ISSN: 0974 - 7435

# 3014 BioTechnology

An Indian Journal

FULL PAPER

BTAIJ, 10(16), 2014 [9390-9397]

# The elderly travel motivation empirical research based on the theory of push and pull

Xia Xiao-jing<sup>1</sup>, Guan Hong-zhi<sup>1</sup>, Li Chang-fu<sup>2</sup>, Han Yan<sup>1</sup>, Zhao Xin<sup>3</sup>, <sup>1</sup>Beijing Key Lab of Transportation of Engineering, Beijing University of Technology, Beijing 100124, (CHINA) <sup>2</sup>Astronaut center of China, Beijing 100094, (CHINA) <sup>3</sup>Academy of Transportation Science, Ministry of Transport, Beijing 100029, (CHINA)

E-mail: xiaxiaojing2003@126.com

## ABSTRACT

With the continued economic development, tourism is becoming an important way to improve the life quality of the elderly. The purpose of this paper is to identify the major travel motivation of the elderly through investigation and analysis, and to identify the main factors affecting the travel motivation. With the theory of push and pull, using the factor analysis, four push motivation factors were found: " remedy the regret", "the motivation of love", "self-improvement" and "the pursuit of beauty vary and perfect life"; and four pull motivation factors were found: "destination image", "live-line policing services", "natural and cultural resources" and "the cost and crowding degree"; where "remedy the regret" and "destination image" are the main motivations for push-pull factors. By T-test and one-way analysis of variance(ANOVA), this research has concluded that age, educational level, living with family, occupation, income are all significantly affecting travel motivations of the elderly, while gender has no significant impact on travel push-pull motivation of the elderly.

# KEYWORDS

Push-pull theory; Factor analysis; The elderly; Travel motivation; ANOVA.

© Trade Science Inc.



### INTRODUCTION

According to the United Nations general standard, when the population of a country or a region aged over 60 reaches or exceeds 10% of the total population, or the population aged over 65 reaches or exceeds 7% of the total population, it indicates that the country or the region has entered a stage of aging society. According to the sixth census data of China, the population aged over 60 has reached 13.26% of the total population, and aged over 65 has reached 8.87% of the total population<sup>[1]</sup>. China has entered aging society.

In recent years, with the improvement of living standards and medical measures, the consumers' attitudes of the elderly are notedly changing. Tourism is becoming an important part of the elderly life. However, the tourism infrastructure, the travel environment and services of China are not satisfactory. The travel demand of the elderly can't be fully satisfied. Therefore, to study the elderly travel demand, to improve the quality of the elderly travel service and to attract more elderly to travel, become one of the most important topic.

Pearce & Caltabiano (1983) pointed out that tourist's travel behavior was determined by the potential travel motivation<sup>[2]</sup>. Therefore, in order to meet the elderly travel demand better, it is necessary to study their travel motivation. However, the current research on the elderly travel mostly focus on the market research strategies for the purpose of market development rather than the in-depth study of the travel motivation, the factors influencing travel or travel behavior of the elderly from the perspective of demand.

From this point of view, the paper will focus on the travel motivation of the elderly, through the empirical study and analysis to identify the travel motivation factors, and to find out the main factors affecting travel motivation, which can provide a reference for a more in-depth analysis of the elderly travel demand and improve the relevant technology.

### LITERATURE REVIEW

### The elderly travel motivation

Travel motivation is the internal impetus which promotes people to carry out the travel activities, with the function of activation, pointing, maintaining and adjusting the people's behavior. The motivation can make the travel activities happen and make it towards the goal. XIE Yanjun define travel motivation as follows: it is a psychological motive which forcing action and the driving force of tourism operations, and it can be precipitated by the travel demand and affected by social concepts and standards, and it is a inner impetus which directly stipulate the specific travel behavior.

Researches about elderly travel motivation can be traced back to the 1980s. Guinn analyzed the elderly living in Texas and revealed that the elderly travel motivations include rest and relax, social, exercise, study, seek excitement and homesickness<sup>[3]</sup>. Anderson and Langmeyer compared the similarities and differences of travel motivation between the under-50 and over-50 travelers, and concluded that both groups were drawn to relax and visit relatives and friends as the main travel motivation, but over-50 travelers preferred to travel to historical sites and were likely to choose to travel during off-peak times<sup>[4]</sup>. Romsa and Blenman concluded that the elderly tended to visit relatives and friends as their travel motivation<sup>[5]</sup>. Thomas and Butts used the qualitative and quantitative methods on the elderly travel motivations and concluded that increasing knowledge, improving the independent ability and strengthening social interaction were the most three travel motivations<sup>[6]</sup>. You and OpLeary divided British elderly tourists into three categories: passive type, enthusiasm type and culture type, and pointed out that there were much difference in demographic characteristics, participating in activities and tourism points of view between the three type's travelers<sup>[7]</sup>. Fleischer and Pizam summarized previous studies and concluded that the most common motivation of the elderly were rest and relax, social, exercise, study, homesickness and seeking for excitement<sup>[8]</sup>. Leo Huang revealed that the elderly generally recognized increasing knowledge, relaxing, keeping fit and staying in shape, and visiting friends and relatives as their travel motivations<sup>[9]</sup>.

Jang utilized the method of questionnaire investigation to study the travel motivation of the elderly in Taiwan and obtained the most important push-pull travel motivations of the elderly and used OLS (ordinary least square) model to study the influence of age, sex, physical condition, economic condition and emotional factors on the elderly travel motivations<sup>[10]</sup>. MA Hongxia used the method of questionnaire investigation to find that the elderly travel motivations in Hebei Province were tourist motivation and visiting motivation, and factors affecting the elderly travel were the following four aspects: physical factors, leisure time, tourist psychology, and social structure factors<sup>[11]</sup>. ZHANG Yunlai used the depth interview of qualitative research method and content analysis technology to explore all possible travel motivations of the elderly and concluded that the elderly paid more attention to pursuit of beauty and difference, psychological health, affection and love, but paid less attention to patriotism, conformity motivation, rewards and remedy the regret, homesickness<sup>[12]</sup>. BAO Yafang used factor analysis method to analyze the travel motivation of the elderly in Hangzhou based on the push-pull theory and. But factor selection in the research didn't aim at the elderly. So the final conclusion is questionable<sup>[13]</sup>.

Summarizing the relevant research literatures, it can be found that although travel motivation of the elderly has carried on the empirical research, but there are many differences in social system, economic level, the cultural level and living habits between Chinese elderly and foreign elderly, so the conclusion may not be suitable for the Chinese elderly. Furthermore, domestic travel motivation researches stay in qualitative research and lacks of empirical research; Although some scholars adopted the quantitative method to study travel motivations of the elderly, but most motivation factors selections are dependent on previous research results, the conclusions can not reflect the real travel motivation of the elderly in point. Therefore, this article selects the appropriate angle and methods for empirical research based on the domestic reality.

48

and above

17.8

### **Push-pull theory summary**

Other

1

0.3

Push-pull theory is regarded as an ideal tool to study motive and widely used in tourism research. Tolman combined drive theory and expect value theory to consider a motivation which contains emotional factors (push factors) and external perception (pull factors); Dann applies Tolman's pointed to the tourism field and produces push-pull theory of travel motivation<sup>[14]</sup>. Push factor is internal and non-selective, which promotes travel desires by generating a sense of imbalance or tension, all that can ease the sense of imbalance or eliminate nervous excitement are pointed out by the body's behavior. Pull factor is the attractiveness of the travel destination, which is generated from the understanding of the targets' attributes from tourists, so pull factor correlates with destination attributes. ISO Ahola expresses the push and pull as two powers, which are pursuit and escape. He believes that the expansion ability and desire of the natural, genetic, instinctive ability are the basic power source to promote tourist behavior. Another kind of power, coming from the pressure of the outside world, attracting and calling, the existence of the external world is the power to convert into human behavior motivation<sup>[15]</sup>. Hudman asserts that push and pull factors can help to explain the world of local, national or international travel patterns in 1980<sup>[16]</sup>.

This paper is based on the push-pull theory and research methods to analyze the main push and pull motivations of the domestic elderly, and analyze the effect of demographic characteristics of the elderly on travel push-pull motivations.

### SURVEY AND ANALYSIS METHODS

First of all, this study is based on previous research to initially identify the travel push and pull motivation factors. With the experimental research and field interviews with the combination of research methods, we select out 18 push motivation factors and 12 pull motivation factors which are suitable for the elderly, and design the questionnaire accordingly.

The questionnaire is divided into three parts: the first part is the perception survey of the elderly travel motivations, score it with five point Likert scale; the second part is the elderly travel intention survey; the third part is the demographic characteristics of the elderly. Survey site are in the Beijing temple of Heaven Park and the Summer Palace Park where the elderly tourists prefer to. Survey time is on November 7 (Thursday), and May 9(Saturday), 2013. A total of 365 valid questionnaires are collected, of which 270 samples are over the age of 60, 95 tourists sample are between the ages of 50 to 60. In order to maintain the consistency with the international definition of the elderly, this paper only choose the sample over the age of 60 as the analysis basis.

Firstly, ranking the importance of push-pull motivation factors; then, an exploratory factor analysis (EFA) is performed for purpose of reducing the number of variables, using principal component analysis to extract the common motivation factor on the 18 push motivation factors and 12 pull motivation factors; Finally, T-test and one-way analysis of variance (AVOVA) are identified demographic characteristics impact on travel motivation.

| varia                 | frequ<br>ency                         | percen<br>tage | variable | frequ<br>ency               | percenta<br>ge                                |     |      |
|-----------------------|---------------------------------------|----------------|----------|-----------------------------|---|-----|------|
|                       | 60~70                                 | 202            | 74.8     | Candan                      | Male  | 140 | 51.9 |
| Λαρ                   | 71~80                                 | 59             | 21.9     | Gender                      | Female  | 130 | 48.1 |
| Age                   | over -81                              | 9              | 3.3      |                             | The Civil<br>Service                          | 41  | 15.2 |
|                       | Primary and<br>Below                  | 21             | 7.8      |                             | Professional<br>and<br>Technical<br>Personnel | 108 | 40   |
| Education Level       | Junior High<br>School                 |                | Soldier  | 3                           | 1.1   |     |      |
|                       | Senior High<br>School                 | 96             | 35.6     | engaged in occupations now) | Private<br>Individuals                        | 21  | 7.8  |
|                       | University and Above                  | 39             | 14.4     |                             | Commercial<br>Service<br>Personnel            | 36  | 13.3 |
|                       | Living Alone                          | 31             | 11.5     |                             | Other<br>Practitioners                        | 61  | 22.6 |
|                       | spouse                                | 142            | 52.6     |                             | 1000 Yuan and below                           | 13  | 4.8  |
| Living with<br>Family | Living with Children                  | 31             | 11.5     |                             | 1000~2000                                     | 55  | 20.4 |
|                       | Living with<br>Spouse and<br>Children | 65             | 24.1     | Monthly Income              | 2000~3000                                     | 154 | 57   |
|                       | Other                                 | 1              | 0.3      |                             | 4,000 Yuan                                    | 18  | 17.8 |

TABLE 1: Demographic characteristics of the survey

### STATISTICAL ANALYSES OF SURVEY RESULTS

### Analysis of demographic characteristics

Demographic characteristics of sample results are shown in TABLE 1. The results reveal that the samples between the ages of 60 to 70 are the most part, accounting for 74.8%, indicating that with the growth of the age, the tendency to travel of elderly would be reduced. Males account for 51.9% and females account for 48.1%, the gender ratio difference is not significant. In some aspect, it illustrates that the sample selection is reasonable and effective. Travelers with secondary and higher education account for 92.2%; Most of the elderly are living with a spouse, accounting for 52.6%. It clearly shows out the most families living pattern in today's society, that the elderly and children separate more and more, and the tourism has become the main way to eliminate loneliness for the elderly. Prior to retirement or engage in occupations now is mostly professional and technical personnel, accounting for 40%. Travelers with monthly income of 2,000 yuan or more account for 74.8%, which to some extent indicates the basic economy conditions for the elderly to travel.

### Analysis of the importance of tourism push-pull motivation factors

The ranking results about the importance of motivational factors are shown in TABLE 2.

TABLE 2: The importance ranking of push-pull motive factors

| Push Motivation Factors                             | Mean | Pull Motivation Factors                                | Mean |
|---|------|--|------|
| Enjoy the beautiful natural scenery                 | 4.55 | Beautiful scenery, sunshine and kind weather           | 4.61 |
| Relax   | 4.40 | Destination's security situation                       | 4.47 |
| Enjoy life when one can                             | 4.32 | Convenient transportation                              | 4.37 |
| Physical fitness                                    | 4.02 | Historical and cultural attractions                    | 4.23 |
| To see more place                                   | 4.01 | Quality of service                                     | 4.17 |
| Enjoy the time with family and friends              | 3.93 | High quality accommodation                             | 4.02 |
| Learn about native history and culture              | 3.91 | Low ticket price of destination                        | 3.94 |
| See the mountains, see the sea                      | 3.90 | The number of people in scenic spots                   | 3.87 |
| Learn more things about the world                   | 3.72 | Facilities for rest and sport, information integrality | 3.46 |
| Red tourism, visited the Revolutionary Martyrs      | 3.69 | The unique life custom                                 | 3.40 |
| Enjoy regional snacks                               | 3.61 | Attitude of local residents                            | 3.33 |
| Share travel experiences after the trip             | 3.52 | Familiar environment                                   | 3.24 |
| Remedy the old dream                                | 3.47 |  |      |
| Experience the different life characteristics       | 3.38 |  |      |
| Meet the desire of the children's love and devotion | 3.32 |  |      |
| Meet new friends, avoid loneliness                  | 3.31 |  |      |
| Visit friends and relatives                         | 3.02 |  |      |
| Take children out to see the world                  | 2.79 |  |      |

The highest ranking push factor of travel motivation is "Enjoy the beautiful natural scenery" (4.55), followed by "Relax" (4.40), and " To see more place "(4.32); it shows that the main purpose of the elderly travel is to get rid of the troubles of life and enjoy life through integrating into the beautiful natural surroundings; the most rearward push factor of travel motivation is "Take children out to see the world" (2.79), followed by " Visit friends and relatives" (3.02) and "Meet new friends, avoid loneliness" (3.31). This is different from previous studies, which deduces that the main travel motivation of the elderly is to visit friends and relatives, and social.

The highest ranking pull factor of travel motivation is" Beautiful scenery, sunshine, and kind weather", (4.61), followed by "Destination's security situation" (4.47), and "Convenient transportation" (4.37). It indicates that the elderly look forward to feel out the beautiful scenery and weather, and at the same time, as the poor physical condition, the elderly are worried about their own safety. If the traffic condition and the public security of the destination are frustrating, the elderly will reconsider the travel plans seriously. The most rearward pull factor of travel motivation is "Familiar environment" (3.24), followed by "Attitude of the local residents" (3.33) and the "The unique life custom "(3.40). It shows that the elderly is looking forward to visit a place where they never been, so familiar environment is not important for them. At the same

time, most of the elderly choose to travel together or with the group, little contact with the local residents, so local residents' attitude is not important for them.

### Factor analysis of the push-pull travel motivation

The push motivation factor of the elderly can be obtained by factor analysis as shown in TABLE 3.

TABLE 3: Travel push motivation factor analysis of the elderly

| Push factors   | Factor<br>loading | Common<br>factor<br>variance | Eigen-<br>values | Contribution rate | Reliability<br>Coefficient |  |
|--|-------------------|------------------------------|------------------|-------------------|----------------------------|--|
| Common factor1: Remedy the regret                            |                   |                              | 2.665            | 16.658            | 0.781                      |  |
| See the mountains, see the sea                               | 0.687             | 0.507                        |                  |                   |                            |  |
| Remedy the old dream   | 0.682             | 0.566                        |                  |                   |                            |  |
| Red tourism, visited the Revolutionary Martyrs               | 0.639             | 0.472                        |                  |                   |                            |  |
| Learn about native history and culture                       | 0.621             | 0.550                        |                  |                   |                            |  |
| Common factor 2: the motivation of love                      |                   |                              | 2.079            | 14.995            | 0.729                      |  |
| Take children out to see the world                           | 0.788             | 0.685                        |                  |                   |                            |  |
| Meet the desire of the children's love and devotion          | 0.768             | 0.678                        |                  |                   |                            |  |
| Meet new friends, avoid loneliness                           | 0.583             | 0.551                        |                  |                   |                            |  |
| Enjoy the time with family and friends                       | 0.525             | 0.500                        |                  |                   |                            |  |
| Common factor 3: Self-improvement                            |                   |                              | 1.789            | 12.184            | 0.727                      |  |
| Share travel experiences after the trip                      | 0.652             | 0.603                        |                  |                   |                            |  |
| Take it as a trial   | 0.622             | 0.619                        |                  |                   |                            |  |
| Learn more things about the world                            | 0.607             | 0.548                        |                  |                   |                            |  |
| Experience the different life characteristics                | 0.595             | 0.526                        |                  |                   |                            |  |
| Common factor 4: The pursuit of beauty vary and perfect life |                   |                              | 1.718            | 11.739            | 0.701                      |  |
| Enjoy the beautiful natural scenery                          | 0.720             | 0.588                        |                  |                   |                            |  |
| To see more place  | 0.701             | 0.600                        |                  |                   |                            |  |
| Relax  | 0.630             | 0.598                        |                  |                   |                            |  |
| Enjoy life when one can                                      | 0.881             | 0.846                        |                  |                   |                            |  |

Cumulative variance contribution rate %=55.576; KMO value =0.770; Bartlett ball test, approximate  $X^2=1110.639$ ; Degrees of freedom =153; sig.=0.000; Cronbach coefficient (Cronbachps Alpha)=0.893

There are 18 push motivation factors, excluding the factor "Visiting friends and relatives" (0.390), and "Enjoy specialties" (0.369) which factor loading is less than 0.4, the rest 16 factors involves in factor analysis, the results shows that KMO value of 0.770, more than the recommended value of 0.7<sup>[20]</sup>. And the Bartlett ball test value is 1110.639, achieves a significant under the condition of degrees of freedom for 153 and the significance level of 0.05. This indicates there is a common factor exists in the rest of the push motivation factors and the push motivation factors are suitable for factor analysis.

Using principal component analysis to extract the common factor from the 16 push motivation factors, we extract 4 common factors with eigenvalues greater than 1: "Remedy the regret ","The motivation of love", "Self-improvement" and "The pursuit of beauty vary and perfect life ". The cumulative variance contribution rate of the 4 common factors is 55.576%, indicating that the four common factors have 55.576% interpretation capability on the original 16 factors. The factor loadings and common factor variance of the 16 factors are greater than 0.4, the credibility of each common factor is greater than 0.7, the overall reliability Cronbach coefficient (Cronbachps Alpha) is 0.893, which indicates that all the variables of each factor have a good internal consistency and high reliability (see TABLE 3).

The elderly pull motivation factor analysis results can be concluded by the same method, as shown in TABLE 4.

TABLE 4: Travel pull motivation factor analysis of the elderly

| Pull factors   | Factor<br>Loading | Common Factor<br>Variance | Eigen<br>-<br>values | Contributio<br>n Rate<br>% | Reliability<br>Coefficient |
|--|-------------------|---------------------------|----------------------|----------------------------|----------------------------|
| Common factor 1: Destination image                     |                   |                           | 2.097                | 16.637                     | 0.789                      |
| Attitude of local residents                            | 0.773             | 0.647                     |                      |                            |                            |
| Familiar environment                                   | 0.755             | 0.689                     |                      |                            |                            |
| Facilities for rest and sport, information integrality | 0.656             | 0.699                     |                      |                            |                            |
| Common factor 2: Live-line policing services           |                   |                           | 1.956                | 15.098                     | 0.734                      |
| Quality of service                                     | 0.754             | 0.655                     |                      |                            |                            |
| Destinations' security situation                       | 0.671             | 0.507                     |                      |                            |                            |
| High quality accommodation                             | 0.561             | 0.528                     |                      |                            |                            |
| Convenient transportation                              | 0.521             | 0.507                     |                      |                            |                            |
| Common factor 3: Natural and cultural resources        |                   |                           | 1.898                | 14.641                     | 0.795                      |
| The unique life custom                                 | 0.745             | 0.628                     |                      |                            |                            |
| Beautiful scenery, sunshine, and kind weather          | 0.719             | 0.564                     |                      |                            |                            |
| Historical and cultural attractions                    | 0.611             | 0.54                      |                      |                            |                            |
| Common factor 4: The cost and crowding degree          |                   |                           | 1.179                | 11.819                     | 0.705                      |
| Low ticket price of destination                        | 0.743             | 0.492                     |                      |                            |                            |
| The number of people in scenic spots                   | 0.656             | 0.571                     |                      |                            |                            |

Cumulative variance contribution rate %=58.195; KMO value =0.728; Bartlett ball test; approximate  $X^2$ =603.707; Degrees of freedom =66; sig.=0.000; Cronbach coefficient (Cronbachps Alpha)=0.830

There are 12 pull motivation factors, the factor loadings are greater than 0.4, KMO value is 0.728, and the Bartlett ball test value is 603.707. This achieves a significant under the condition of degrees of freedom for 66 and the significance level of 0.05, which indicates that there exists common factor in the pull motivation factors and the common factor is suitable for factor analysis.

Using principal component analysis to extract the 4 common factor whose Eigenvalues greater than 1 from the 12 pull motivation factors: "Destination image", "Live-line policing services ", "Natural and cultural resources" and "The cost and crowding degree", The cumulative variance contribution rate of the 4 common factors is 58.195%, indicating that the 4 common factors have 58.195% interpretation capability of the original 12 factors. The factor loadings and common factor variance of the 12 factors are greater than 0.4. The credibility of each common factor is greater than 0.7. The overall reliability Cronbach coefficient (Cronbachps Alpha) is 0.830. All the above informations indicate that all the variables of each factor have a good internal consistency and high reliability (see TABLE 4).

### Correlation Analysis of demographic characteristics and the elderly motivations of travel

An independent sample T test of gender analysis, other demographic characteristics of ANOVA are shown in TABLE 5.

We can see from the table that age, educational level, living with family, occupation and income levels significantly affect travel motivation of the elderly, but gender has no significant effect on the elderly travel push-pull motivation.

The elderly with different ages reach significant level on the push motivation "Remedy the regret" (sig.= 0.035), by comparing the average value of different age groups in various motives, it can be concluded that the elderly with the age of 60-70 years pay more attention to "Remedy the regret" motivation than the age of 70 or older, indicating that after retirement with more consumption time the elderly with the age of 60-70 years pay more attention to fulfill the desire of travelling which did not be satisfied during the period of work.

The elderly with different education level reach significant level on the push motivation "Remedy the regret" (sig. = 0.016), "Self-improvement" (sig. = 0.025) and the pull motivation" Natural and cultural resources"(sig. =0.022). Through further analysis, it can be found that the elderly with higher education pay more attention to "Remedy the regret" motivation and "Self-improvement" motivation than the elderly with high and junior high school education. But in the "Remedy the regret" aspect is just the opposite, indicating that the elderly with higher education have a higher degree of meet their travel

wishes in daily life, and there is not much regret to make up. The only hope of them is to experience the different natural and cultural resources, to improve individual's cultural enrichment.

|                    |                                    | push motiva                         | tions common fac            | ctor  | pull motivations common factor |  |  |  |  |
|--------------------|------------------------------------|-------------------------------------|-----------------------------|---|--------------------------------|--|--|--|--|
|                    | F1:<br>Remedy<br>for the<br>Regret | F2:<br>The<br>Motivation<br>of Love | F3:<br>Self-<br>Improvement | F4:<br>The Pursuit<br>of Beauty<br>Vary and<br>Perfect Life | F1:<br>Destinations'<br>Image  | F2:<br>Live-line<br>Policing<br>Services | F3:<br>Natural<br>and<br>Cultural<br>Resources | F4:<br>The Cost<br>and<br>Crowding<br>Degree |  |
| Age                | 0.035                              | 0.113                               | 0.657                       | 0.422   | 0.256                          | 0.104                                    | 0.217  | 0.231  |  |
| Gender             | 0.920                              | 0.164                               | 0.957                       | 0.122   | 0.275                          | 0.657                                    | 0.844  | 0.252  |  |
| Education Level    | 0.016                              | 0.075                               | 0.025                       | 0.398   | 0.323                          | 0.502                                    | 0.022  | 0.108  |  |
| Living with Family | 0.212                              | 0.021                               | 0.219                       | 0.001   | 0.430                          | 0.036                                    | 0.051  | 0.006  |  |
| Occupation         | 0.407                              | 0.211                               | 0.282                       | 0.708   | 0.468                          | 0.049                                    | 0.781  | 0.658  |  |
| Monthly Income     | 0.326                              | 0.197                               | 0.429                       | 0.375   | 0.936                          | 0.825                                    | 0.171  | 0.012  |  |

TABLE 5: Push and pull motivations common factor analysis of variance table

Living with family condition have a significant impact on the push motivation "The motivation of love" (sig. = 0.021), "The pursuit of beauty vary and perfect life" (sig. = 0.001) and the pull motivation" Live-line policing services" (sig. = 0.036), "The cost and crowding degree "(sig. = 0.006), further analysis reveals that the elderly living alone pay more attention to get the motivation and like to travel with friends and family than other groups. At the same time, the elderly living alone are more concerned about the live-line policing services, indicating that the elderly living alone for a long time pay more attention to the safety problems in the process of travel. If there is any safety problem, no one will take care of them. The elderly living with children pay less attention to the cost and crowding degree than other groups.

The elderly with different occupations have a big difference in "Live-line policing services" (sig. = 0.049). Further analysis reveals that the elderly whose occupation once as "military" pay less attention to live-line policing services than other elderly, indicating that the former military experience has made the elderly be able to adapt to all kinds of difficulties and hardships.

Different income levels have a significant impact on "The cost and crowding degree" (sig. = 0.012). Further analysis reveals that the elderly with the level of income below 1,000 Yuan pay more attention to the cost and crowding degree than the level of income more than 2,000 Yuan.

### **CONCLUSIONS**

This study reveals that the travel motivation of the elderly have four main push common factors: "Remedy the regret ","The motivation of love", "Self-improvement "and" The pursuit of beauty vary and perfect life ". At the same time, there are also four pull common factors: "Destination image", "Live-line policing services", "Natural and cultural resources" and "The cost and crowding degree ". Moreover, "Remedy the regret" and "Destination image" are the main motivation for pushpull factors respectively.

In addition, the results got by T test and ANOVA show that ages, educational levels, living with family or not, occupations, income levels all have a significant influence on the elderly travel motivation, but gender has no significant influence on the travel motivation of the elderly. The elderly aged 60-70 years old pay more attention to "Remedy the regret" motivation. The elderly with higher education pay more attention to "Self-improvement" motivation and "Natural and cultural resources", but pay less attention to "Remedy the regret "motivation. The elderly who have military experience pay less attention to "Live-line policing services" motivation than other elderly. The elderly with higher income pay less attention to "The cost and crowding degree "than the elderly with lower income. The elderly living alone pay more attention to "The motivation of love" and" Live-line policing services" than the elderly living with other.

Finally, there are still some limitations on the sample size and the diversity of survey sites, future research will investigate more widely in the sample to deepen the results of this study. Conducting research with the perspective of psychology to explore the elderly travel will be a new research perspective.

### **ACKNOWLEDGEMENTS**

This research was supported by National Natural Science Foundation of China (Grant no.51308016 and Grant no. 51308015) and National Basic Research Program of China (No. 2012CB725403). We are very grateful for the comments from the anonymous reviewers.

### **CONFLICT OF INTERESTS**

The authors declare that there is no conflict of interests regarding the publication of this paper.

### REFERENCES

- [1] National Bureau of Statistics of the People's Republic of China, Sixth national census data bulletin (No.1) [EB/OL].[2011-4-28], http://www.stats.gov.cn/tjsj/zxfb/201104/t20110428\_12705.html, (2010)
- [2] P.L.Pearce, M.L.Caltabiano; Inferring travel motivation from travelers' experiences[J], Journal of Travel Research, 40(1), 49-56 (1983).
- [3] R.Guinn; Elderly recreational vehicle tourists: Motivations for leisure[J], Journal of Travel Research, 19 (1980).
- [4] B.Anderson, L.Langmeyer; The under-50 and over-50 traveler: a profile of similarities and difference[J], Journal of Travel Research, 20(4), (1982).
- [5] Gerald Romsa, Morris Blenman; Vacation patterns of the elderly German[J], Annals of Tourism Research, 16(2), 178-188 (1989).
- [6] D.W.Thomas, F.B.Butts; Assessing leisure motivators and satisfaction of international elder hostel participants[J], Journal of Travel & Tourism Marketing, 7(1), (1998).
- [7] X.You, J.T.O'Leary; Destination behavior of older UK travelers[J], Tourism Recreation Research, 24(1), 23-34 (1999).
- [8] A.Fleischer, A.Pizam; Tourism constraints among Israeli seniors[J], Annals of Tourism Research, 29(1), 106-123 (2002).
- [9] Leo Huang, Hsien-Tang Tsaib; The study of senior traveler behavior In Taiwan[J], Tourism Management, 24(3), 561-574 (2003).
- [10] S.C.Jang, C.M.Wu; Seniors' travel motivation and the influential factors: An examination of Taiwanese seniors [J], Tourism Management, 27(2), 306-316 (2006).
- [11] H.X.Ma; Present situation of the Elder-citizen travel in Hebei and its development strategies [D], QIN Huangdao: Master's Degree thesis of Hebei Normal University, (2008).
- [12] Y.L.Zhang, Y.D.Li; Research on travel motivations of elderly people based on content analysis method[J], Journal of Beijing Technology and Business University(Social Science), 5(24), 101-106 (2009).
- [13] Y.F.Bao; A Study on Seniorsp Travel Motivation in Hangzhou Based on "Push-Pull" Theory[J], Tourism Tribune, (24), 47-52 (2009).
- [14] Dann G.Anomie; Ego-enhancement and tourism[J], Annals of Tourism Research, 4(4), 184-194 (1977).
- [15] S.E.Iso-Ahola; Toward A social psychological theory of tourism motivation: A rejoinder[J], Annals of Tourism Research, 9(2), 256-262 (1982).
- [16] Hudman, E.Lloyd; Tourim: A shrinking world[M], Columbus, Ohio:Grid Inc, (1980).