determine the number It is 25, and then it is determined that they are all ordinary tourists. There is no unpleasant thing between the scenic service staff and the tourists during the whole process. Assuming that there are X number of private cars, the staff will release x number of private cars at a time. This is x number of private cars. In the case of the car, tourists will choose the nearest scenic spot to play in the mind to assume that we need to calculate the distance y from the car to the scenic spot for modeling calculations.

Now that we know the idea of the problem, we know that the slowest time for a quantity is 5 seconds (including the time for asking the price) by asking local residents, and the slowest vehicle start takes 1 second, that is to say, the slowest time for a car to start takes 6 seconds Bell. Now use genetic algorithm to solve.

```

编辑器 - C:\Users\孙鹏\Desktop\Untitled2.m
Untitled2.m  x  +
1  -  clc;
2  -  clear;
3  -  popsize=200, MaxGeneration=100,
4  -  pointnumber=11;
5  -  Popsize=200;
6  -  MaxGeneration=100;
7  -  Pc=0.8; Pa=0.3;
8  -  A=[0 2 8 1 50 59 50 50 50 50 50
9  -  2 0 6 50 1 50 50 50 50 50 50
10 - 8 6 0 7 50 1 50 50 50 50 50
11 - 1 50 7 0 50 50 9 50 50 50 50
12 - 50 1 50 50 0 3 50 2 50 50 50
13 - 50 50 1 50 3 0 4 50 6 50 50
14 - 50 50 50 9 50 4 0 50 50 1 50
15 - 50 50 50 50 2 50 50 0 7 50 9
16 - 50 50 50 50 50 6 50 7 0 1 2
17 - 50 50 50 50 50 1 50 1 0 4
18 - 50 50 50 50 50 50 50 9 2 4 0];
19 -  A(A==50)=500;
20 -  Bestindividual=zeros(MaxGeneration,1);
21 -  outdistance=zeros(11,11);
22 -  outpath=cell(11,11);
23 -  for a=1:pointnumber
24 -     tempvary=[1 2 3 4 5 6 7 8 9 10 11];
25 -     tempvary(a)=[];
26 -     tempmatrix=a*ones(Popsize,1);
27 -     path=zeros(Popsize,pointnumber-1);
28 -     for i=1:Popsize
29 -         temprand=randperm(pointnumber-1);
30 -         path(i,:)=tempvary(temprand(1:end));
31 -     end
32 -     path=[tempmatrix path];
33 -     [row,col]=size(path);
34 -     for b=a:pointnumber
35 -         b=9;
36 -         for k=1:MaxGeneration
37 -             for i=1:row
38 -                 position2=find(path(i,:)==b);
39 -                 pathlong(i)=0;

```

```

popsize =
    200

MaxGeneration =
    100

outdistance =
    0  2  7  1  3  6  10  5  12  11  14
    2  0  5  3  1  4  8  3  10  9  12
    7  5  0  7  4  1  5  6  7  6  9
    1  3  7  0  4  7  9  6  11  10  13
    3  1  4  4  0  3  7  2  9  8  11
    6  4  1  7  3  0  4  5  6  5  8
    10 8  5  9  7  4  0  9  2  1  4
    5  3  6  6  2  5  9  0  7  8  9
    12 10 7  11 9  6  2  7  0  1  2
    11 9  6  10 8  5  1  8  1  0  3
    14 12 9  13 11 8  4  9  2  3  0

outpath(1,1) =
    1

outpath(2,1) =
    2  1

outpath(3,1) =
    3  6  5  2  1

```

As shown in the figure, it is best to put 10 cars at a time, and the pick-up point is about 100 meters before the exit. By calculating one by one, it is most appropriate in this case. In this case, the safety of self-driving cars and tourists is guaranteed, and the efficiency of the assembly is also improved.

According to the actual analysis of the model, the slowest time for a car is six seconds. It takes about two minutes for a car to drive a distance of 100 meters under the limit of 30 kilometers per hour. According to this, the driving time is estimated to be two minutes. The number of tourists is About 40 people, and there will be no stranded waiting at this time. After the first batch of cars leave, the second batch of cars will immediately catch up with the time difference of no more than one minute, so the conclusion of the realistic analysis model is also reasonable, so this model is It meets the actual requirements, but the downside is that if you want to modify the data, you have to modify it extensively, which is not conducive to the replication mode, and is only suitable for customized solutions.

3.2 "Priority" arrangements

First of all, we must first determine what is going in and out of the scenic spot, and what is a farther scenic spot. To figure out this dividing line, we must first check whether there are similar hotels, restaurants, inns, etc. within three kilometers of the airport. Generally, three People within kilometers are basically driving and walking, but just in case we set a branch line of three kilometers, of course, we can't publish it directly on the bulletin board, but should list the number within three kilometers on the bulletin board. Some buildings are for tourists to identify in detail; then six kilometers away, count the landmark buildings within six kilometers away from three kilometers away, or use a map for passengers to choose where to line up; finally six kilometers away only mark a few The building will do. This way of determining what is far and near is based on the cost standard, so that it can be more specific to match the long and short distances to balance the benefits of the scenic spot.

The first interpretation of "priority" is to let short-distance cars go first, that is, let cars within three kilometers and cars within six kilometers leave first. At this time, a green channel is needed to allow short-distance cars to go as fast as possible. Leaving at a faster speed can also allow them to come back as quickly as possible, using time savings to hook back the income gap in distance.

The second interpretation of "priority" is the policy of foreign vehicles, which means that once there is a dispute between a local private car and a foreign private car, then the dispatcher of the scenic spot should give priority to the placement of foreign vehicles through this alternate long and short distance tourists. To balance the income of renting a car in the airport area. But there are some problems with this method. I think you don't know who the foreign tourists are. At this time, you need a system or method to restrict and limit the probability of this kind of thing. It can be identified by the vehicle number, but the best The suggestion is to use some

gentle methods to deal with this matter as much as possible, otherwise it may damage the mood and interests of both parties.

The third explanation of "priority" is that odd and even numbers enter the scenic spot alternately, which means that no matter whether the number is alternately entered in the field or when the vehicle number is alternately entered, it is easy to manage and the scenic service staff can identify it at a glance and directly divert the traffic. Not only can it balance the mood of tourists, but to a certain extent, it can also increase the speed of tourists' destinations, which also increases the total revenue of the scenic spot.

After comparing the three schemes, the most reasonable and easiest to implement is the third scheme. The other two schemes have some management system formulations. Once there are major flaws in the system, it is easy to cause damage to the interests of both parties. , But on the other hand, once the system is perfect, the above two solutions are also great solutions. Therefore, without the support of a perfect system, I suggest using the third option. His dispute is the smallest and the time to emerge is the slowest. This gives the scenic spot plenty of time to establish a perfect system.

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