Factors Influencing Female Participation in Sports Tourism Based on Logistic Model

QIAN Fangbin[1,2],   DING Haiyang [3],   SUN Yide [1*]

[1]Zhejiang Yuexiu University, Shaoxing, China
[2] Center for International Education,Philippine Christian University, Manila, Philippines
[3]Shaoxing University Yuanpei College, Shaoxing, China

* Correspondence: 281333328@qq.com

Abstract: With the development of SHE-Economy and the increase demand of health, there has been a considerable increase in the demand for female sports tourism consumption. However, few researches on female sports tourism behaviour have been done in existing research literature. This paper investigates factors influencing female participation in sports tourism. The research objectives were firstly to construct a theoretical model of factors influencing female participation in sports tourism based on 4 dimensions with 31 items, including individual characteristics, tourism behavior characteristics, sports consumption behaviors, and consumption preferences and demand, followed by analyzing intentions of female sports tourism and its influencing factors, then the study try to suggest ways of promoting female participation in sports tourism. Binary logistic regression model was used for data analysis. The findings were indicated that factors, such as age, census register, disposable income per month, frequency of travel, sports tourism experience,etc. have significant effects on female participation in sports tourism.

Keywords: Sports tourism;Logistic Model;female participation; influencing factors

Introduction

With the sustained development of China's social economy and the steady improvement of the living standard, people's health awareness has grown rapidly, and sports consumption has ushered in a new period of rapid development. In January 2019, the State Sports General Administration and the United Nations Development and Reform Commission issued the *Action Plan for Further Promoting Sports Consumption (2019-2020)*, proposing to actively implement the "Sports+" Project to promote the integration and development of sports and culture, tourism, pension, health, education, internet, finance and other industries, and create a new format of sports consumption. On September 4, 2019, the General Office of the State Council successively issued the *Outline of Building a Strong Sports Country* and *Opinions on Promoting National Fitness and Sports Consumption to Promote the High-quality Development of Sports Industry*, once again clearly pointing out that sports industry plays an irreplaceable role in meeting people's growing needs for a better life, and it is necessary to actively expand sports consumption and expand new consumption spaces such as sports fitness, sports watching, sports training and sports tourism. In recent years, with the superposition of multiple factors, such as women's economic independence and equalization, a unique economic circle and economic phenomenon has been formed around women's financial management and consumption, which is defined as "SHE-economy". Women's consumption has become a new consumption trend, and the scale of women in sports consumption market is obvious. According to the data of Qianfan Analysys, in 2018, women's consumption accounted for 43% of "Double Eleven" sporting goods, increased by 10% from 2017. It can be seen that the female sports consumption market is growing rapidly, which is closely related to the development of "SHE-economy". Based on the individual characteristics and consumption behavior of women, a special consumer group, this study makes an empirical analysis of their willingness to participate in sports tourism and its influencing factors by questionnaire survey and binary logistic model, providing data support and countermeasures for the development of sports tourism industry, enriching the research content of sports tourism influencing factors, and providing theoretical support for promoting the development of sports industry.

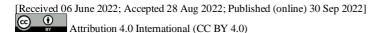## Literature Review
Sports Tourism

Table 1 Basic Statistics

Profile	Category	Frequency	Percentage (%)	Female Frequency	Female Percentage (%)
Gender	Male	102	29.3		
	Female	246	70.7		
Age	18~25	121	34.8	80	32.5
	26~35	91	26.1	65	26.4
	36~45	64	18.4	45	18.3
	46~55	42	12.1	32	13.0
	More than 50	30	8.6	24	9.8
Household	Village	103	29.6	69	28.0
	Cities and towns	245	70.4	177	72.0
Education	Bachelor below	89	25.6	71	28.9
	Undergraduate	220	63.2	146	59.3
	Postgraduate	39	11.2	29	11.8
Occupation	Permanent occupation	152	43.7	110	44.7
	Student	113	32.5	76	30.9
	Non-employees (retired,	36	10.3	33	13.4
Monthly disposable income	2000 yuan and below	86	24.7	55	22.4
	2001-3500 yuan	53	15.2	40	16.3
	3001-5000 yuan	71	20.4	55	22.4
	5001-6500 yuan	61	17.5	50	20.3
	6001-8000 yuan	35	10.1	22	8.9
	More than 8001 yuan	42	12.1	24	9.8
Discretionary time per year	Weekends and holidays	147	42.2	105	42.7
	Besides weekends and holidays, there are other	134	38.5	90	36.6
	Have more free time (such as freelancing, retirement, etc.)	67	19.3	51	20.7

As an activity, tourism originated from the first ancient Olympic Games in 776 BC. During the ancient Olympic Games, contestants and ordinary people from all over Greece went to the venue to participate in or watch the events, forming the earliest phenomenon of sports tourism. Foreign sports tourism research started earlier. As early as 1966, Anthony wrote the article "Sports and Tourism" for the British Sports and Leisure Center Committee. A brief description of the relationship between sports and tourism became an important milestone in sports tourism research. With the rapid development of tourism industry and the continuous emergence of large-scale sports events, sports tourism has ushered in a period of rapid development and become an indispensable part of mass tourism. Intuitively, sports tourism is the product of the combination of "sports" and "tourism". Researchers have defined the concept of sports tourism from different perspectives. Min (2002) defined the views of people in the tourism and sports circles on sports tourism, and considered that sports tourism is a kind of tourism activity that people take part in or watch sports for the purpose or take sports as the main content[1]. Hinch and Higham(2004) compared sports tourism, sports tourists and tourism sports from different dimensions, and concluded that the definition of sports tourism is "a travel activity based on sports in a limited time, and sports activities have their own special comparison rules, and reflect the competitive and fun nature of sports"[2]. Based on above mentioned, the sports tourism proposed in this study refers to the off-site tourism activities that can achieve various purposes such as entertainment, rest, fitness, communication, sightseeing, etc. by watching or participating in various sports activities within a limited time, including sports competitions, ball games, underwater sports, adventure activities, recreation and leisure sports, cross-country sports by car and bike, hunting and horse riding, chess and martial arts, etc.(Zhu, 2000; Wang, et al., 2002; Tan, et al., 2009)[3-5].

Tourism Demand

From an economic point of view, demand refers to the quantity of goods that consumers are willing and able to buy at a given price level in a certain period of time. From the perspective of marketing, demand refers to people's desire to be able and willing to buy a specific product. Thus, the purchasing power and willingness of commodities are the key elements of demand

formation. Based on the demand theory, tourism demand is people's desire to be able to buy certain tourism products in a specific period.

Table 2 Chi-square Test(Gender and Whether You Like to Travel)

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-square	12.133[a]	2	0.002
Likelihood Ratio	12.057	2	0.002
Linear-by-Linear Association	11.148	1	0.001

Table 3 Chi-square Test(Gender and Frequency of Travel)

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-square	2.247[a]	3	0.523
Likelihood Ratio	2.402	3	0.493
Linear-by-Linear Association	1.921	1	0.166

Motivation, leisure time and disposable income constitute the forming elements of tourism demand (Li&Zhang, 2002)[6]. Residents' economic conditions and destination prices have significant impacts on tourism demand(Sevgin,1998; Munoz,2007)[7-8]. Weng et al. (2007) based on the samples of 39 urban residents in China, using factor analysis and grey correlation analysis, concluded that residents' living standard, transportation situation, population size and cultural level are the main factors that affect residents' tourism demand[9]. Niu (1996) pointed out that the population size and the per capita income level of tourist sources are the decisive factors to determine the total demand for tourism[10]. For tourist destinations, the quality level of tourist resources and the distance between tourist sources and tourist destinations should also be taken into account. Among them, tourist demand is directly proportional to the quality level of tourist resources and inversely proportional to the distance between tourist sources and destinations. It can be seen that the influencing factors of tourism demand roughly include the tourist destination itself, the tourist source and the tourists themselves.

Sports Tourism Demand

In recent years, as an interdisciplinary subject, the theoretical system of sports tourism is gradually taking shape, and the research field is expanding day by day. In addition to the exploration of previous concepts, more and more scholars are discussing the characteristics and needs of sports tourists. Dang (2011) took eight sample cities in China as research cases, and found that the disposable income of urban residents was positively correlated with the frequency of participating in sports leisure tourism, especially for participating sports leisure tourism such as skiing tourism[11]. Guo et al. (2015) through the factor analysis of 307 urban residents' participation in sports and leisure tourism in Shanghai, confirmed that the quality of sports and leisure tourism projects and related information dissemination channels have an important impact on urban residents' willingness to participate in sports and leisure tourism in Shanghai[12]. In addition, the richness of tourism resources in the destination, the perfection of tourism facilities and the convenience of transportation also have a significant impact on the willingness of sports tourism(Alexandris&Carroll, 1997; Huang&Huang, 2007)[13,14]. Zhang et al. (2017), by constructing the goal chain model of ice and snow sports consumers' methods, analyzed that the attributes of ice sports, increasing sports skills and enriching social circle are the direct factors to promote ice and snow consumption[15].

Table 4 Chi-square Test(Gender and Do You Like Leisure Sports)

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-square	0.702[a]	2	0.704
Likelihood Ratio	0.725	2	0.696
Linear-by-Linear Association	0.625	1	0.429

Female Sports Tourism

Since 1990s, the female tourism market has become the focus of researchers' attention. Lutz and Ryan(1993) compared and analyzed the similarities and differences between male business travelers and female business travelers from the perspective of travel behavior[16]. Neil (1999) studied the similarities and differences between young women and men's travel motivation and travel preferences[17]. Deng(2003) claims that female tourism has the characteristics of affordability, convenience, difference and high security[18]. The marketing strategy for female tourism consumption market should include the quality and service of high-quality tourism products, reasonable prices and promotion methods suitable for women. Yu (2007) found that the differences of three factors, economy, interest and danger, between men and women are very significant[19]. Fan (2011) discussed women's needs for tourism safety, and explained that safety needs have an important impact on their tourism consumption behavior[20]. Yu and Li (2012) proposed that women's travel motivation is more focused on leisure and relaxation, self-enjoyment and promotion[21]. Zhang (2014) suggests that grasping the characteristics of women's tourism consumption can

often bring larger consumer groups, while compared with men, women's tourism consumption behavior in tourism activities is more perceptual[22]. Therefore, the consumption characteristics and perceived consumption patterns of female consumer groups are different from those of other consumer groups.

In recent years, as an important part of consumer groups, female consumers also have great consumption potential in the field of sports consumption. Research on women's sports consumption mainly focuses on two aspects. The first aspect is the characteristics of women's sports consumption behavior. China's women's sports consumption structure is changing from physical type to enjoyment type(Alexandris&Carroll, 1997)[13], especially in the consumption of body building, leisure, ornamental and sporting goods, which has become the main purpose of modern women's sports consumption (Liu,2016)[23]. Gao and Xia (2020) think that women's sports consumption is emotional, diversified, personalized and leisure[24]. Another is on the influencing factors of women's sports consumption.

on the influencing factors of women's sports consumption. Xie (2007) found that women's participation in sports consumption was influenced by personal income level, sports ability, sports product quality, sports cultural atmosphere and environmental factors through the investigation of intellectual women in 14 cities in China[25]. Wang et al. (2019) took the female consumers involved in ice and snow sports tourism as the research object, and explored the influencing factors of female consumers' participation in ice and snow sports tourism by using the method-purpose chain. It was found that the main influencing paths were word-of-mouth evaluation, reasonable price → pleasant mood → superiority and enjoyment of life, and female consumers had a positive influence on ice and snow sports tourism[26].

Table 5 Chi-square Test(Gender and Experience of Sports Tourism)

	Value	df	Asymp. Sig. (2-slided)	Exact Sig.(s-slided)	Exact Sig.(1-sided)
Pearson Chi-square	1.127[a]	1	0.288	--	--
Continuity Correction b	.869	1	0.351	--	--
Likelihood Ratio	1.111	1	0.292	--	--
Fisher's Exact Test	--	--	--	0.302	0.175
Linear-by-Linear Association	1.124	1	0.289	--	--

Table 6 Chi-square Test(Gender and Willingness to Participate in Sports Tourism)

	Value	df	Asymp. Sig. (2-slided)	Exact Sig.(s-slided)	Exact Sig.(1-sided)
Pearson Chi-square	0.236[a]	1	0.627	--	--
Continuity Correction b	0.120	1	0.729	--	--
Likelihood Ratio	0.238	1	0.626	--	--
Fisher's Exact Test	--	--	--	0.678	0.368
Linear-by-Linear Association	0.235	1	0.628	--	--

Methods and Variables used in the study

When the dependent variable is a categorical variable rather than a continuous variable, linear regression is no longer applicable. As the dependent variable of this study is "whether (or not) you will participate in sports tourism in the next three years", there are two results, i.e. "yes" and "no". Use variables 0 and 1 to assign values to them, indicating willingness as "1" and unwillingness as "0". Dependent variables are classified variables, with values ranging from [0,1]. Logistic regression model has good applicability to predict consumers' wishes, and has almost no restrictions on explanatory variables (Tan&Zeng, 2013)[27]. Therefore, the Binary Logistic regression model is used to analyze the influencing factors of sports tourism participation willingness, and its formula is:

$$L(P) = \ln\frac{P_i}{1-P_i} = \beta_0 + \beta_1 X_1 + ... + \beta_i X_i + \varepsilon_i$$

Where P represents the probability of participating in sports tourism, which is a constant term, the partial regression coefficient of the ith variable Xi, and i is the number of independent variables.

At the same time, this paper uses the questionnaire method as the main way to obtain research data. The questionnaire is divided into two parts: the first part is personal information, including age, education, occupation, personal income level and other items; The second part is the scale with 15 items, including playfulness, competition, price, participation value, safety, service quality, traffic conditions, natural environment, cultural environment, accommodation, catering, skill mastery, policy support, adequate planning space and Likert 5-point scale score. For each item, "Very Disagree, Disagree, Neutral, Agree, Very Agree"

In this survey, online questionnaires were distributed from October to December 2021, and 348 valid questionnaires were collected, including 246 female respondents.

Table 7 Chi-square Test(Gender and Frequency of Sports Tourism)

	Value	df	Asymptotic Sig. (2-sided)
Pearson Chi-square	10.905a	4	0.028
Likelihood Ratio	10.664	4	0.031
Linear-by-Linear Association	8.095	1	0.004

Results and Discussion
Reliability and Validity
This study uses SPSS software to analyze the reliability and validity of the questionnaire data. Cronbachs Alpha coefficient is 0.835, which indicates that the reliability of the research data is high and the questionnaire has certain usability. The KMO coefficient is 0.857, which is greater than 0.85, indicating that the questionnaire has good structural validity. At the same time, the significance of Bartley's spherical test is 0.000, far less than 0.05. We can also think that the questionnaire has good structural validity, and the design and data collection results of the questionnaire are reasonable, so we can use the questionnaire for the following analysis.

Descriptive Analysis
In this survey, there were 348 people, including 102 males and 246 females, accounting for 70.7%. In terms of age group, the majority of people aged 18-25 in the survey are 121, accounting for 34.8%; The number of people over the age of 50 is the least, 30, accounting for 8.6%. According to the household registration, the number of people in cities and towns is mostly 245, accounting for 70.4%, while the number in rural areas is only 103, accounting for 29.6%. According to the statistics of education background, the respondents' major academic qualifications are undergraduate, accounting for 63.2% of 220 people. In terms of occupation, there are permanent occupations and students, accounting for 43.7% and 32.5% respectively. In terms of income, there are more people with incomes of 2,000 yuan or less and 3,501-5,000 yuan, and fewer people with incomes of more than 6,500 yuan. Judging from the discretionary time, most of the respondents' discretionary
time is weekends and holidays, winter and summer vacations, etc. The detailed data can be seen in Table 2. Also, descriptive analysis was conducted on 246 women surveyed, as follows:
In terms of age group, the majority of people aged 18-25 in the survey are 80, accounting for 32.5%, followed by those aged 26-35, with the least number of people over 55, accounting for 8.6%. From the perspective of household registration, the number of women surveyed in urban areas is mostly 177, accounting for 72%, while the number in rural areas is only 69, accounting for 28%. According to the statistics of education background, the surveyed women's major academic qualifications are undergraduate, accounting for 59.3%, more than half of them, followed by 71 people with bachelor below, accounting for 28.9%. In terms of occupation, there are 110 Permanent occupations and 76 students, accounting for 44.7% and 30.9% respectively. In terms of income, there are many people with incomes below 2,000 yuan and 3,501-5,000 yuan, both accounting for 22.4%, while there are few people with incomes over 6,500 yuan. From the point of view of discretionary time, most of the surveyed women's discretionary time is weekends and holidays, winter and summer vacations, etc.
Moreover, According to the chi-square test results (Tables 2-7), the significance levels of sex and whether they like to go out to participate in tourism activities and leisure sports are less than 0.05, which are 0.002 and 0.028 respectively. It can be seen that gender is related to whether you like to go out to participate in tourism activities and the frequency of leisure sports.

Analysis of Factors Influencing Female Participation In Sports Tourism
According to the Table 8, 76% of female are willing to participate in sports tourism in the next three years, and only 24% are unwilling. First of all, from the items of demographic characteristics, including gender, age, household registration, education, occupation, income, etc., compared with the percentage of willingness to (still) participate in sports tourism in the next three years, plus the significance level of chi-square test, it is considered that if the significance level is less than 0.05, it will have an impact on whether (still) participate in sports tourism. That is, age, household registration, monthly disposable income, whether you like to go out to participate in tourism activities, the frequency of annual trips, the per capita consumption of single trip, whether you like to participate in various leisure

Table 8 Influence of demographic characteristics on whether (still) they will participate in sports tourism in the next 3 years.

Demographic Characteristics		Will you (still) be willing to participate in sports tourism in the next 3 years (%)		Test the significance level of difference
		NO	YES	
Gender	Male	21.6%	78.4%	0.368
	Female	24.0%	76.0%	
Age	18~25	28.9%	71.1%	0.023
	26~35	20.9%	79.1%	
	36~45	25.0%	75.0%	
	46~55	4.8%	95.2%	
	More than 50	30.0%	70.0%	
Household register	Village	34.0%	66.0%	0.002
	Cities and towns	18.8%	81.2%	
Education	Bachelor below	77.4%	23.6%	0.458
	Undergraduate	24.5%	75.5%	
	Postgraduate	15.4%	84.6%	
Occupation	Permanent occupation	17.8%	82.2%	0.181
	Student	27.4%	72.6%	
	Freelance	25.5%	74.5%	
	Non-employees (retired, unemployed, unemployed, etc.)	30.6%	69.4%	
Monthly disposable income	2000 yuan and below	33.7%	66.3%	0.029
	2001-3500 yuan	22.6%	77.4%	
	3001-5000 yuan	23.9%	76.1%	
	5001-6500 yuan	18.0%	82.0%	
	6001-8000 yuan	25.7%	74.3%	
	More than 8001 yuan	7.1%	92.9%	
Discretionary time per year	Weekends and holidays	21.1%	78.9%	0.692
	Besides weekends and holidays, there are other holidays (including paid holidays, winter and summer vacations, etc.)	25.4%	74.6%	
	Have more free time (such as freelancing, retirement, etc.)	23.9%	76.1%	
Do you like travel?	Dislike	70.0%	30.0%	0.000
	Common	34.8%	65.2%	
	Like	13.0%	87.0%	
The main source of tourism information acquisition	Friends and relatives introduce	27.2%	72.8%	0.806
	Network	21.8%	78.2%	
	Newspapers and magazines	26.5%	73.5%	
	Travel agency or scenic spot publicity	20.0%	80.0%	
	Other	.0%	100.0%	
The frequency of traveling every year	Basically do not travel.	46.3%	53.7%	0.003
	Once or twice a year	19.9%	80.1%	

	3-4 times a year	21.7%	78.3%	
	More than 4 times a year	17.4%	82.6%	
	Within 500 yuan	53.6%	46.4%	
Per ca pita consumption of single trip	51-1500 yuan	31.3%	68.8%	
	501-2500 yuan	19.0%	81.0%	0.000
	501-3500 yuan	14.7%	85.3%	
	More than 301 yuan	11.8%	88.2%	
Do you like to participate in leisure sports ?	Dislike	61.1%	38.9%	
	Common	33.5%	66.5%	0.000
	Like	10.3%	89.7%	
Frequency of participating in leisure sports	Basic inactivity	51.4%	48.6%	
	No fixed rule	28.3%	71.7%	
	1-2 times/week	15.1%	84.9%	0.000
	3-4 times/week	9.8%	90.2%	
	More than 5 times/week	12.9%	87.1%	
Average annual expenditure related to sports	Within 100 yuan	50.0%	50.0%	
	101 yuan -500 yuan	31.5%	68.5%	
	501-1000 yuan	16.9%	83.1%	
	1001-2000 yuan	9.5%	90.5%	
	2001 yuan -5000 yuan	3.1%	96.9%	
	More than 500 yuan	5.6%	94.4%	
Do you have any experience in sports tourism?	No	47.1%	86.6%	
	Yes	13.4%	76.7%	0.000
One of the main reasons for participating in sports tourism	Keep fit and improve health.	22.7%	77.3%	
	Make friends and deepen feelings.	36.2%	63.8%	
	Reduce stress and relieve mood.	23.3%	76.7%	
	Increase the knowledge of sports culture and sports skills.	8.3%	91.7%	
	Get new experiences and enrich your spare time.	21.2%	78.8%	0.230
	Seek excitement and satisfy curiosity.	10.0%	90.0%	
	Sense of superiority (such as sending friends, weibo, etc.	25.0%	75.0%	
	Other	50.0%	50.0%	

sports activities, the frequency of leisure sports, the average annual expenditure related to sports, and whether you have experience in sports tourism have significant influences on your willingness to participate in sports tourism. However, gender, educational background, occupation, free time each year, the main source of tourism information and the main reason for participating in sports tourism have no significant influence on the willingness to participate in sports tourism.

Also, taking whether or not you are willing to participate in sports tourism in the next three years as the dependent variable and the scale data as the independent variable, the logistic regression is established, and the analysis shows that the competitiveness, price, transportation, accommodation, catering, mastering skills, sufficient free planning time, etc. of the project have negative influences on the willingness to participate, while other influencing factors have positive influences on the willingness to participate.

At the same time, the regression model is modified by factor analysis (Table 9), and a number of related variables or indicators are integrated into a few independent comprehensive variables or indicators. The factors are named according to the proportion and characteristics of variables in each factor, so as to better summarize the indicators contained in this comprehensive factor. In this paper, principal component analysis is used to extract the first three factors with eigenvalues greater than 1, and the explanations of the three factors to the whole population account for 25.00%, 18.87% and 18.07% respectively.

Table 9 Model Results

Variables	B	S.E,	Wals	df	Sig.	Exp (B)
Types	0.370	0.231	2.575	1	0.109	1.448
Entertaining	0.191	0.236	0.654	1	0.419	1.210
Competitive	-0.163	0.189	0.738	1	0.390	0.850
Price	-0.205	0.238	0.741	1	0.389	0.815
Participation value	0.378	0.259	2.135	1	0.144	1.460
Security	0.059	0.266	0.049	1	0.824	1.061
Quality of service	0.445	0.287	2.408	1	0.121	1.561
Transportation	-0.507	0.276	3.378	1	0.066	0.603
Natural environment	0.453	0.320	2.006	1	0.157	1.573
Cultural environment	0.259	0.290	0.797	1	0.372	1.296
Accommodation	-0.519	0.297	3.055	1	0.081	0.595
Catering	-0.231	0.297	0.603	1	0.437	0.794
Skill	-0.170	0.249	0.466	1	0.495	0.843
Policy support	0.196	0.260	0.569	1	0.451	1.217
Planning space	-0.272	0.261	1.085	1	0.298	0.762
Constant	-0.116	0.844	0.019	1	0.891	0.890

The proportion of each influencing factor in the principal component is obtained from the rotation matrix, and the results are as follows (Table 10). First principal component contains the information of the original variable project types, entertaining, competitive, skill mastery, participation value and sufficient planning space, so first principal component can be used as a product factor. The second principal component includes the original variables of price, transportation, accommodation and catering, so it can be used as a facility factor. The third principal component includes policy support, security, service quality, natural environment and cultural environment, so it can be used as a management factor.

Table 10 Rotation Component Matrix

Variables	Composition		
	1	2	3
Types	0.602		
Entertaining	0.494		
Competitive	0.650		
Skills	0.777		
Participation value	0.581		
Planning space	0.435		
price		0.500	
Transportation		0.582	
Accommodation		0.808	
Catering		0.848	
Policy support			0.622
Security			0.809
Quality of service			0.711
Natural environment			0.687
Cultural environment			0.688

Conclusions and Recommendations
Conclusion
Through empirical research on the influencing factors of participating in sports tourism, this paper takes whether or not to participate in sports tourism in the next three years as the dependent variable, introduces 31 independent variables from four aspects: demographic characteristics, tourism behavior characteristics, sports consumption behavior, consumption preference and demand, builds a logistic regression model, and analyzes the influencing factors of sports tourism participation demand. Generally speaking, in terms of demographic characteristics, age, household registration and monthly disposable income have a significant impact on tourists' willingness to participate in sports tourism, but educational background, occupation and annual disposable time have no significant impact on tourists' willingness to participate in sports tourism. In terms of tourism characteristics, whether tourists like to go out to participate in tourism activities, the frequency of traveling every year, and the per capita consumption of a single trip have significant influences on tourists' willingness to participate in sports tourism. In terms of sports consumption behavior, whether or not you like to participate in various leisure sports activities, the frequency of participating in leisure sports, the average annual expenditure related to sports, and whether or not you have experience in sports tourism have significant influences on whether or not you (still) want to participate in sports tourism. In terms of consumption and demand, competition, price, transportation, accommodation, catering, mastering skills, and sufficient free planning time of the project have negative effects on the willingness to participate, while the types, entertaining, participation value, safety, service quality, natural environment, cultural environment, and policy support have positive effects on the willingness to participate.

Recommendations
1)	Integrate resources to create diversified sports tourism products. According to the demographic characteristics, tourists of different ages, backgrounds and educational background will have different hobbies, therefore, the choice of sports tourism projects will be different. It is necessary to keep the richness and innovation of sports tourism activities, promote the diversification and personalized development of sports tourism products, and constantly improve the attraction and vitality of sports tourism. From the target point of view, tourists of different ages, different spending power, different occupations and preferences should be divided into different levels, and targeted services should be provided while the differences of product levels should be strengthened. For example, for middle-aged and young residents, more endurance and exciting projects like mountain climbing and cross-country can be developed. Compared with female residents, more leisure and fitness programs such as riding and boating should be developed to meet the diverse needs of tourists. In addition, through the integration of China's tourism natural resources and cultural resources, combined with all kinds of sports tourism projects to enhance the added value of tourism products, realize the diversification and sustainable development of sports tourism projects, and realize a virtuous circle of win-win development.

2)	Strengthen the infrastructure construction of sports tourism destinations. According to the second factor obtained from the study, it can be seen that auxiliary services also have an important impact on the demand of sports tourism products. Sports destinations should reasonably arrange and improve the planning and construction of auxiliary facilities, and take into account the multiple needs of tourists, such as leisure and entertainment, accommodation, transportation, etc., so as to better attract tourists and further penetrate into consumption.

3)	Improve management and service quality. Tourism is a participatory and experiential project. In the construction of sports tourism destination, we should not only improve the fun and participation of the project, but also standardize its services to ensure its safety. Sports tourism-related enterprises and institutions should strengthen their service awareness, improve the enterprise service system, conduct regular training and assessment of service personnel, set up and improve the customer supervision and complaint system, and make timely improvements. On the other hand, in order to ensure a good service level for sports tourism projects, sports tourism departments should formulate corresponding policies and standards to manage the tourism products of their enterprises, improve the service quality and level, protect the legitimate rights and interests of consumers, promote the standardized development of sports tourism-related enterprises, and improve the safety management awareness of related enterprises.

REFERENCES

[1]. Min, J.(2020) Sports tourism and its definition. Journal of Wuhan Institute of Physical Education, 06, 4-6.

[2]. Hinch, T.,& Higham, J. (2004) . Sport Tourism Development.Channel Vies Publications.

[3]. Zhu, J. (2000). A Preliminary Study on Sports Tourism Project. Sports and Science, 21 (2),25 -27.

[4]. Wang, D., Lin, L., & Liu, C. (2002). Sports tourism market characteristics and product development. Tourism Tribune, 17(1),49-53.

[5]. Tan, S., Liu, C., Zhang H.(2009). Comparative analysis of sports tourism research at home and abroad. Journal of Shanghai Institute of Physical Education, 33(04),54-58.

[6]. Li, X., & Zhang, H. (2002). Tourism Economics-Theory and Development. Dalian: Dongbei University of Finance and Economics Press.

[7]. Sevgin, A.(1998). A compact econometric model of tourism demand for Turkey.Tourism Management,19(1), 99-102.

[8]. Munoz, T. G.(2007).German demand for tourism in Spain. Tourism Management,28(1),12-22.

[9]. Weng, G., Xu, X., & Shang, X. (2007). Analysis on the influencing factors of domestic tourism demand of urban residents in China. Urban Issues, 04, 31-35.

[10]. Niu, Y. (1996). Study on the Spatial Relationship between Tourism Supply and Demand. Journal of Geographical Sciences, 01, 80-87.

[11]. Dang, N. (2011). Suburban Recreation Space in Leisure Times: A Study of ReBAC. China: Shanghai People's Publishing House.

[12]. Guo, A., Sun, X., & Wang, C.(2015) .Research on the influencing factors of urban residents' participation in sports leisure tourism in Shanghai. Sports Research, 36(04):26-31.

[13]. Alexandris, K., & Carroll, B. (1997). An analysis of leisure constraints based on different recreational sport participation levels: Results from a study in Greece. Leisure Sciences,19(1):1-15.

[14]. Huang, Y., & Huang, Z.(2007). An Empirical Study on the Leisure Tourism Demand of Urban Residents-Taking Nanjing as an Example. Human Geography, 22(3): 60-64.

[15]. Zhang, R., Li, L., & Che, W. (2017). Qualitative research on the influencing factors of ice and snow sports tourism consumption decision. Journal of Physical Education, 24(06):54-60.

[16]. Lutz, J.,& Ryan, C.(1993). Hotels and the businesswoman: an analysis of businesswomen's perceptions of hotel services. Tourism Management，14(5) : 349 -356.

[17]. Neil, C.(1999). A study of gender differences: young tourism behavior in a UK coastal resort. Tourism Management，20 (2) : 223-228.

[18]. Deng, M., & Li, F. (2003). China's female tourism consumption market. Social Scientists, 6: 97-100.

[19]. Yu, S. (2007). Factors influencing the participation of different groups in sports tourism in China . Journal of Shanghai University of Sport, 03:24-28.

[20]. Fan, Y. (2011). Research on Women's Tourism Safety Demand and Consumption Behavior. Hubei Social Sciences, 08:95-97.

[21]. Yu, P., & Li, B. (2012). Chinese female tourism consumption market characteristics and development path choice. Consumer Economy, 28(02):67-70+74.

[22]. Zhang, Y. (2014). Research on marketing strategy based on women's tourism consumption behavior. Price Monthly, 9: 61-64.

[23]. Liu, D.(2016). Evolution of Women's Sports Consumption Mode and Analysis of Modern Consumption Characteristic. Sports and Science, 37 (6): 86-93.

[24]. Gao, Q., Xia, C.(2020). Main problems and countermeasures of women's sports consumption from the perspective of "SHE-economy". Sports Culture Guide, 01:87-92.

[25]. Xie, X. (2007). Analysis of influencing factors of sports consumption of intellectual women in China and marketing strategies. Journal of Beijing Sport University, 01:25-26+32.

[26]. Wang, H., Zhang, R., Li, L., & Zhou, W. (2019). Research on the influencing factors of women's participation in ice and snow sports tourism. Journal of Beijing Sport University, 42(03):44-52.

[27]. Tan,H., & Zeng, W.(2013). Influence analysis for logistic regression model. Journal of Applied Statisticsand Management,32(3),476-485.