

# Chapter 15

## Research on Constraint Factors of Group Purchasing Tourism Products Online

Huijun Peng

**Abstract** The purpose of the paper is to research the constraint factors of group purchasing tourism products online in the new electronic marketing channel. The scale of constraint factors of group purchasing online was developed, and the questionnaire method was used in the study. The result shows that the constraint factors of group purchasing tourism products online include four dimensions, and the website information and perceived risk are the main obstacle factors for the tourism product's group purchasing online. There are different impacts on the constraint factors for the partial demographic and group purchasing habit factors. The website of group purchasing tourism products should take the corresponding measures according to the constraint factors to improve the consumers' intention of tourism product group purchasing online.

**Keywords** Group purchasing online • Tourism products • Constraint factors

### 15.1 Introduction

According to the data of CNNIC, the number of netizen amounts to 513 million and the internet penetration climbs to 38.3 % by the end of the 2011 in China. One of the main reasons of rapid growth of shopping online is the development of group purchasing. The number of group purchasing consumer online achieved 64.65 million by the end of 2011 in China [1]. With the vigorous development of tourism industry and the increment of people's tourism demand, group purchasing online has been an important marketing channel for the tourism enterprises. The tourists can purchase the products and services directly to the tourism enterprises through the group

---

H. Peng (✉)  
Management School of Jinan University,  
Guangzhou 510632, China  
e-mail: bogasjun@163.com

purchasing online. In this way, the costs of acquiring products have been reduced, and the common interests of both sides of supply and demand have been maximized [2].

The key of making better of group purchasing website and attracting the consumers to group purchase the products online for the tourism enterprises is to understand the consumers' behavior of group purchasing online. Most of the existing literatures about consumer buying behavior researched on the realistic consumers and ignored the non-consumers. The paper is to research on the constraint factors of group-buying online from the perspective of non-consumer, and it is a new research perspective of tourism marketing channel. The results can be a very important reference for management of websites of group-buying online.

## **15.2 Research Design**

### ***15.2.1 Methodology***

The questionnaire method was used in the research. The questionnaire consists of three parts: sample's demographic information, sample's basic information of purchasing online and constraint factors of group purchasing tourism products online. Based on the leisure theory, perceived risk theory and technology acceptance model, the scale of constraint factors of group purchasing online was developed according to the characteristics of tourism products sold by group purchasing online. The scale included 16 items, and the 5 points of Likert scale was taken in the scale.

### ***15.2.2 Sample Selection and Survey***

The study selected the university students in the campus as the survey sample. The age of online-purchasing consumers mainly range from 18 to 40 years old, in which the consumers with university education have become the most active group [3]. On the other hand, the foreign survey indicates that the young tourists are the main part of tourists who are largely made up of university students accounted for the whole tourists in a ration of 38.7 % in Asia [4]. So the university students are an important segment in the group purchasing online market and an essential potential consumer for tourism products. The investigation was conducted from April to June in 2012. The respondents were screened by the questions of "Do you have the tourism motivation?" and "Have you purchased products by group purchasing online?" Only when the respondent answered "yes" for the toe questions, he was permitted to finish the questionnaire. The questionnaires were distributed to 361 students of 7 universities in China and 352 questionnaires were recalled in which 319 were valid, and the efficiency ratio is 90.63 %.

**Table 15.1** Samples' demographic characters

Item	Classification	Ration (%)	Item	Classification	Ration (%)
Gender	Male	38.63	Grade	Freshman	21.60
	Female	61.37		Sophomore	24.16
Age	Under 18	5.22		Junior	28.43
	18–22	68.75		Senior	25.81
	Above 22	26.03		Monthly living expenses	Under 600
Major	Liberal arts	58.61			601–800
	Science	41.39	801–1,000		41.28
			Above 1,001		25.59

### 15.2.3 Samples' Demographic Characters

The Table 15.1 shows the samples' demographic characters in gender, age, major, grade and monthly living expenses. From the table, we concluded that the female students are more than male ones, the main age group is 18–22 years, the liberal arts major students outnumber science major ones, the number of students in every grade nearly balances, and the students' monthly living expenses are from 801 to 1,000 with the largest group in the respondents.

### 15.2.4 Reliability and Validity Analysis of the Questionnaire

The Cronbach  $\alpha$  coefficient of the scale of constraint factors of group purchasing tourism products online is 0.833, and Cronbach  $\alpha$  coefficients of the 4 component scales lie between 0.752 and 0.826 which are higher than the critical value of 0.7. It indicates that the scale has a good internal reliability. The correlation coefficient of each item of the scale of constraint factors of group purchasing online and total scorers of the scale was significantly related at the 0.05 significance level which suggests that the scale has a good content reliability. The construction validity of the scale can be tested by the exploratory factor analysis in the next chapter.

## 15.3 Result

### 15.3.1 Respondents' Basic Information of Group Purchasing Online

The respondents who have been the netizen for more than 4 years account for 62.71 %. 68.28 % of the samples would browse webpage of group purchasing only when they need buy something. Most of the frequencies of group purchasing

online are “two or three times per month” (accounting for 46.5 %). Top three goods of the group-purchased online are articles for daily use (accounting for 54.49 %), food (accounting for 46.31 %) and entertainment and leisure (accounting for 36.29 %). 46.28 % of the samples spend 50–100 RMB in group purchasing online every time. 8 respondents have bought tourism products by group purchasing online which only account for 2.5 % of the samples. It indicates that the majority of the samples have not purchased the tourism products by group purchasing online. 87.7 % of the samples states that they do not want buy the tourism products by group purchasing online, but 46.18 % of the samples would browse webpage about group purchasing tourism products online.

### 15.3.2 Dimensions of the Constraints Factors of Group Purchasing Tourism Products' Online

The exploratory factor analysis on the scale of constraint factors of group purchasing tourism products online is conducted by SPSS17.0. KMO measurement coefficient is 0.803, and Bartlett test Chi-square value is 547.17 ( $P = 0.000$ ) which shows that the data of the sample were suitable for factor analysis. Two items are deleted because of lower factor load and higher factor in two common factors after varimax orthogonal rotation for 2 times. Fourteen items are retained, and 4 common factors are extracted by using the principal component method (Table 15.2).

- (1) The first factor is named “product features” because it includes 4 items such as “The tourism products in the group purchasing website has no visibility,”

**Table 15.2** Factor load of the items

	1. Product features	2. Technology acceptance	3. Website information	4. Perceived risk
Item 1	0.646			
Item 2	0.727			
Item 8	0.572			
Item 11	0.669			
Item 9		0.684		
Item 3		0.573		
Item 5		0.675		
Item 6		0.748		
Item 6			0.787	
Item 10			0.594	
Item 14			0.631	
Item 4				0.631
Item 5				0.825
Item 12				0.588

*Note* The factor loads which are lower 0.4 are not displayed

- “I have less knowledge about travel agency in other cities,” “The consumption of group purchasing tourism products online are restricted to the valid period of group-purchasing coupons” and “People around me are rarely buy tourism products by group purchasing online.”
- (2) The second factor is named “technology acceptance” because it includes 4 items such as “There are too many steps from group purchasing online to realistic travel,” “Most of the tourism products in group purchasing website are remote travel which will cost me too much time for it,” “I’m not accustomed to getting information from group purchasing website before traveling” and “I don’t like the form of package price for the tourism products by group purchasing online.”
  - (3) The third factor is named “website information” because it includes 3 items such as “The tourism products’ information in group-purchasing website is not complete,” “There are no other tourists’ consumption evaluation” and “The people who buy tourism products by group purchasing online is less and the speed of becoming a group is slow.”
  - (4) The fourth factor is named “perceived risk” because it includes 3 items such as “I have no sense of security because the group purchasing online and tourism are unpredictable,” “The price of tourism products by group purchasing online is higher and it isn’t safe by electronic payment” and “Traveling by group-purchasing tourism products online is a novelty and is much riskier.”

### 15.3.3 Characters of Constraint Factors of Group Purchasing Tourism Products Online

In general, 1–2.4 means opposition, 2.5–3.4 means neutrality and 3.5–5 acceptance in 5 points of Likert scale [5]. The Table 15.3 shows the means of total scale and 4 component scales of tourism products by group purchasing online. The total means of the scale is 3.6980, and it suggests that the factors have the larger constraint on the group purchasing tourism products online. In particular, the means of perceived risk and website information are 4.2082 and 4.0339 which are higher than the ones of total scale. The means of technology acceptance and product features are lower than the ones of total scale, but the mean of technology acceptance exceeds the critical value of 3.5. The above analysis illustrates that perceived risk

**Table 15.3** Means of total scale and component scales

	Minimum	Maximum	Mean	Standard deviations
Total scale of constraint factors	16.00	62.00	3.7834	0.6267
Perceived risk	3.00	13.00	4.2082	0.6266
Website information	3.00	14.00	4.0339	0.6723
Product features	4.00	19.00	3.5227	0.6281
Technology acceptance	4.00	20.00	2.7206	0.6527

and website information are the major constraint factors of group purchasing tourism products online, and the technology acceptance has less constrain on group purchasing tourism products online.

The above characters of constraint factors are related to the following reasons. At first, studies show that the travel expenses are the primary factor which influences the university students' tourism destination choice [6]. In present, there are payment risks for group purchasing tourism products online, so perceived risks become the chief factor for the university students who have no or little income. Then, the present websites of group purchasing tourism products have not provided enough information to the tourists, especially lacking the past consumers' evaluation of the products. On the other hand, the tourism products bought by group purchasing online cannot be consumed in weekends or holidays in general which constrains the tourists to group purchase tourism products online. Lastly, the e-consumers take the number of people in a group as the important reference to purchase [7]. But the speed of becoming a group is slow for most group purchasing tourism products online, and it becomes an important factor constraining the consumers' group purchasing tourism products online.

#### ***15.3.4 Different Characteristics of Constraint Factors of Group Purchasing Tourism Products Online***

The demographic and group purchasing habit factors' influence on constraint factors was researched by analysis of variance. The results indicate that there are differences in partial demographic and group purchasing habit factors for the constraint factors.

The factor of product features differs in the grades, monthly living expenses, years of becoming a netizen and frequencies of group purchasing online. Sophomores are most sensitive to the factor of product features because they have more leisure time, increased tourism demand and high expectation for tourism products. The factor of technology acceptance has the significant difference in monthly living expenses, years of becoming a netizen and frequencies of group purchasing and intention of browsing webpage of tourism products. University students who have less monthly living expenses, years of becoming a netizen and frequencies of group purchasing will perceive much stronger constraint of the factor of technology acceptance. The factor of website information differs in "intention of browsing webpage of tourism products." It means the students who have no intention of browsing webpage of group purchasing tourism products online think the hindrance effect of the website information is stronger. The factor of perceived risk has the significant difference in years of becoming a netizen, frequencies of group purchasing and price of purchased products every time. It implies that the students who have less years of becoming a netizen, frequencies of group purchasing and lower price of purchased products every time will perceive much stronger constraint of the factor of perceived risk.

## 15.4 Conclusions and Suggestions

The paper researched on the constraint factors of tourism products by group purchasing online and drew on the following conclusions: (1) the constraint factors of tourism product's group purchasing online include four dimensions: product features, technology acceptance, website information and perceived risk; (2) the website information and perceived risk are the main obstacle factors for the group purchasing tourism product online, and the factor of technology acceptance has little constraint effect on the group purchasing tourism products online; (3) there are differences in partial demographic and group purchasing habit factors for the constraint factors.

Based on the conclusions, the group purchasing website and tourism enterprises should take the corresponding measures according to the constraint factors to improve the consumers' intention of tourism product group purchasing online. Firstly, the group purchasing website should sell more well-known scenic spots to eliminate the consumer's anxiety about unknown scenic spots and travel agency in different place. Secondly, the website must provide more information to the group purchaser online in order that the purchasers can understand the tourism product in details. Thirdly, the tourism enterprises should design characteristic products for the group purchasing online to satisfy the demands of group purchaser online.

## References

1. CNNIC (2012) The twenty-ninth statistical report of china internet development, vol 2. pp 11–15
2. Wang YP, Yao MG (2011) Study on website selection in resort product group-buying marketing science. *Mosaic* 2:63–65
3. Zhou G, Liu SN (2011) Study on network shopping condition of undergraduates and its gender differences. *J Univ Sci Technol Liaoning* 34(3):333–336
4. Li LM, Bao JG (2000) A study of undergraduates' touristic behaviors. *J Guilin Inst Tourism* 11(4):47–49
5. Tang WY (2011) The characteristics of urban residents' place attachment to recreational block: a case study of Nanjing Confucius temple block. *Sci Geogr Sinica* 31(10):1023–1027
6. Ren ML (2008) The analysis on current situation and developing strategy of tourism consumption market of contemporary college students. *J Anyang Inst Technol* 3:57–59
7. Ning LJ, Zhang XX (2011) Empirical analysis on the influencing factors of impulse purchase intention in online group-buying. *J Fujian Norm Univ Philos Soc Sci Ed* 6:13–17