

Research on Influencing Factors of Tourism Consumption of Urban Families in China

Empirical Analysis Based on China Family Panel Studies (CFPS)

Dan Wang

College of Tourism
Sichuan Agricultural University
Chengdu, China

Genjin Sun*

College of Tourism
Sichuan Agricultural University
Chengdu, China

*Corresponding Author

Abstract—Tourism is not only the top five happiness industries, but also a boost to the national economy. Tourism consumption plays a vital role in the development of tourism. Based on the data from the 2016 China Family Panel Studies (CFPS), this paper establishes a multiple linear regression model and analyzes the influencing factors of urban household tourism consumption expenditure. The empirical results show that family income, family assets, the age, education level and Internet usage of the head of household have significant positive effects on household tourism consumption. However, the size of the household population has a significant negative impact on household tourism consumption. Besides, male heads of households are more inclined to reduce household tourism spending than female heads of households. Therefore, it is necessary to improve the income level, education level and Internet penetration rate of urban residents so as to effectively increase the tourism consumption of urban families in China and promote economic development. In addition, tourism enterprises should combine with other industries to expand the family tourism market and promote the development of tourism by innovating tourism products and expanding online marketing publicity.

Keywords—household tourism consumption; urban families; tourism; Internet; the head of household

I. INTRODUCTION

In recent years, China's tourism industry has developed rapidly, and has now become a strategic pillar industry of the national economy, which has greatly promoted the social and economic development of China. Tourism consumption has increasingly become the focus of public attention, and it has even been cultivated as a new economic growth point in some areas. In China's tourism income, the tourism consumption of urban families accounts for the vast majority of China's tourism income. Urban families are also the main body of China's tourism market. Therefore, the study of tourism consumption expenditure of urban families, especially the research on the influencing factors of tourism consumption of urban families, is conducive to further understanding China's tourism market, optimizing tourism products and predicting the development trend of tourism.

At the same time, most of the current domestic researches on household tourism consumption expenditure in China are from a qualitative perspective, and few literatures have carried out empirical research. Moreover, the empirical research is mainly based on macro data or data from specific provinces, and lacks certain representativeness. Therefore, this paper uses the nationally representative micro-family data, China Family Panel Studies (CFPS) data in 2016, and uses the multiple linear regression model quantitative research method to analyze the influencing factors of urban household tourism consumption expenditure from the family level and the individual level. This paper will provide a reference for the formulation of policies related to urban family tourism in China, and also provide a decision-making basis for market segmentation and marketing promotion in the tourism industry, thus promoting the high-quality development of China's tourism industry.

II. RESEARCH DESIGN AND METHODS

A. Data Sources

This paper uses stata13.0 to process the collected data. The data in this paper are all from China Family Panel Studies (CFPS) data in 2016. The target sample size of CFPS in 2016 is 14,033 households, and the subjects of the survey are all households in 25 provinces (cities, autonomous) regions in China and all family members in the sample households. Therefore, CFPS samples are nationally representative. The main questionnaires of CFPS are divided into five categories, including village residence questionnaire, family member questionnaire, family questionnaire, children questionnaire and adult questionnaire. The data used in this paper mainly come from family questionnaire and adult questionnaire. Among them, the related problems of personal characteristics exist in the adult questionnaire, and in this paper, the financial respondents in CFPS data are defined as heads of households. Because this article wants to study the influencing factors of urban household tourism consumption in China, the sample is screened. The specific ideas are as follows: firstly, the rural family samples and the family samples without tourism consumption expenditure are deleted; secondly, the personal characteristics of the financial

respondents are screened out and matched with the family characteristics; finally, the samples with missing data are removed.

B. Research Variables

1) *Explained variable*: The explained variable of this article, that is, the measurement of household tourism consumption behavior mainly uses family tourism expenditure, expressed by *Intouexp*.

2) *Explanatory variable*: The explanatory variables in this paper are divided into two aspects, including family characteristics and personal characteristics.

a) *Family characteristics*: Income and assets play an important role in people's travel needs. Only when economic conditions are relatively abundant will people have demand for tourism. And, usually, family travel is a trip with all members of the family. Therefore, this paper believes that income, assets, and family members may have an impact on household tourism consumption. This paper selects family income, family assets and family population size as the research variables of family characteristics, which are expressed by *Income*, *Asset* and *Size* respectively.

b) *Personal characteristics*: Studies have shown that the gender, age, and marital status of the head of household have an impact on household tourism consumption. And the degree of education affects people's travel decisions by affecting people's perceptions. In addition, with the development of information technology, the impact of the

Internet on people's consumption decisions is also growing. Therefore, this paper believes that the level of education and Internet use may also have an impact on household tourism consumption. In this paper, the gender, age, marital status, educational level and Internet usage of the head of household are selected as the research variables of personal characteristics, which are respectively expressed by *Gender*, *Age*, *Marital*, *Education* and *Internet*. Among them, the Internet usage of the head of the household refers to whether the household owner uses the Internet as a dummy variable, and measures whether the residents access the Internet according to the two questions of "Do you have a computer online?" and "Do you move the Internet?". If the head of the household has access to the Internet, the variable is 1, otherwise it is 0.

C. Handling of Variables

Considering that the variables of gender, marital status, education level, Internet usage and family population size are all in single digits, and the absolute value difference between them and the data of family income, family asset variables and tourism expenditure variables is too large, which affects the effectiveness of the model construction, the natural logarithm is taken for the three continuous variables of tourism consumption expenditure, family income and family asset, respectively expressed by *Intouexp*, *lnincome* and *lnasset*, and the specific treatment is shown in "Table I".

TABLE I. DESCRIPTIVE STATISTICS OF MAIN VARIABLES

Variable Definitions	Variable Assignment	Mean	Std. Dev.
Household tourism consumption	Family travel expenditure, taking logarithm, expressed in <i>Intouexp</i>	7.900	1.386
Family income	The total net income of the family, taking logarithm, expressed by <i>lnincome</i>	11.486	0.790
Family assets	The total value of cash and deposits, expressed by <i>lnasset</i>	10.924	1.581
Family population size	The number of people living together in the family, expressed in <i>size</i>	3.285	1.563
Age of the head of household	The age of the interviewee, expressed in <i>age</i>	45.521	14.783
Gender of the head of household	The gender of the interviewee, "male" assigned a value of 1, "female" assigned a value of 0, expressed in <i>gender</i>	0.488	0.500
Marital status of the head of household	The current marital status of the interviewee, expressed in <i>marital</i>	2.088	0.745
Education level of the head of household	The highest educational level of the interviewee in the latest survey, expressed in <i>education</i>	3.879	1.401
Internet usage of the head of household	Whether it is online, "yes" assigned a value of 1, "no" assigned a value of 0, expressed in <i>Internet</i>	0.745	0.436

^a. Data from the Institute of Social Science Survey (ISSS).

D. Model Setting

In this paper, a multiple linear regression model is established to quantitatively analyze the tourism consumption expenditure of urban families in China. Among

$$Intouexp = C + \beta_1 lnincome + \beta_2 lnasset + \beta_3 size + \beta_4 age + \beta_5 gender + \beta_6 marital + \beta_7 education + \beta_8 Internet + \epsilon$$

them, the tourism consumption expenditure of urban families is the explained variable of this study, and the variables related to family characteristics and personal characteristics are the explanatory variables of this study. The mathematical expression of the model is as follows:

III. EMPIRICAL RESULTS

From “Table II”, it can be seen that the F-statistic for testing the significance of the whole equation is 70.35, and the corresponding p-value of the F-statistic is $0.000 < 0.05$ at

$\alpha=0.01$ significance level, which indicates that the regression equation as a whole is highly significant.

TABLE II. ESTIMATION RESULTS OF MULTIPLE REGRESSION

Variable	Coefficient	t	Sig.
constant	-1.167***	-2.64	0.008
lnincome	0.569***	13.45	0.000
lnasset	0.127***	6.27	0.000
size	-0.074***	-3.77	0.000
age	0.018***	7.12	0.000
gender	-0.173***	-2.99	0.003
marital	-0.061	-1.47	0.141
education	0.163***	6.84	0.000
Internet	0.207**	2.46	0.014
R ²	0.2406		
Adj R-squared	0.2372		
F value	70.35		

a. *** and ** indicate significant levels at 1% and 5%, respectively.

By analyzing the p-value corresponding to the t-statistic, it can be found that the p-values of the t-statistics of the explanatory variables lnincome, lnasset, size, age, gender, and education are all less than 0.01, so they are all significant at the 1% level. Among them, the regression coefficient of the variable lnincome is 0.569, which indicates that for every 1% increase in the net income of the family, the family tourism consumption expenditure increases by 0.569%. The regression coefficient of variable lnasset is 0.127, which indicates that for every 1% increase in household cash and total savings, household tourism consumption expenditure increases by 0.127%. However, the regression coefficient of variable size is -0.074, which indicates that the family population size has a negative correlation with the family tourism consumption expenditure. Besides, the regression coefficient of the variable gender is also negative, indicating that male heads of households are more inclined to reduce household tourism spending than female heads of households. The regression coefficient of variable education is positive, which indicates that the level of education is positively correlated with family tourism consumption.

In addition, the regression coefficient of explanatory variable Internet is 0.207, which is significant at the level of 5%, indicating that the use of Internet can increase household tourism consumption expenditure. The p-value corresponding to t-statistic of explanatory variable marital is $0.141 > 0.05$, which indicates that the regression coefficient of variable marital is not significant. In other words, the family tourism consumption expenditure has nothing to do with the marital status of the head of the household.

IV. CONCLUSION AND SUGGESTIONS

A. Conclusion

Tourism, as the first of the five happiness industries, has developed very rapidly in recent years and is also a boost to the national economy. The analysis of household tourism consumption can provide theoretical and empirical basis for the development of China’s tourism industry. This paper

uses the 2016 China Family Panel Studies (CFPS) data, which is representative of the whole country, to quantitatively analyze the influencing factors of urban family tourism consumption expenditure. The research conclusion is conducive to our in-depth understanding of the tourism market, to further optimize the tourism segment market, and to provide reference for relevant policy formulation.

Through the empirical results, we have the following conclusions: First, family income and family assets significantly promote household tourism consumption expenditure, and household income is the most important factor affecting urban household tourism consumption in China. Second, the larger the family size, the less the household tourism consumption expenditure, and the increase in family population will lead to a decrease in household tourism consumption. This may be due to an increase in the family's population, which leads to an increase in other household expenditures, and the occupation of tourism expenses. At the same time, the more people there are, the greater the risk of traveling, thus reducing the willingness of families to travel. Third, the higher the education level of the head of the household, the more it can significantly promote the family's tourism consumption expenditure, because the highly educated have a stronger curiosity and are more likely to accept other new things. They are more willing to expand their horizons and broaden their knowledge through tourism. In the meantime, they have higher requirements on the quality and connotation of tourism products. For example, if they choose high-star hotels, they naturally need to pay higher tourism consumption. Fourth, the older the head of the household is, the greater the family's tourism consumption expenditure will be. Female heads of households can promote household spending on tourism, because women are more willing to buy in the process of tourism. Fifth, the use of the Internet can increase the household's tourism consumption expenditure, because urban residents use the Internet to intentionally or unintentionally obtain tourist information, and improve the willingness of urban families to travel. Sixth, the greater the family income is, the more family assets will

be, the higher the education level will be, the higher the use of the Internet will be, and the higher the level of household tourism consumption.

B. Suggestions

1) *Raise the level of family income and innovate family tourism products:* From a national point of view, China's tourism economy plays an increasingly important role in the development of the national economy. Urban families are the main body of the tourism market, and their demand for tourism consumption is very strong. The level of family income is the most important factor affecting the tourism consumption expenditure of urban families. The higher the income, the higher the tourism consumption expenditure. Therefore, increasing family income is not only conducive to promoting the development of tourism, but also can expand domestic demand and promote consumption, thus promoting China's economic transformation. At the same time, there is a significant positive correlation between household assets and household tourism consumption expenditure. The government should take various measures to protect the household assets of residents. From the perspective of enterprises, tourism enterprises can cooperate with financial institutions in tourist source areas to segment the market according to the local family asset level, and propose different tourism products, such as installment tourism products for high-income and high-asset families.

2) *Improve the education level of the people and pay attention to the family tourism market segment:* Educational and cultural level is also the main factor affecting household tourism consumption expenditure, because it will not only affect the family's willingness to travel, but also affect the family tourism demand and the choice of tourism quality. From the national point of view, the country should increase investment in education, improve educational facilities, optimize the allocation of teachers, and strive to improve the education level of all citizens. And then, the improvement of the education level of tourist source areas will obviously result in an increase in the level of household tourism consumption in the region. From the perspective of enterprises, tourism enterprises should investigate the tourism needs of urban families with different academic qualifications, carry out market segmentation, and provide tourism products and services of different grades. For example, families with high academic qualifications have higher requirements for the quality and connotation of tourism products. For these families, tourism enterprises can provide tourism products such as theme cultural tours, research tours, special eco-tourism, etc.

3) *Improve Internet penetration and expand online marketing efforts:* The use of the Internet has obvious influence on the travel intention and tourism consumption of urban families. From the national perspective, we need to further improve the network infrastructure and popularize Internet education so as to increase the Internet penetration

rate. In the meantime, it is also necessary to promote the integration of the Internet and tourism so as to facilitate the acquisition of tourism information. From the perspective of tourism enterprises, enterprises should pay attention to network marketing, expand publicity, and constantly optimize the aesthetics of the website interface. Moreover, they should handle the intersection of "tourism" and "technology" and improve the Internet travel platform. Furthermore, they should start from the connection, production and marketing links, contact and understand the target tourism market through "mobile". What's more, they ought to reorganize the online "destination" tourism commodities and maximize the utilization of existing tourism resources.

REFERENCES

- [1] Z. Chuan-Yong and W. Feng-Long, "Housing wealth and tourism consumption-is it feasible to enhance emerging consumption at the age of high housing prices?" *Finance & Trade Economics*, vol. 38, pp. 83-98, March 2017.
- [2] H. Ting and R. Shi, "Analysis of the impact of air quality on household financial asset allocation," *Journal of Financial Development Research*, vol. 2, pp. 53-57, February 2018.
- [3] Z. Jin-Bao, "Economics conditions, demographic characteristic, risk preference and tourism consumption of urban household: based on a survey of 24 cities in China," *Tourism Tribune*, vol. 5, pp. 31-39, May 2014.
- [4] Y. Hang-Jian, S. Wei and Y. Bi-Yun, "The effect of family income and population structure on tourism expenditure," *Consumer Economics*, vol. 32, pp. 38-46, April 2016.
- [5] Z. Guang-Su and S. Pu-Yang, "The effect of Internet usage on Chinese residents' happiness:evidence from CFPS," *Nankai Economic Studies*, vol. 3, pp. 18-33, March 2017.
- [6] Z. Yan, M. Emily and Q. Hai-Lin, "An explorative analysis of Shanghai residents' outbound travel preferences during global financial crisis," *Anatolia An International Journal of Tourism & Hospitality Research*, vol. 3, pp. 315-327, March 2012.