

# Research on the Behavior of College Students' Online Tourism Booking Based on TAM

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**How to cite this paper:** Chen, X.R. and Li, Z. (2020) Research on the Behavior of College Students' Online Tourism Booking Based on TAM. *Journal of Service Science and Management*, 13, 28-44.  
<https://doi.org/10.4236/jssm.2020.131003>

**Received:** December 15, 2019

**Accepted:** January 18, 2020

**Published:** January 21, 2020

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## Abstract

With the rapid progress of social economy, online tourism booking has newly become a highlight for China's tourism trade and its development. College students, who have abundant disposable time, gradually build up as great tourist forces adept at using network resources. By both literature research and empirical research, this paper explores the factors affecting college students' online tourism decision-making. By establishing college students' online tourism booking behavior model based on TAM, and empirically analyzing 161 pieces of data based on SPSS22.0 and PROCESS macro plug-in, the hypotheses and modified model are verified. According to the results, perceived usefulness is still the most important factor in the college students' online tourism booking behavior model, while perceived ease of use is another essential one. Usage attitude and usage intention are combined into a common factor—"usage attitude and intention" affecting the model; Negative Internet word-of-mouth plays a moderating role in the relationship between perceived usefulness and usage attitude and intention, and perceived usefulness and perceived ease of use together act as an intermediary in the model.

## Keywords

College Students, Online Tourism Booking, Technology Acceptance Model, Internet Word-of-Mouth

## 1. Introduction

As the era witnesses rapid development of tourism and Internet information technology, the Internet has imperceptibly changed the modern lifestyle and state. According to the 44th *Statistical Report on the Development of Internet in China*, published by China Internet Network Information Center (CNNIC), August 2019 [1], by June 2019, the number of Internet users in China had

reached up to 854 million with the Internet penetration rate of 61.2%, an increase of 1.6% compared with the end of 2018. In the past decade, the Internet penetration rate was increasing gradually and steadily. As the 2018 statistical bulletin of culture and tourism issued by the Ministry of Culture and Tourism, the number of Chinese domestic tourists, outbound tourists, domestic tourism consumption and overseas tourism consumption all ranked the top in the world in 2018 and has been in constant grow, indicating the increasing tourism demand of Chinese residents [2]. Driven by the rapid growth of tourism consumption, online tourism booking has developed rapidly. Among the Internet applications in business transactions, online tourism booking has ranked the third on usage rate, just behind online shopping and take-out, with 418 million Internet users, accounting for 48.9% of the total. In that case, more and more enterprises and users have accepted online tourism booking. Among the netizens, students account for the highest proportion, up to 26% [1].

At present, the competition among the online tourism booking platforms is becoming increasingly fierce, making how to attract potential consumers to book and consume an important topic for the tourism E-commerce platforms. Online booking is also the extension and embodiment of information technology in tourists' consumption behavior [3]. Meanwhile, with the rapid development of social economy and the improvement of people's living standards, college students, as a group with more disposal free time, have taken tourism as an important way of leisure and entertainment, while as powerful targeted users who are good at using network resources, their laws and directions when using online tourism booking are worthy of further exploration.

As such, the purpose of the current work has two aspects. Based on the Technology Acceptance Model, according to the current situation of college students in Internet use and related features of tourism products, a college students' online tourism booking behavior model is constructed to explore the influence of perceived usefulness and perceived ease of use on online travel booking behavior. Discusses the power of negative Internet word-of-mouth to introduce the public word of mouth of trustworthy objects, namely, the Internet word-of-mouth model, into the online travel booking behavior model of college students, discusses the moderating effect of Internet word-of-mouth on the online travel booking behavior model of college students, and enhances the explanatory power of the model. In general, the main focus of this paper is to study the key factors and influencing mechanisms that influence the booking behavior of college students.

## 2. Literature Review

### 2.1. Online Tourism Booking Behavior

Online tourism booking refers to that tourists, through Internet or telephone, book tourism products or services like flight tickets, hotels, holiday products, etc. from tourism service providers and pay online or offline. According to the

current situation of online tourism trade in China, a successful transaction made by information check on the tourism service website and booked through Call Center is also regarded as an online tourism transaction. With the continuous development of web2.0, more and more consumers choose online tourism booking.

With the increasing scale of Internet users and the diversification of online tourism service business mode, the researches on online tourism booking behavior at home and abroad are also gradually emerging. Foreign scholars have a relatively early understanding of it, realizing the change of tourists' consumption behavior in the Internet age. Buhalis and Licata (2002) showed in their study on Taiwan that the online tourism transaction volume dominates the B2C tourism e-commerce, making customers be accustomed to conducting independent tourism information search and self-booking of tourism products through the network [4]. Matzler *et al.* (2006) took online train tickets booking as an example, believing that website availability had a great impact on the booking motivation and satisfaction [5].

Among the research on online tourism booking behavior in China, Chen Haipeng *et al.* (2007) discussed the main reasons why consumers choose online tourism booking: time saving, comprehensive information and low price [6]. Based on consumers' features, Bao Fuyuan (2010) conducted in-depth study on the reasons and related factors contributing to the online booking, among which time saving, available information comparison and cheap price, etc. Product information, timely and effective communication with customers, and transparent tourism product cost performance are the primary factors [7]. Li *et al.* (2005) identified and measured the determinants of Chinese e-commerce consumers' online purchase of tourism products from seven independent sets of variables affecting Internet consumer behavior, and explored the process of online tourism consumers' transformation, from a "watcher" to a "consumer" [8]. Zhu Jingyan (2014) showed in her research on the online booking behavior of tourism website users that the implementation of the booking behavior signaling the tourism website users' transformation process from browsing to purchasing. According to the differences in online booking behavior, users are divided into four categories, and the online booking behavior characteristics of different types of tourism website users are described respectively [9].

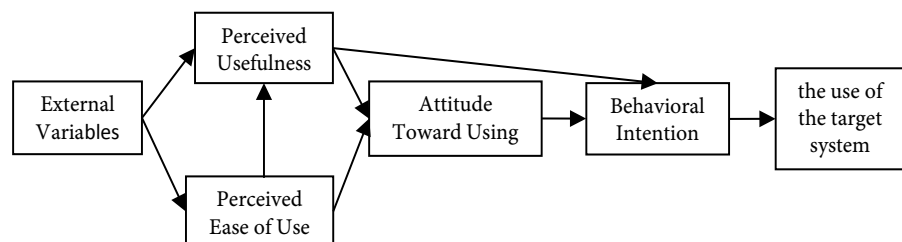
## 2.2. Technology Acceptance Model

Technology Acceptance Model (TAM) was proposed by Davis (1989) when he used the theory of rational behavior to study users' acceptance of information system, aiming to explain and predict users' status of information system acceptance after interaction with the system over a period of time [10]. The model presents two main determinants: perceived usefulness, as "the degree to which a person believes that using a particular system would enhance his or her job performance". In contrast, perceived ease of use refers to "the degree to which a person believes that using a particular system would be free of effort" [10]. The

framework of this model is shown in **Figure 1**. The model considered that behavior intention is determined by the attitude toward using and perceived usefulness, meanwhile, attitude is determined by perceived usefulness and perceived ease of use. Perceived usefulness and perceived ease of use are both affected by external variables.

Some scholars believe that consumers' online shopping behavior can refer to the technology acceptance model, since by computers, online shopping is accessible to the Internet. Consumers are required to master information technologies such as commodity search engines; consequently, those online consumers not only have the characteristics of ordinary consumers, but also of computers and network users [11]. There are two key variables: one is perceived ease of use, that is, how easy it is for an individual to use a particular information system technology; the other is perceived usefulness, referring to the degree to which individuals can improve their work efficiency with the help of new information technology.

Lin and Judy (2000) first proposed using TAM to explain consumers' acceptance of shopping websites, which showed that perceived ease of use had no significant direct effect on purchase intention, but an indirect effect on purchase intention through perceived usefulness [12]. Cheng Hua and Bao Gongmin (2003) established and tested a model of consumers' acceptance of online shopping based on TAM. Their results demonstrated that there are three key determinants affection purchase attitude and intention: consumers' perception of the usefulness, convenience and safety of online shopping [13]. Many scholars at home and abroad have verified the significance of the main paths in the technology acceptance model, such as the significantly positive impact of perceived ease of use on perceived usefulness [14] [15], the significant positive impact of perceived usefulness on attitudes and intentions [15] [16], and the significant positive impact of perceived ease of use on attitudes [17]. It is worth noting that in the study on the usage intention of smart tourism system in scenic spots by Xu Feifei *et al.*, perceived ease of use significantly affected the usage intention positively [18]. Also, some scholars' research results show that the significance of some routes has not been effectively supported [15]. Therefore, the relationship between variables in the technology acceptance model may be adjusted according to different research objects and research contents. Hence, the following eight hypotheses are proposed:



**Figure 1.** Technology acceptance model.

**H1.** Relevant experience has a significant positive impact on perceiving usefulness.

**H2.** Relevant experience has a significant positive impact on perceiving ease of use.

**H3.** Perceived ease of use has a significant positive effect on perceived usefulness.

**H4.** Perceived ease of use has a significant positive effect on attitude.

**H5.** Perceived ease of use has a significant positive effect on usage intention.

**H6.** Perceived usefulness has a significant positive effect on attitude.

**H7.** Perceived usefulness has a significant positive effect on usage intention.

**H8.** Attitude has a significant positive effect on usage intention.

**H9.** Perceived ease of use and perceived usefulness mediates the overall model.

### 2.3. Internet Word-of-Mouth

Internet word-of-mouth refers to the behavior of consumers, through the Internet, passing on positive and negative opinions about products and services to other consumers [19]. In nearly a decade, academia and the business field have focused on and explored tourism Internet word-of-mouth. The survey conducted by Jin Zexin (2017) shows that 100% of online users tend to share through online interaction after tourism [20], and the word-of-mouth from these online reviews, serves as an important information source for consumers, as well one of the important factors influencing the consumer decision-making [21], besides, it is an important factor for booking service products and decision making [22]. Qin Qiongyu (2012) found that the perceived usefulness and ease of use from Internet word-of-mouth directly affected the development of tourism routes or the selection of tourism products, while the strength of the relationship between tourists themselves and Internet word-of-mouth disseminators directly determined further online communication [23].

As for categories of Internet word-of-mouth, positive and negative, each respectively has different effects on consumption decisions. On the one hand, consumers are more willing to share and spread negative information instead of satisfying consumption experience. On the other hand, compared with positive word-of-mouth, consumers pay more attention to negative ones, which affect their cognition, attitude and purchase intention [24]. Due to the universality and anonymity of the Internet, the influence of negative word-of-mouth is further amplified [25]. Shen Han found that the publicity effect of negative Internet word-of-mouth is significantly greater than that of positive one [22]. It can be seen that negative Internet word-of-mouth has more influence and destructive power on tourists' decision-making. Based on it, the following hypotheses are proposed:

**H10.** Negative Internet word-of-mouth moderates attitude and usage intention.

### 3. Methodology

#### 3.1. Conceptual Model

Based on TAM, this paper builds a model of college students' online tourism booking behavior. It is taken as the research framework helping to analyze the influencing mechanism. The model takes the technology acceptance model theory [10] as the basis and the core, combined with other factors, including the relevant experience of network using, perceived usefulness, perceived ease of use, usage attitude, intention and negative Internet word-of-mouth. This model consists of three parts: model of college students' online tourism booking behavior; influence of relevant experience from external variables on the model; influence of the moderating the variable Internet word-of-mouth on the model.

#### 3.2. Questionnaire Design

##### 3.2.1. Questionnaire Structure

Refer to the main variables of this study: perceived usefulness, perceived ease of use, attitude toward using, intention, relevant experience, measuring scale of Internet word-of-mouth and population characteristics, structured questionnaire is taken as measuring tool. The questionnaire consists of 5 parts, 36 items in total. Likert's scale of 5 grades is used in questionnaire in which respondents are asked to rate their opinions and attitudes towards online tourism booking according to the grades of "5" means "strongly agree"; "4" for "relatively agreement"; "3" for "uncertain"; "2" for "disagree"; "1" for "strongly disagree".

The first part is the pre-questions, which focuses on the education background and stages of the respondents, including two questions with each giving the options. The questionnaire would be stopped if the respondents are not college students.

The second part is the measurement on the Internet access and the basic information of online tourism booking (air tickets, hotels and tickets), which is mainly used to measure their experience in network use by asking 7 questions.

The third part is about the acceptance survey on the online tourism booking, a total of 20 questions.

The fourth part is about the impact of negative Internet word-of-mouth on online booking behavior, including three questions.

The fifth part is a survey on basic personal information of respondents, including gender, average monthly living expenses and the number of trips in the recent year and the city where the university is located.

##### 3.2.2. Questionnaire Structure

These questionnaires have been conducted distributed and collected on an online survey platform for two weeks. A total of 163 questionnaires were distributed and all were collected, with a collection rate of 100%. Among them, there are 2 invalid questionnaires and 161 valid ones, with an effective rate of 98.8%. The following criteria are adopted for the judgment of invalid questionnaires:

1) The survey would be stopped if those who reply the questionnaire are not college students;

2) The answers are same and the duration is not long enough.

According to the data collected from questionnaires, the distribution of samples is relatively average in gender and educational stages, and the respondents scattered in all regions of China. Besides, 96.3% of respondents have more than two years experience of Internet using, and 61.5% spent more than three hours on Internet each day. Among the tourism times in the past year, 59.0% of respondents experienced one or two, and 25.47% have three or four trips. 65.21% think they have rich network experience, 91.3% search relevant tourism products information through the network before the booking, proving the respondents have a considerable ability in Internet using. They are considered as online tourism booking users or potential ones, which further illustrates the effectiveness of selected subjects. **Table 1** presents a descriptive summary of the sample.

**Table 1.** Demographic profile of respondents (n = 161).

Variable	Responses	Frequency	Percent
Gender	Man	75	46.6%
	Woman	86	53.4%
Average Monthly Living Expenses	Less than 1000 RMB	34	21.1%
	1001 - 2000 RMB	102	63.4%
	2001 - 3000 RMB	15	9.3%
	More than 3001 RMB	10	6.2%
Education Stage	Freshman	44	27.3%
	Sophomore	39	24.2%
	Junior	46	28.6%
	Senior	32	19.9%
Network Age	Less than 2 years	6	3.7%
	2 - 5 years (exclude 5 years)	56	34.8%
	5 - 7 years (exclude 7 years)	42	26.1%
	More than 7 years	57	35.4%
Average Online Time per Day	Less than 1 hour	8	5.0%
	1 - 3 hours (exclude 3 hours)	54	33.5%
	3 - 5 hours (exclude 5 hours)	47	29.2%
	More than 5 hours	52	32.3%
The Number of Trips in the Past Year	0 time	15	9.3%
	1 - 2 times	95	59.0%
	3 - 4 times	41	25.5%
	5 - 6 times	7	4.3%
	More than 7 times	3	1.9%

**Continued**

The Area of the University	Northeast China Region	14	8.7%
	Northern China Region	16	9.9%
	Northwest China Region	5	3.1%
	Eastern China Region	13	8.1%
	Southern China Region	98	60.9%
	Southwest China Region	5	3.1%
	Central China Region	10	6.2%

**3.3. Data Analysis**

Data support for the conclusion of this paper is provided by questionnaires which are used to collect the data of college students all over the country. The data analysis is conducted by software SPSS 22.0 which helps to carry out statistical analysis, reliability and validity analysis, factor analysis and regression analysis on effective samples, and verify the research hypothesis. The mediation effect of the model is verified by using the PROCESS V3.3 macro plug-in in SPSS. PROCESS macro plug-in, which is used to test the mediating effect of various mediation models, adjustment models and combination models based on the regression analysis was officially developed and run by Hayes in 2013.

**4. Results****4.1. Exploratory Factor Analyses (EFA)**

As can be seen from **Table 2**, the KMO statistic value of the data is 0.922, greater than 0.90 with the significance level is 0.000, indicating that the questionnaires have a good structural validity and are very suitable for factor analysis. By using SPSS22.0, the characteristic values of 5 factors are found to be greater than 1 through factor analysis, deviating from the original assumption.

As can be seen from **Table 3**, the CR value of the total scale is 0.938, and the factors of the 26 indicators are concentrated on 5 common factors. The characteristic value of the first common factor is 12.226 with 21.966% overall variance contribution rate. The extracted 7 indicators reflect the perceived usefulness of online tourism booking of college students, which is named as “perceived usefulness (PU)” with the CR value of 0.923. The characteristic value of the second common factor is 1.947, the overall variance contribution rate is 19.263, the extracted 10 indicators reflect the using attitude and intention of online tourism booking. Originally, in the hypothetical model, attitude and intentions are two interactive factors, after analysis, it is difficult to distinguish the two due to the possible small differences between the two in the whole perception. So according to the factor analysis, the two are merged into one factor, being named it “attitude and intention (A&I)” with CR value of 0.932. Meanwhile, hypothesis 8 could not be verified. The characteristic value of the third common factor is 1.526, and the overall variance contribution rate is 11.680%. The three extracted



**Table 2.** KMO and Bartlett's test (N = 161).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.922
Bartlett's Test of Sphericity	df	325
	Sig.	0.000

**Table 3.** Result of exploratory factor analyses.

Factors & Items	Factor Loading	Mean	SD	Eigenvalue	Variance Explained	Cronbach's Alpha
Factor 1: PU				12.226	21.966%	0.923
Q4	0.802	4.17	0.868			
Q6	0.772	4.24	0.810			
Q7	0.733	4.11	0.856			
Q5	0.727	4.17	0.841			
Q3	0.705	4.21	0.737			
Q2	0.703	4.00	0.873			
Q1	0.654	4.16	0.843			
Factor 2: A&I				1.947	19.263%	0.932
Q13	0.811	3.87	0.902			
Q20	0.745	3.86	0.884			
Q12	0.737	4.09	0.809			
Q19	0.669	4.21	0.762			
Q18	0.644	4.04	0.897			
Q14	0.615	3.99	0.848			
Q15	0.605	4.02	0.858			
Q17	0.600	4.24	0.884			
Q16	0.530	4.23	0.823			
Q11	0.442	4.11	0.856			
Factor 3: PEU				1.526	11.680%	0.915
Q9	0.802	4.02	0.877			
Q8	0.770	3.88	0.911			
Q10	0.726	4.08	0.866			
Factor 4: NIWOM				1.462	9.051%	0.781
Q21	0.814	4.05	0.879			
Q22	0.796	3.98	0.825			
Q23	0.699	3.99	0.935			
Factor 5: RE				1.027	8.000%	0.720
Q25	0.810	3.14	1.528			
Q26	0.780	2.06	1.291			
Q24	0.775	2.39	1.509			

Note. Total variation explained 69.959%; total scale reliability 0.938.

indicators reflect the perceived ease of use of online tourism booking behavior of college students, so it is named “perceived ease of use (PEU)” with CR value of 0.915. The characteristic value of the fourth common factor is 1.462, and the overall variance contribution rate is 9.051%. Three indicators are extracted and named as “negative Internet word-of-mouth (NIWOM)” with CR value of 0.781. The characteristic value of the fifth common factor is 1.027, and the overall variance contribution rate is 8.000%, which is named as “relevant experience (RE)” with CR value of 0.720.

The cumulative variance contribution rate of these four factors is 69.959%, indicating that the factor analysis can largely reflect the overall information, and the structural validity of this scale is acceptable. And through the factor analysis, attitude and intention are merged into a dimension, together with “perceived usefulness”, “perceived ease of use”, “negative Internet word-of-mouth”, “relevant experience”, corresponds to theoretic model mentioned above. To some extent, they verify the content validity of the scale.

## 4.2. Regression Model

To verify the effectiveness of the research model in this paper, a regression analysis is conducted on four factors: perceived usefulness, perceived ease of use, attitude and intention, relevant experience. The default data in this study is normally distributed, so model 6 of the PROCESS program is used to verify the regression path coefficient of the model composed of the above four factors, and the significance level test is also conducted to verify the validity of the hypotheses proposed above, and further modify the research model. If the path coefficient between two variables passes the significance test, it means that the path coefficient is not statistically significant to zero and the two variables are correlated, otherwise they are not significantly correlated (Table 4).

Through regression model results of Table 5 and Table 6 and 5000 times of the bootstrap analysis, in the original hypotheses, all pass significance test except the impact of relevant experience on the perceived usefulness, namely the H2 fails to pass with H1 and H3 pass, H4 and H5, H6 and H7 pass with being merged into a general hypothesis. The higher the relevant experience value, the stronger the perceived ease of use, but it does not directly affect the perceived usefulness. Is it possible to mediate the perceived usefulness through perceived ease of use? It will be analyzed in detail by the mediating effect. The perceived ease of use will strongly affect perceived usefulness, and the improvement of both will produce an upward attitude and intention by causing influence of medium intensity, prompting respondents to generate intention, and more willing to buy related tourism products and services online.

## 4.3. Moderation and Mediation Analysis

In the PROCESS program, model 6 and model 4 are selected to verify the mediating effect of perceived ease of use and perceived usefulness. In the mediation

**Table 4.** Results for regression model.

Regression Path	Coeff	t	LLCI	ULCI	Result
RE—PEU	0.1516	2.7717***	0.0436	0.2596	Supported
RE—PU	0.0086	0.2539	−0.0585	0.0757	Not Supported
PEU—PU	0.6001	12.4780***	0.5051	0.6951	Supported
PEU—A&BI	0.2180	3.8343***	0.1057	0.3303	Supported
PU—A&BI	0.4059	5.4424***	0.2586	0.5532	Supported

Note. \*\*\* $p < 0.001$ ; SC = standardized coefficients; LLIC = lower limit confidence interval; ULCI = upper limit confidence interval.

**Table 5.** Bootstrap results for regression model parameters.

Regression Path	Coeff	BootSE	BootLLCI	BootULCI	Result
RE—PEU	0.1516	0.0551	0.0459	0.2648	Supported
RE—PU	0.0086	0.0320	−0.0566	0.0684	Not Supported
PEU—PU	0.6001	0.0807	0.4349	0.7479	Supported
PEU—A&BI	0.2180	0.0736	0.0693	0.3551	Supported
PU—A&BI	0.4059	0.0980	0.2295	0.6114	Supported

Note. Level of confidence for all confidence intervals in output: 95.0000; Number of bootstrap samples for percentile bootstrap confidence intervals: 5000.

**Table 6.** Mediation analysis result.

Relationships	Total Effects	Direct Effects	Indirect Effects	LLCI	ULCI	Result
<b>MODEL 4</b>						
PEU-A&I	1.8755***	0.8353***				
PEU-PU-A&I			1.0402	0.5885	1.5431	Supported
<b>MODEL 6</b>						
RE-A&BI	0.5248***	0.2374*				
RE-PEU-A&I			0.1167	0.0230	0.2506	Supported
RE-PU-A&I			0.0148	−0.0965	0.1272	Not supported
RE-PEU-PU-A&I			0.1560	0.0377	0.3249	Supported

Note. \* $p < 0.05$  \*\* $p < 0.01$  \*\*\* $p < 0.001$ ; LLIC = lower limit confidence interval; ULCI = upper limit confidence interval.

model 4, the variables included perceived usefulness, perceived ease of use, attitude and intention. The results showed that perceived ease of use plays a mediating role in perceived usefulness and attitude and intention with the total effect of 1.8755, and the direct effect and indirect effect are 1.0402 and 0.8353 with the relative effect values of 55.5% and 44.5%, respectively.

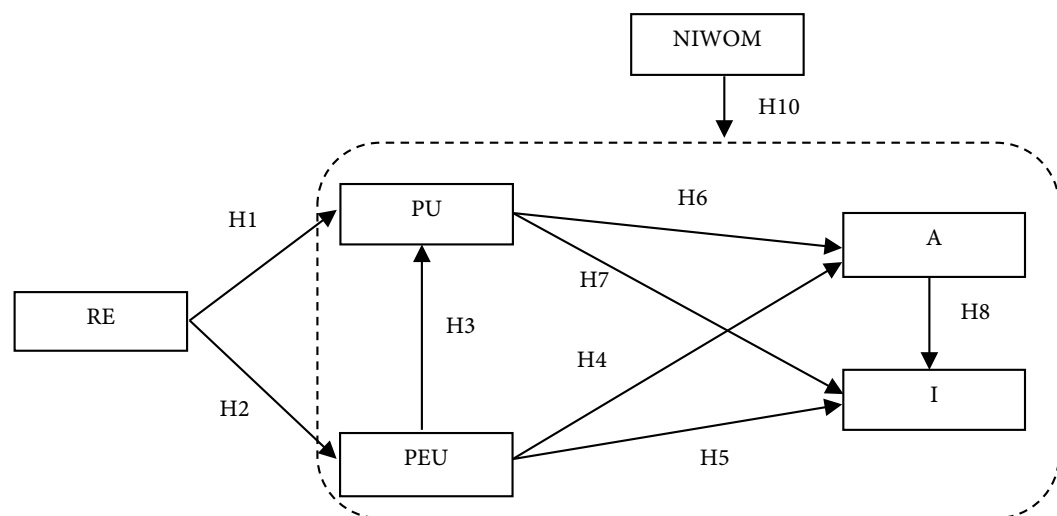
Relevant experience, in model 6, is added to verify the intermediary effect of the overall model, the results show that partial mediation path, and the path from relevant experience to attitude and intention have significant effect with

the total effect value of 0.5248. The direct effect is significant under the confidence level of 0.05 with significant effect value of 0.2374, the relative effect value of 45.2%; In the indirect effect, the effect value of impact of perceived ease of use on attitude and intention is 0.1167, proving that mediating path effect is significant, and the relative effect value is 22.2%. The indirect effect of perceived usefulness on attitude and intention is not significant. The perceived usefulness is affected by perceived ease of use, and the effect value that affects the attitudes and intentions of the respondents is 0.1560. The mediating effect of this path is significant with a relative effect value of 29.7%. Therefore, the hypothesis H10 about the moderating effect is effectively verified.

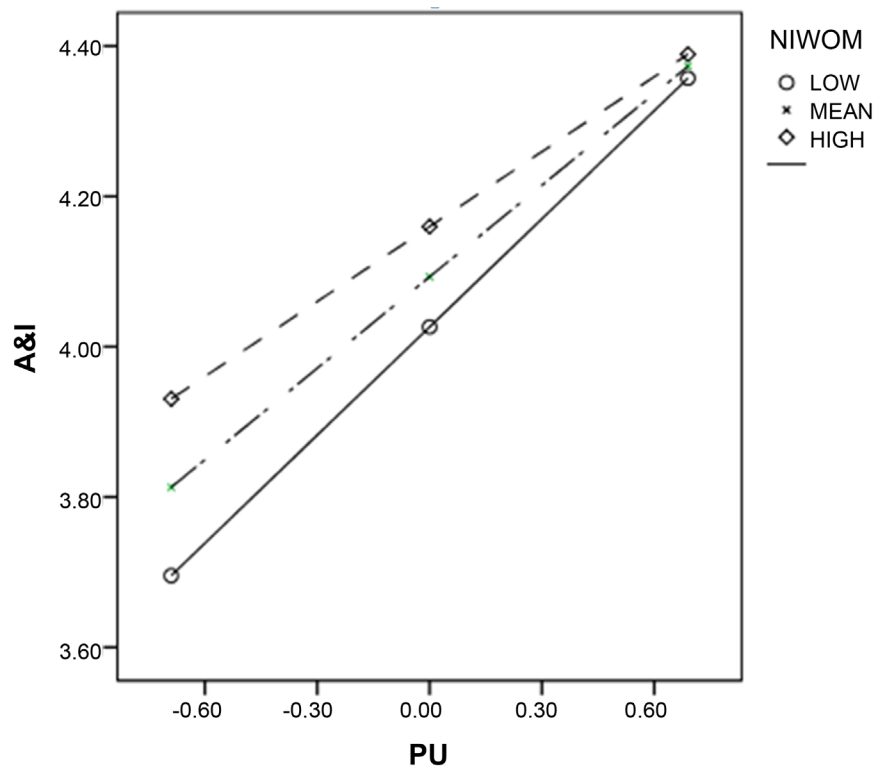
It can be seen from **Table 7** that the non-standardized coefficient of the negative Internet word-of-mouth adjustment item is  $-0.1432$ , indicating that the adjustment variable has a negative adjustment effect on the perceived usefulness positively affecting attitude and intention. **Figure 2** shows that the higher the perceived negative Internet word-of-mouth ( $M + 1SD$ ), the smaller the positive predictive effect produced by perceived usefulness on attitude and intention, vice versa. That is to say, with the increase of perception on Internet word-of-mouth, it is harder to improve attitude and intention by increasing perceived usefulness, so the H9 about regulating effect is validated (**Figure 3**).

**Table 7.** Moderation analysis result.

	Effect	se	t	p	LLCI	ULCI
PU*NIWOM	-0.1002	0.0408	-2.4567	0.0151	-0.1808	-0.0196
NIWOM ( $M - 1SD$ )	0.4795	0.0711	6.7484	0.0000	0.3392	0.6199
NIWOM ( $M$ )	0.4059	0.0746	5.4424	0.0000	0.2586	0.5532
NIWOM ( $M + 1SD$ )	0.3323	0.0887	3.7449	0.0001	0.1570	0.5.75



**Figure 2.** A model of college students' online tourism booking behavior. NIWOM = negative Internet word-of-mouth; RE = relevant experience; PU = perceived usefulness; PEU = perceived ease of use; A = attitude; I = usage intention.



**Figure 3.** The moderating effect of negative Internet word-of-mouth on the relationship between perceived usefulness and attitude and intention.

## 5. Conclusions

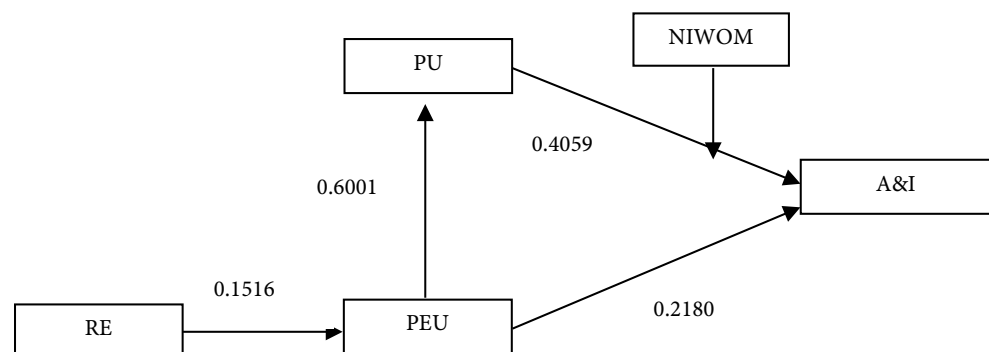
This study attempts to explore the key influencing factors and links of college students' online travel booking behavior. By introducing negative Internet word-of-mouth and relevant external experience, combining perceived usefulness, perceived ease of use, usage attitude and usage intention, the behavior model of online travel booking for college students is constructed and modified.

Through the data analysis of the empirical study, the path coefficients among various factors in the model are discussed, and most of the hypotheses are verified. Specifically, H2 (relevant experience has a significant positive impact on perceiving ease of use), H3 (perceived ease of use has a significant positive effect on perceived usefulness), H9 (negative Internet word-of-mouth moderates attitude and usage intention) and H10 (perceived ease of use and perceived usefulness mediates the overall model) have been verified. Among college students, the discrimination between attitude and intention is not very high, which is easy to be confused. Therefore, the two factors in the original model are combined to extract a common factor according to the questionnaire data in the factor analysis, but it is still significantly affected by perceived usefulness and perceived ease of use. H4 (perceived ease of use has a significant positive effect on attitude) and H5 (perceived ease of use has a significant positive effect on usage intention), H6 (perceived usefulness has a significant positive effect on attitude) and H7 (perceived usefulness has a significant positive effect on usage intention) are com-

bined into a general hypothesis and verified while H1 (relevant experience has a significant positive impact on perceiving usefulness) and H8 (attitude has a significant positive effect on usage intention) are not verified. According to the above test results, the adjusted research model and regression path coefficients are shown in **Figure 4**.

Compared with previous research results, it is found that perceived usefulness is still the key factor influencing consumers' online tourism booking behavior, while perceived ease of use is another important factor. However, for college students, attitude and intention are combined into a common factor, which together have an impact on the college students' online tourism booking behavior. Theoretically, the study on the influencing factors is conducive to further exploring college students' online tourism booking behavior. By studying the college students' online tourism booking behavior model based on TAM, it is found that 67.867% of this model is explained by perceived usefulness, perceived ease of use, attitude and intention toward using, relevant experience Internet word-of-mouth. Consistent with previous studies, perceived usefulness is still the most important intermediary factor, which is significantly related to the attitude and intention, which perceived ease of use is another important factor affecting attitude and intention.

There is a significant positive impact between relevant experience and perceived ease of use. That is, the more relevant experience college students have, the easier for them to identify the authenticity and effectiveness of information, so as to understand its practicality and operation, the more they perceive the ease of online tourism booking. And the intermediary effect of perceived usefulness and perceived ease of use perception impact the attitude and intention of online booking. Negative Internet word-of-mouth has a negative moderating effect on the relationship between perceived usefulness and attitude and intention. This is because of the rapid development of network information, the credibility of network information is becoming lower and lower, and the authenticity of many positive word-of-mouth needs to be studied, while that of negative one is relatively large. Therefore, college students pay more attention to negative one and whether they will buy online products or services is affected by it.



**Figure 4.** Modified model of college students' online tourism booking behavior.

## 6. Implications

This study provides favorable theoretical support for the tourism e-commerce platform that offers customized tourism products for college students. Because of the perceived usefulness is still a key factor affecting college students' online tourism booking behavior, so tourism enterprises should take the demands of college students as the center, from the perspective of their perceived usefulness design reasonable online booking products and services so as to improve repeated purchase rate, develop more potential users and promote the stable and healthy development of online tourism. Furthermore, college students are active and willing to share their own feelings online. Compared with the positive Internet word-of-mouth, the negative one plays a significant negative regulatory role to the attitude and intention, so online tourism booking platform needs to pay more attention to the public opinion monitoring. More importantly, it needs to solve the problem at its source by providing real, cost-effective products and services, and fluent booking process, effective and timely feedback and after-sale mechanism, meanwhile, control technology and service level at each key node of online booking, making respondents enjoy the thoughtful service, and buy the products they prefer, as well completing high-quality online booking and offline experience and reducing the negative online word-of-mouth at the source to improve its online booking intention.

## 7. Limitations and Future Research

This study is not free of limitations. Firstly, the sampling size in this study is insufficient due to comprehensive reasons. 60% of the 161 questionnaires are collected from Southern China, mainly scattering in Guangzhou and Shenzhen, so the data analysis and empirical research conclusions are not representative enough. Moreover, research objects can be further subdivided to carry out empirical research on college students in first, second and third-tier cities, so as to provide more targeted research results and data support for tourism enterprises and online tourism booking platforms.

Secondly, the influencing factors account for the model need to be further explored from other perspectives for they are diversified. This paper only introduces the negative Internet word-of-mouth as a moderating variable and relevant experience as an external variable to conduct relevant research and make new findings. From the perceived risk or other angles, the influence of perceived risk or other factors on the online tourism booking behavior could be further studied, and research model of college students' online booking behavior could be further explored too, with the purpose of conducting a more comprehensive analysis on the impact mechanism, embracing better understandings to the motivation of college students choosing online booking.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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