

## Factor that influencing tourist behavior intentions of health tourism in the Nanning City of China

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### Abstract

In 2017, Nanning was designated by the National Tourism Administration and the State Administration of Traditional Chinese Medicine as one of the first 15 national TCM health tourism demonstration zones in the country. How to rely on the relevant government policies to enhance the development of Nanning's health tourism industry is a topic worthy of research. Therefore, this study takes Nanning City as the research scope, takes Hierarchy of Needs and Marketing Mix as research variables, explores the influence of tourists' behavior intentions in Nanning's health tourism, and then puts forward suggestions for the development of Nanning's health tourism industry. The travel willingness and feedback of health tourism customers are important reference factors for business operation and profitability. Government departments can use these results to improve policies related to health tourism. By strengthening policy implementation, promoting and attracting enterprises to develop the health tourism industry in the local area will help promote the development of "health tourism". The research sample group is domestic tourists traveling to Nanning City. The questionnaire method was used to conduct a questionnaire survey of 500 domestic tourists to Nanning, and the data obtained were analyzed using SPSS statistical procedures. Data analysis is mainly divided into two parts. First, use the method of descriptive statistics to quantitatively describe the Demographic Characteristics of the Respondents (features). Secondly, through reliability analysis, validity analysis, difference analysis, correlation analysis and regression analysis to determine the relationship and meaning of each concept. At the same time, the research hypothesis is tested. The results show that the physiological needs, safety needs, respect needs and self-realization needs of tourists have a significant positive impact on the willingness of Nanning's health tourism behavior. Tourist locations, production services, product prices and marketing methods also have a significant impact on Nanning's health tourism. Willingness to behave has a significant positive impact. Based on the conclusions drawn from SPSS data analysis, the author puts forward the following suggestions for the development of the big health tourism industry in Nanning: 1. The government should improve the relevant policy system and optimize the development plan for the big health tourism industry. 2. Actively expand the promotion of Nanning's health tourism and increase investment promotion. 3. Innovate the big health tourism industry model and build a big health tourism brand. 4. Improve the service management system and improve the quality of supporting services for health tourism.

**Keywords:** Health Tourism industry, Development in the Nanning City, Health Tourism Behavior

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### Introduction

Since the end of 2019, a new type of coronavirus pneumonia broke out globally, which has had a serious impact on people's lives. According to domestic authoritative media such as CCTV News, official websites of overseas health departments, and mainstream media, as of December 19, 2021, there were 274,822,060 confirmed cases worldwide,

5,358,541 deaths, and 50,966,468 confirmed cases. Health issues have once again become a hot spot and are paid attention to and valued by people all over the world. At the beginning of the new year of 2020, the sudden outbreak of new coronary pneumonia threatened lives and impacted the economy, seriously affecting my country and the world. For several months, in order to prevent and control the spread of the epidemic, many airports at home and abroad have been suspended, almost all tourist attractions in my country have been closed, all large-scale events have been forced to cancel, and cultural venues have had to close. However, tourism consumption and income have shown a "cliff-like" decline, a large number of cultural and tourism enterprises have fallen into a crisis of survival, and the cultural and tourism industry has been hit unprecedentedly. It is estimated that during the Spring Festival holiday alone, the loss of my country's cultural tourism industry will exceed 500 billion yuan. According to data from the National Bureau of Statistics, in the first half of 2020, the operating income of cultural and related industries above designated size in the country decreased by 6.2% compared with the same period of the previous year 2020. (Cui Jing,2021)

Secondly, since 2012, the Chinese government has attached great importance to health issues, and the construction of a healthy China has become a national strategy. Furthermore, Guangxi is a multi-ethnic province. Since 2019, Guangxi has issued a number of policies related to the development of the health industry. A new driving force for Guangxi's economic growth.

In 2017, Nanning, the capital of Guangxi, was designated by the National Tourism Administration and the State Administration of Traditional Chinese Medicine as one of the first 15 national TCM health tourism demonstration zones in the country. According to statistics, from January to September 2019, the total number of tourists in Nanning increased by 14.34% year-on-year, and tourism consumption increased by 23.58% year-on-year. Therefore, as the permanent venue of the China-ASEAN Expo, Nanning faces opportunities and challenges in the development of the health tourism industry. In the post-epidemic period, how Nanning can seize the good opportunities for the development of the big health tourism industry and promote and enhance the organic integration of the big health industry and the tourism industry is a problem worthy of study.

### Objectives

1. To provide data reference for the construction of health tourism in Nanning City for government departments and investors.
2. Explore the impact of Maslow's hierarchy of needs theory and marketing mix on the willingness of domestic tourists to travel to Nanning for health.
3. Put forward some suggestions for the promotion and development of Nanning's big health tourism industry.

### Literature Review

The health industry is a collection of production activities based on medical and health, biotechnology, and life sciences, with the purpose of maintaining, improving and promoting the health of the people, and providing the public with products and services directly or closely related to health.

#### The development of the domestic health industry

The domestic health industry is still in its infancy. Compared with the United States, the structure of the health industry is relatively simple, with hospitals and medical services accounting for 95%. The refinement and rationalization of the industry needs to be further improved and perfected. Through the collection and analysis of past academic achievements, the characteristics of the development of the domestic health industry can be summarized. The details are as follows: 1. The broad health industry has broad prospects for development. The reason is that the national strategy of "building a healthy China" and the current market are facing market conditions such as population aging, environmental pollution, economic development, increased health awareness, and changes in medical costs. 2. The scale of the elderly care industry market has increased. By 2020, the elderly population of 66 years and over will account for 10.1% of the country's total population, which is approximately 137 million. 3. The scale of the health tourism market will reach hundreds of billions. In 2015, the total transaction size of China's tourism market was 4,130 billion yuan, and that of health tourism was about 40 billion yuan. 4. The country has begun to attach importance to the construction of health industry parks, especially in developed areas. For example, Suzhou City, Zhejiang Province has built a global international health industrial park, which is the only international industrial park in China with the theme of health industry chain integration. In Nanning, Guangxi, Evergrande Cultural Tourism Health City has been completed. It is located in the national airport economic zone, close to Wuxu Airport. Covers an area of 500,000 square meters. It is a comprehensive cultural tourism health resort integrating hot springs, gourmet food, themed cultural park, health valley, and modern wisdom agricultural science academy.

#### The status quo of overseas development of health tourism

In most developed countries such as the United States, Britain, France, Liangpanya, and Germany, sports tourism and rehabilitation tourism that use natural resources to treat diseases are very popular. According to statistics, in 2001, there were about 20,205 health tourism residential or non-residential sites in the UK, and about 71,000 other infrastructures to support health tourism. In France, it is estimated that there will be about 1.3 million domestic health tourism every year, with a continuous increase of 4-5% per year. However, developing countries where health tourism has gradually emerged, such as Cuba, India, Thailand, the Malay Islands, Singapore, South Korea, etc., mostly focus on medical tourism research and unique physical therapy projects. Medical tourism in these countries is based on low prices and quality. High characteristics attract more and more foreign tourists, while special physiotherapy or health care projects rely on different cultural backgrounds.

### Types of Health Tourism

In recent years, many tourist destinations have provided health care facilities and services to help customers rejuvenate and maintain physical and mental health. McIntosh, Goeldner and Ritchie (McIntosh, Goeldner and Ritchie, 1995) classified tourism motivation into four types: physical health motivation, cultural motivation, interpersonal motivation, status and prestige motivation. The motivation of physical health is related to physical and mental recovery, health care, sports and entertainment. People pay attention to relaxing the body and mind during travel and avoiding stressful and stimulating activities. Then, the combination of health motivation and tourism form—the type of tourism that aims at health is called health tourism.

At present, there are many expressions on the classification of health tourism in the literature. Representatives such as Li Huifang, etc., divide health tourism into three types: restoration of health, continued health, and enrichment of health based on tourism motivation. After analyzing the origin and evolution of the concept of health tourism at home and abroad, Li Peng and others put forward that health tourism can be divided into two types: health tourism and medical tourism.

### Theory

#### Maslow's Hierarchy of Needs Theory

American psychologist Maslow is the founder of humanistic psychology. He put forward the hierarchy of needs in his book "Theory of Human Motivation" published in 1943. In order to understand people's behavior in society, Maslow believes that it is necessary to do some preliminary understanding of people's basic needs and internal driving forces. Therefore, he divides people's basic needs into several levels, that is, from elementary needs to advanced needs, in order of echelon: physiological needs, safety needs, social needs, respect needs and self-realization needs. Maslow's theory was fully expressed in his 1954 book Motivation and Personality. These five levels can be classified in this way. Physical needs and safety needs are basic needs, social needs and respect needs are psychological needs, and the last level is Self-Fulfillment needs. The hierarchy remains a very popular framework in sociology research, management training (Kremer, William Kremer; Hammond, Claudia., 2013) and secondary and higher psychology instruction. Therefore, the introduction of this theory in this study helps to understand the needs of consumers. Consumer needs reflect the needs of the tourism market to a large extent. This is self-evident for the development of the health tourism industry. By analyzing the tourism market demand, understanding tourists' travel motives and interest preferences, combining the health tourism resources and environmental status, clarifying the influencing factors of the health tourism industry, and optimizing the future development path of the health tourism industry.

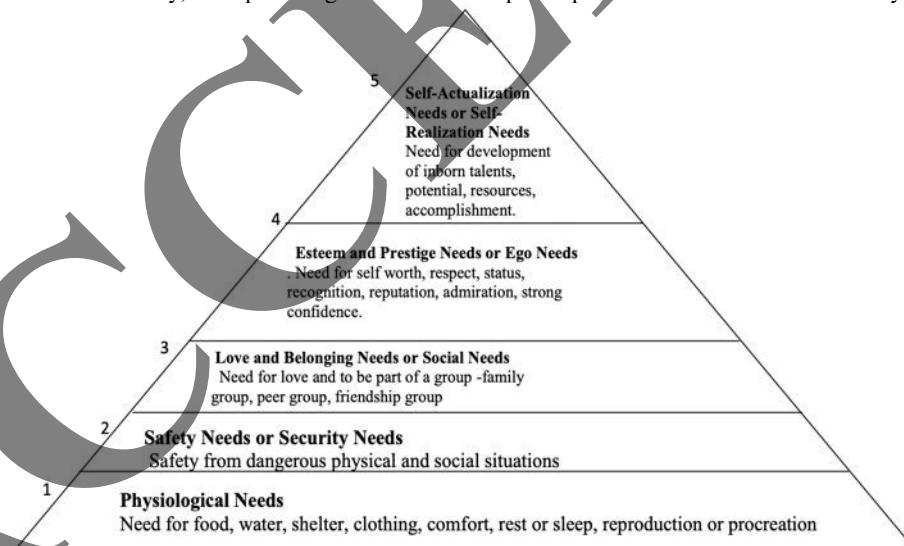


Figure 1 Maslow's Hierarchy of Needs Theory

Abraham H. Maslow (1943)

#### Marketing Mix 4ps Theory

The 4Ps of marketing is a model for enhancing the components of your "marketing mix" – the way in which you take a new product or service to market. It helps you to define your marketing options in terms of price, product, promotion, and place so that your offering meets a specific customer need or demand.

The marketing mix and the 4Ps of marketing are often used as synonyms for one another. In fact, they are not necessarily the same thing.

"Marketing mix" is a general phrase used to describe the different kinds of choices organizations have to make during the process of bringing a product or service to market. The 4Ps is one way – probably the best-known way – of defining the marketing mix, and was first expressed in 1960 by E. J. McCarthy in his book, "Basic Marketing – A Managerial Approach."

- The 4Ps are:
1. Product (or Service).
  2. Place.
  3. Price.
  4. Promotion.

### Conceptual Framework

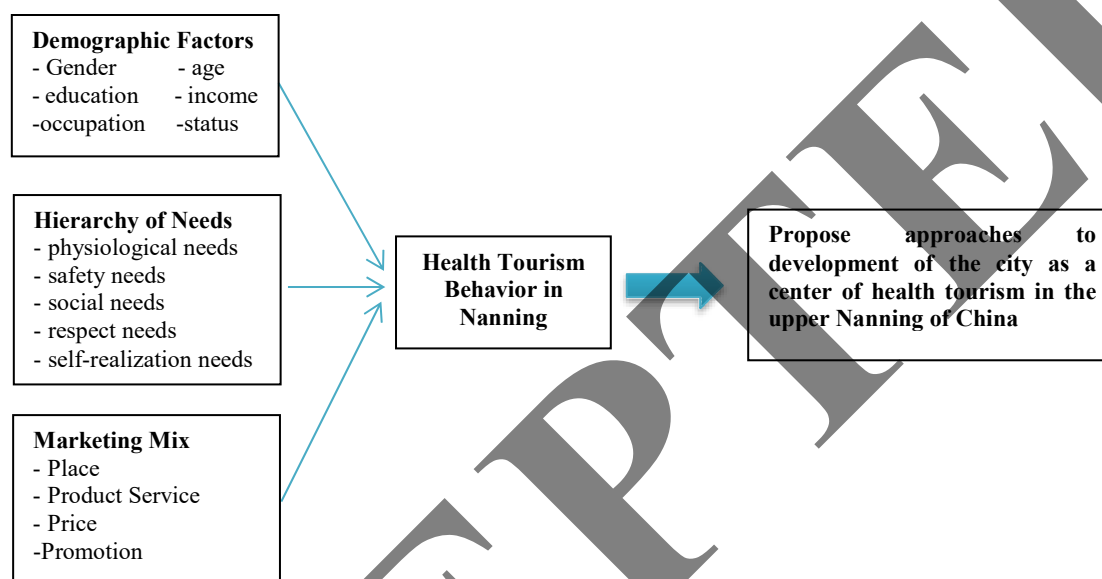


Figure 2 Conceptual Framework

### Research Methodology

#### 1. Population and Samples

This study mainly surveys about 500 domestic tourists who travel to Nanning City for health tourism.

This study uses a simple random sampling method to collect data on domestic tourists who go to Nanning to participate in health tourism. Due to the large number of tourists, it is impossible to estimate accurately, therefore, the cochrane formula is selected to calculate the sample size and collect data from the sample. Investigators have access to information on people of different ages and levels, sampling error can be estimated, and survey results can be used to infer the overall situation.

#### 2. Research Instrument

In the initial stage of the research, exploratory methods are used to describe the research questions, that is, to answer the research questions. Secondly, before the theory is formed, collect data and use explanatory methods to answer "how to carry out" and "why to study". Finally, use descriptive methods to present information about the research phenomenon. Therefore, this research mainly adopts exploratory methods, collecting raw data in the form of questionnaire survey.

#### 3. Collection of Data

In this study, researchers used sampling methods to collect data and conducted research in the form of questionnaire surveys. Specific steps are as follows:

3.1. Contact the school and instructor to consult the rationality of the design content of the questionnaire.

3.2. Distribute the questionnaire to domestic tourists in Nanning. Using the Cochran method to measure the number of questionnaires, the researchers sent a total of 535 questionnaires and collected data for research.

3.3. Analyze the data in the evaluation form.

#### 4. Data Analysis

In terms of data analysis, this study uses SPSS (Statistical Product and Service Solutions) software for descriptive data analysis, T test, regression analysis and validity analysis. 1. Perform descriptive statistical analysis on the basic demographic characteristics of the interviewees in six aspects: gender, age, education level, income, occupation and status, variables of tourists' demand for health tourism, and variables of marketing mix. 2. Through factor analysis, analyze the physiological needs, safety needs, social needs, respect needs, self-realization needs of tourists' needs, as well as the reliability and validity of location, production services, prices, and marketing methods in the marketing mix. 3. Use t-test (full name independent sample t-test) to study the differences in tourism demand and marketing mix of different genders, and use analysis of variance (full name one-way analysis of variance) to test the demographic

characteristics of tourists and healthy tourism needs relation. The demographic characteristics involved include age, occupation, education level, income, etc. 4. Through correlation analysis, study the correlation between health tourism willingness and tourists' demand level and marketing mix. 5. Taking Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs as independent variables, and Tourism behavior as dependent variables for linear regression analysis, to study the 4 aspects of health tourism demand and marketing mix for tourist health tourism. The degree of influence of willingness.

## Results

In this research, there are 535 tourists as a sample. The analysis of the sample mainly includes: frequency analysis, descriptive analysis, reliability analysis, validity analysis, difference analysis, correlation analysis and regression analysis.

### 1. Frequency analysis

It's more than 50% of the sample persons in the sample are women. Another 45.61% of the sample persons are men. In terms of age, 18.13% of the age distribution in the sample is concentrated in "46-60 years old". In terms of education level, 15.51% of the sample personnel are "master students". In terms of income, the highest proportion of "over 20,000 yuan" is 14.21%. In terms of occupational distribution, most of the samples are "freelancers (such as writers/artists/photographers/guides, etc.)", with a total of 57.0, accounting for 14.02%. More than 20% of the travel times selected the "4th time". From the perspective of travel companions, there are relatively more people with "friends", the proportion is 28.97%. 20.75% of people learned travel information from "friends".

### 2. Descriptive analysis

Table 1 Descriptive Analysis

Items	N of samples	Min	Max	Mean	Std. Deviation	Median
Physiological needs	535	1.000	5.000	3.460	1.152	4.000
Safety needs	535	1.000	5.000	3.409	1.185	3.000
Social needs	535	1.000	5.000	3.350	1.025	3.500
Respect needs	535	1.000	5.000	3.379	1.029	3.500
Self-fulfillment needs	535	1.000	5.000	3.346	0.932	3.333
Place	535	1.200	5.000	3.266	0.871	3.400
Product service	535	1.000	5.000	3.302	0.947	3.333
Price	535	1.000	5.000	3.314	0.929	3.333
Promotion	535	1.000	5.000	3.331	0.932	3.333
Tourism behavior	535	1.000	5.000	3.369	0.910	3.500

Through descriptive analysis, among the dimensions in the above table, the sample size is 535, the dimension with the largest average value is Physiological needs, and the average value is 3.460; the dimension with the smallest average value is Place, and the average value is 3.266. This measurement form requires the respondent to provide an answer in the range of 5 points from 1 to 5 on each item. Based on the average score of each item, respondents tend to strongly agree that sanitary conditions affect tourists' satisfaction with healthy tourist attractions (mean 3.460, SD 1.152). This is most likely due to the impact of the new crown epidemic in 2020 and people's emphasis on health. Among the above factors, the one that respondents paid the least attention to was the place-related elements.

### 3. Reliability Analysis

Table 2 Cronbach Alpha

Items	N of Items	n	Cronbach $\alpha$
Social needs	2	535	0.823
Respect needs	2	535	0.841
Self-fulfillment needs	3	535	0.854
Place	5	535	0.900
Product service	3	535	0.868
Price	3	535	0.857
Promotion	3	535	0.863
Tourism behavior	2	535	0.787

It can be seen from the table that the Cronbach's Alpha coefficient values corresponding to the eight dimensions of the scale are all greater than 0.7, indicating that the internal consistency of the questionnaire is good, so the reliability of the results of this survey is very good. At the same time, the deleted Cronbach's Alpha value of most items is lower than the overall Cronbach's Alpha reliability coefficient. Therefore, all the questions are the measurement of the same concept, and there is no need to delete the question items.

### 4. Validity Analysis

Table 3 KMO and Bartlett test

	KMO	0.906
	Approx. Chi-Square	7640.507
Bartlett test	<i>df</i>	300
	<i>p</i> value	0.000

Use factor analysis for information enrichment research, first analyze whether the research data is suitable for factor analysis. It can be seen from the above table: KMO is 0.906, which is greater than 0.6, Meeting the prerequisites of factor analysis means that the data can be used for factor analysis research. And the data passed the Bartlett sphericity test ( $p < 0.05$ ), indicating that the research data is suitable for factor analysis.

Table 4 Total Variance Explained

Factor	Eigen values			% of variance (Initial)			% of variance (Rotated)		
	Eigen	% of Variance	Cum. % of Variance	Eigen	% of Variance	Cum. % of Variance	Eigen	% of Variance	Cum. % of Variance
1	9.360	37.440	37.440	9.360	37.440	37.440	3.759	15.036	15.036
2	2.023	8.092	45.533	2.023	8.092	45.533	2.822	11.287	26.323
3	1.592	6.369	51.902	1.592	6.369	51.902	2.635	10.540	36.863
4	1.475	5.901	57.803	1.475	5.901	57.803	2.602	10.410	47.273
5	1.268	5.071	62.874	1.268	5.071	62.874	2.514	10.057	57.330
6	1.258	5.030	67.904	1.258	5.030	67.904	1.915	7.660	64.989
7	1.096	4.385	72.289	1.096	4.385	72.289	1.825	7.300	72.289
25	0.184	0.736	100.000	-	-	-	-	-	-

The above table analyzes the factor extraction situation and the amount of factor extraction information. It can be seen from the above table that the factor analysis has extracted a total of 7 factors, and the characteristic root values are all greater than 1. The variance interpretation rates of the 7 factors after rotation are 15.036%, 11.287%, 10.540%, 10.410%, 10.057%, 7.660%, and 7.300%, respectively. The cumulative variance interpretation rate after rotation is 72.289%.

Table 5 Factor loading (Rotated)

Items	Factor loading							Communalities
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	
Q9	0.097	0.280	0.258	0.234	0.218	0.163	0.131	0.300
Q10	0.142	0.319	0.207	0.285	0.134	0.141	0.219	0.332
Q11	0.147	0.116	0.128	0.100	0.173	0.073	0.870	0.854
Q12	0.192	0.143	0.194	0.137	0.084	0.086	0.845	0.843
Q13	0.189	0.103	0.118	0.111	0.111	0.878	0.044	0.858
Q14	0.202	0.157	0.151	0.113	0.136	0.838	0.103	0.833
Q15	0.119	0.147	0.109	0.065	0.881	0.077	0.097	0.843
Q16	0.186	0.160	0.136	0.128	0.780	0.082	0.143	0.731
Q17	0.188	0.073	0.167	0.161	0.802	0.141	0.053	0.760
Q18	0.890	0.103	0.054	0.136	0.084	0.094	0.085	0.847
Q19	0.785	0.127	0.085	0.126	0.102	0.171	0.058	0.699
Q20	0.739	0.177	0.113	0.108	0.192	0.102	0.116	0.663
Q21	0.765	0.117	0.159	0.166	0.111	0.127	0.138	0.700
Q22	0.786	0.130	0.154	0.116	0.129	0.069	0.089	0.701

Table 5 Factor loading (Rotated)

Items	Factor loading							Communalities
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	
Q23	0.161	0.882	0.077	0.100	0.062	0.072	0.083	0.836
Q24	0.186	0.798	0.149	0.185	0.118	0.092	0.049	0.752
Q25	0.134	0.807	0.117	0.178	0.158	0.102	0.113	0.762
Q26	0.110	0.097	0.860	0.164	0.106	0.087	0.095	0.815
Q27	0.155	0.125	0.779	0.163	0.133	0.146	0.100	0.722
Q28	0.169	0.172	0.800	0.174	0.167	0.080	0.163	0.790
Q29	0.124	0.134	0.149	0.874	0.100	0.134	0.045	0.849
Q30	0.213	0.196	0.147	0.775	0.151	0.056	0.144	0.752
Q31	0.210	0.194	0.220	0.774	0.097	0.073	0.080	0.750
Q32	0.180	0.328	0.290	0.316	0.253	0.280	0.190	0.502
Q33	0.269	0.332	0.317	0.237	0.256	0.341	0.241	0.579

Note: Blue indicates that the absolute value of loading is greater than 0.4, and red indicates that the communality is less than 0.4.

Overall, the results obtained by rotating the component matrix are consistent with the scale and dimensions of the research design division. At the same time, the load value of each item of each dimension is greater than 0.5. Therefore, the validity of the questionnaire is high, the questionnaire is valid, and subsequent research and analysis can be carried out.

#### 5. Variation Analysis

Table 6 Independent t test

	Gender (Mean $\pm$ Std. Deviation)		t	p
	male (n=244)	Female (n=291)		
Physiological needs	3.23 $\pm$ 1.18	3.65 $\pm$ 1.09	-4.302	0.000***
Safety needs	3.17 $\pm$ 1.19	3.61 $\pm$ 1.15	-4.388	0.000***
Social needs	3.22 $\pm$ 1.04	3.46 $\pm$ 1.00	-2.795	0.005**
Respect needs	3.19 $\pm$ 1.06	3.54 $\pm$ 0.97	-3.953	0.000***
Self-fulfillment needs	3.16 $\pm$ 0.93	3.50 $\pm$ 0.91	-4.261	0.000***
Place	3.13 $\pm$ 0.84	3.38 $\pm$ 0.88	-3.397	0.001***
Product service	3.20 $\pm$ 0.98	3.39 $\pm$ 0.92	-2.323	0.021*
Price	3.17 $\pm$ 0.92	3.44 $\pm$ 0.92	-3.361	0.001***
Promotion	3.16 $\pm$ 0.88	3.47 $\pm$ 0.95	-3.900	0.000***
Tourism behavior	3.25 $\pm$ 0.85	3.47 $\pm$ 0.95	-2.769	0.006**

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

As can be seen from the above table, we use t test (the full name is independent sample t test) to study Gender for Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs, Place, Product service, Price, Promotion, Tourism behavior total 10 The difference of items, It can be seen from the above table that different gender samples are all significant for Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs, Place, Product service, Price, Promotion, Tourism behavior ( $p < 0.05$ ), Means that different gender samples have differences in Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs, Place, Product service, Price, Promotion, Tourism behavior.

The summary shows that different Gender samples show significant differences for Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs, Place, Product service, Price, Promotion, Tourism behavior.

The different Age samples do not show significant differences in the 7 items of Physiological needs, Safety needs, Social needs, Respect needs, Product service, Price, and Tourism behavior. In addition, Age samples have a total of Self-fulfillment needs, Place, and Promotion. Three items showed significant differences.

The different Education samples show consistency for Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs, Product service, Price, Tourism behavior, and there is no difference. In addition, the Education sample is significant for two items of Place and Promotion ( $p < 0.05$ ), which means that different Education samples are different for Place and Promotion.

The t different Income samples do not show significant differences for the total of 2 items of Physiological needs and Product service. In addition, the Income samples have a total of Safety needs, Social needs, Respect needs, Self-fulfillment needs, Place, Price, Promotion, Tourism behavior. 8 items showed significant differences.

The different Status samples do not show significant differences for the 7 items of Physiological needs, Safety needs, Respect needs, Self-fulfillment needs, Product service, Price, and Promotion. In addition, Status samples have a total of Social needs, Place, Tourism behavior. Three items showed significant differences.

#### 6. Correlation Analysis

Table 7 Pearson Correlation-1

	Mean	Std. Deviation	Tourism behavior	Physiological needs	Safety needs	Social needs	Respect needs	Self-fulfillment needs
Tourism behavior	3.369	0.910	1					
Physiological needs	3.460	1.152	0.386***	1				
Safety needs	3.409	1.185	0.430***	0.291***	1			
Social needs	3.350	1.025	0.422***	0.274***	0.312***	1		
Respect needs	3.379	1.029	0.456***	0.280***	0.279***	0.279***	1	
Self-fulfillment needs	3.346	0.932	0.470***	0.327***	0.299***	0.348***	0.342***	1

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

As can be seen from the above table, use correlation analysis to study the correlation between Tourism behavior and Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs, and use the Pearson correlation coefficient to indicate the strength of the correlation. Specific analysis shows that: Tourism behavior and Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs are all significant, the correlation coefficient values are 0.386, 0.430, 0.422, 0.456, 0.470, and the correlation coefficient values are greater than 0, It means that there is a positive correlation between Tourism behavior and Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs.

Table 8 Pearson Correlation-2

	Mean	Std. Deviation	Tourism behavior	Place	Product service	Price	Promotion
Tourism behavior	3.369	0.910	1				
Place	3.266	0.871	0.473***	1			
Product service	3.302	0.947	0.502***	0.394***	1		
Price	3.314	0.929	0.516***	0.376***	0.370***	1	
Promotion	3.331	0.932	0.511***	0.429***	0.447***	0.467***	1

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

From the above table, we can use correlation analysis to study the correlation between Tourism behavior and Place, Product service, Price, Promotion, and use the Pearson correlation coefficient to indicate the strength of the correlation. Specific analysis shows that:

All 4 items of Tourism behavior and Place, Product service, Price, Promotion are significant, the correlation coefficient values are 0.473, 0.502, 0.516, 0.511, and the correlation coefficient values are all greater than 0, which means Tourism behavior and Place There is a positive correlation among the four items, Product service, Price, Promotion.

#### 7. Regression Analysis

Table 9 Parameter Estimates (n=535)-1

	Unstandardized Coefficients	Standardized Coefficients	t	p	VIF	R <sup>2</sup>	Adj R <sup>2</sup>	F
	B	Std. Error	Beta					
Constant	0.5030.148	-		3.3960.001***		0.4270.422		F (5,529)=78.846,p=0.000



Table 9 Parameter Estimates (n=535)-1

	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	R <sup>2</sup>	Adj R <sup>2</sup>	F
	B	Std. Error	Beta						
Physiological needs	0.111	0.029	0.141	3.867	0.000***	1.219			
Safety needs	0.155	0.028	0.202	5.557	0.000***	1.223			
Social needs	0.158	0.033	0.177	4.827	0.000***	1.246			
Respect needs	0.208	0.032	0.235	6.457	0.000***	1.225			
Self-fulfillment needs	0.216	0.037	0.221	5.868	0.000***	1.308			

Dependent Variable: Tourism behavior

D-W: 1.916

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

It can be seen from the above table that Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs are used as independent variables, and Tourism behavior is used as the dependent variable for linear regression analysis. As can be seen from the above table, the model formula is:  $\text{Tourism behavior} = 0.503 + 0.111 * \text{Physiological needs} + 0.155 * \text{Safety needs} + 0.158 * \text{Social needs} + 0.208 * \text{Respect needs} + 0.216 * \text{Self-fulfillment needs}$ . The model R square value is 0.427, It means that Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs can explain 42.7% of the changes in Tourism behavior. When performing F test on the model, it is found that the model passes F test ( $F = 78.846, p = 0.000 < 0.05$ ), which means that at least one of Physiological needs, Safety needs, Social needs, Respect needs, Self-fulfillment needs will affect Tourism behavior Have an impact relationship, In addition, the test for the multicollinearity of the model found that all the VIF values in the model are less than 5, which means that there is no collinearity problem; and the DW value is near the number 2, thus indicating that the model does not have autocorrelation. There is no correlation between them, and the model is better.

Table 10 Parameter Estimates (n=535)-2

	Unstandardized Coefficients		Standardized Coefficients	t	p	VIF	R <sup>2</sup>	Adj R <sup>2</sup>	F
	B	Std. Error	Beta						
Constant	0.448	0.144	-	3.105	0.002**	-			
Place	0.203	0.039	0.195	5.193	0.000***	1.350			
Product service	0.231	0.036	0.240	6.374	0.000***	1.367	0.449	0.445	$F(4,530) = 107.928, p = 0.000$
Price	0.256	0.037	0.261	6.896	0.000***	1.378			
Promotion	0.194	0.039	0.199	4.995	0.000***	1.521			

Dependent Variable: Tourism behavior

D-W: 2.034

\*  $p < 0.05$  \*\*  $p < 0.01$  \*\*\*  $p < 0.001$

It can be seen from the above table that Place, Product service, Price, Promotion are used as independent variables, and Tourism behavior is used as the dependent variable for linear regression analysis. As can be seen from the above table, the model formula is:  $\text{Tourism behavior} = 0.448 + 0.203 * \text{Place} + 0.231 * \text{Product service} + 0.256 * \text{Price} + 0.194 * \text{Promotion}$ , the model R square value is 0.449, It means that Place, Product service, Price, Promotion can explain 44.9% of the reasons for the change in Tourism behavior. When the F test is performed on the model, it is found that the model passes the F test ( $F = 107.928, p = 0.000 < 0.05$ ), which means that at least one of Place, Product service, Price, and Promotion will have an impact on Tourism behavior. In addition, a test for the multicollinearity of the model found that all the VIF values in the model are less than 5, which means that there is no collinearity problem; And the D-W value is near the number 2, which shows that the model does not have autocorrelation, and there is no correlation between the sample data, and the model is better.

## Discussion

This study firstly studies the domestic and foreign related literature of health tourism, and analyzes the mode of developing health tourism in domestic and foreign cities. Secondly, through a questionnaire survey of tourists in the

health tourism market of Nanning City, Guangxi, China, to further understand the influencing factors of tourists' behavioral intentions in the health tourism market of Nanning City, China. Finally, the countermeasures and suggestions related to the development of healthy tourism in Nanning are put forward.

This study applies Maslow's hierarchy of needs theory and marketing mix theory to the research in the field of health tourism, and analyzes the impact on tourists' health tourism willingness from 9 dimensions, namely, physiological needs, safety needs, social needs, respectful needs, and self-realization Demand, location, production service, price, marketing method. From the perspective of the 9 dimensions of the impact on tourists' health tourism willingness, tourists' physiological needs, safety needs, respect needs and self-realization needs have a significant positive impact on the willingness of Nanning's health tourism behavior, tourism locations, production services, Product prices and marketing methods also have a significant positive impact on the willingness of Nanning's health tourism behavior.

In recent years, more and more tourists have come to Nanning to experience health and wellness tourism services. The travel willingness and feedback of health tourism customers are important reference factors for business operation and profitability. Therefore, the government departments and enterprises related to the Kangyang tourism industry in Nanning City should pay attention to the Kangyang tourism customers. The research results will also be beneficial to relevant government departments and enterprises.

Government departments can use these results to improve policies related to big health tourism, and by strengthening policy implementation, to promote and attract enterprises to the local health tourism industry development, will help promote the development of "big health tourism". Government departments, such as the Guangxi Tourism Bureau, can use the research results to create and build a Nanning health tourism brand, promote the health tourism service characteristics of Nanning in the tourism exhibition activities in Guangxi and even other provinces in China, and expand the health tourism industry in Nanning. Influence.

Investors should combine the characteristics of local health tourism, introduce professionals in the health industry, and provide professional services for tourists to participate in health tourism activities. According to the conclusions of the research, the marketing methods of health tourism service scenic spots can be determined, and the service management system and quality can be improved to gain the trust of tourists and attract more new customers to experience and travel. Investors' attention to tourists' travel willingness and feedback will help them make business decisions or adjust new marketing strategies and provide updated services.

The research results will provide researchers with tourism-related information and lay the foundation for determining new research topics in the next step. These data results will also help investors and operators in the health tourism industry implement and optimize competitive marketing strategies to attract more tourists to travel and experience the high-quality services of health tourism brands.

### Suggestion

In this research, we established a model to improve the development of Nanning's health tourism industry by investigating tourists' satisfaction with Nanning's health tourism, and discussed the status quo. The research results will help the government, tourism project investors and operators to jointly build and upgrade Nanning's health tourism industry.

1. The government should improve the relevant policy system and optimize the development plan for the big health tourism industry. (Zhang Lan Yue, 2019.) Especially in the development and construction of large health tourism projects after the new crown pneumonia epidemic covid-19, it is necessary to strengthen health and safety protection measures and establish a sound health and safety system.

2. Actively expand the promotion of Nanning's health tourism and increase investment promotion. Nanning city should strengthen publicity, expand publicity channels, organize high-end health tourism forums, seminars and other activities to attract investors in large health tourism projects and increase the popularity of Nanning health tourism.

3. Innovate the health tourism industry model and build a health tourism brand. (Zhang Lan Yue, 2019.) It is conducive to further exerting the advantages of local traditional Chinese medicine resources, promoting the inheritance, innovation and development of ethnic minority medicines such as Miao medicine, Zhuang medicine, Yao medicine, and helping to enhance the effect of Nanning's health tourism brand.

4. Improve the service management system, and improve the quality of supporting services for health tourism. In the process of developing large-scale healthy tourism projects, the government, investors and operators should implement a "triple-party linkage" mechanism to improve the service management system based on the needs and satisfaction feedback of tourists, including providing and improving direct transportation, information sharing, and convenience for the people. And other engineering projects to improve the level and quality of public services.

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