The Impact of Online Comments on Consumers' Purchase Decisions in Economy Chain Hotels

Ou Li, Zhou Jing, and Yuewei Lin

Abstract—**Online customer reviews are important in influencing online booking in the hotel industry. The uncertainty of network coexists with customer dependence. This paper expects to guide the overall layout of Economy Chain Hotels by macro-policy based on the policy released by the government and provide some reference for the strategic layout of Economy Chain Hotels. Through the case study of Xiamen City, TAM model was used to investigate perceived ease of use and perceived usefulness, and the perceived risk and consumer purchase decision variables were added to the questionnaire. This paper makes comments and suggestions: Improve perceived ease of use, convenient for consumers; enhance perceived usefulness, more informative and accurate data; reduce perceived risk, increase consumer trust; combine local culture, provide personalized services; timely adjust strategy and macro layout. Promote the interests of both the supply and demand sides, and provide decision-making reference for relevant departments.**

Index Terms—**Factors influencing consumer purchasing decisions, online review, TAM model, Xiamen Economy Chain Hotels.**

I. INTRODUCTION

In recent years, the size of Chinese netizens, the size of online travel booking users, and the proportion of Internet users booking online have reached record highs. The official platform of the hotel and third-party online agents such as Ctrip, Lv Mama, and Tuniu have joined the network distribution ranks. Online commentary has become an important reference before consumers make purchasing decisions. The drawbacks of uncertainties coexist with the dependence of customers. However, research in this area is rare. Therefore, this paper takes Xiamen City as a research case, and is committed to researching the in-depth comments of online reviews on the purchasing decisions of Economy Chain Hotels' consumers, in order to provide suggestions for relevant departments and operators, and to inspire consumers to treat online comments correctly and rationally.

At present, Trustdata's "2018 China Online Hotel Reservation Industry Development Analysis Report"[1] mentioned that the traditional OTA represented by Ctrip and the super platform represented by the Meituan are at loggerheads. Meituan has won the industry double championship with 67.9 million orders and 72.9 million room nights. The total night amount of Meituan with reaching

72.9% exceeded the sum of Ctrip systems. (Fig. 1). Therefore, the data of Meituan Hotel is more comparable persuasive.

The distribution of Economy Chain Hotels in Xiamen is directly proportional to the level of economic development and the level of tourism development. It mainly presents the island's dense distribution and sparse distribution outside the island (Fig. 2). The aggregation of various brands is more obvious.

Meituan Online has given credits to the Economy Chain Hotels in terms of service, facilities, location and hygiene. Although the stores are chain-operated, the feelings for consumers are not the same, and they are not completely unified. The price is different depending on the location. The better the location, the more expensive the price is, usually between 140-250 yuan / room. The Economy Chain Hotels studied in this article are limited to the online name "XX Economy Chain Hotels", excluding hotels like Qitian Youpin and Shangkeyou Select Hotel which are slightly higher than Economy Chain Hotels.
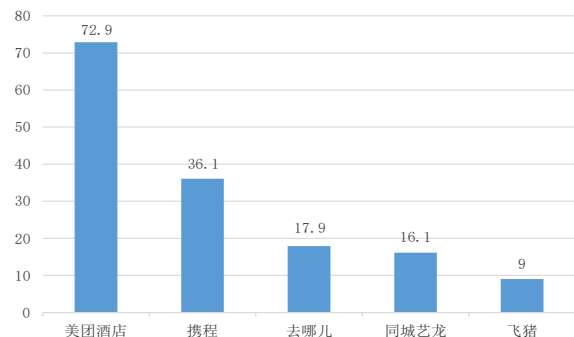

Fig. 1. Online hotel reservation room night ranking [2].

Fig. 2. Distribution of Xiamen economy chain hotels.

II. LITERATURE REVIEW

Yue Zhonggang *et al* (2015) [3] defined online reviews as the evaluations of goods or services published by consumers on corporate websites or third-party platforms. Huang Yan (2012) [4], Zhu Feng Yan, Zhang Yan (2016) [5] also elaborated on the definition which online comment is a statement published on the Internet after online shopping, which may be positive or negative. It can be a personal experience or the experience shared by others.

The term "consumer purchase decision" will be used in this thesis to refer to an action of searching, analyzing and making decision in order to meet their own needs (Min Shu Hui, 2016) [6].

The TAM model is called the Technology Acceptance Model and is proposed by Davis, Bagozzi & Marshaw (1989) [7]. The core lies in the perception of ease of use and perception of useful attitudes affecting users. Attitude affects behavioral tendencies, and behavioral tendencies determine actual actions. This model is widely used in the study of online consumer behavior.
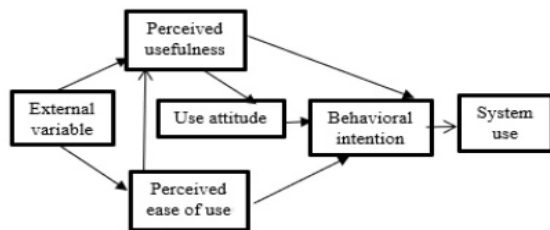

Fig. 3. Technology Acceptance Model (TAM).

Perceived risk has been researched and explored by scholars since it was introduced by Bauer（1960）[8], which has led to the development and improvement of the "perceived risk" factor. With the development of information technology, people began to shop online, so the unknowable risk of consumers online shopping is called "online perceived risk."

Economy Chain Hotels are a kind of hotel business that exist compared to the traditional full-service hotels. They are mainly based on chain-based franchise or franchise mode. Through chain operation, they achieve economies of scale and enhance brand value. This is also a distinct feature of Economy Chain Hotels that distinguish them from other star hotels and social hotels.

III. RESEARCH METHODS

This paper constructs a research model, which is divided into three independent variables: perceived usefulness, perceived ease of use and perceived risk, and a dependent variable of consumer purchasing decision behavior. The use of Likert scale (5-level) scoring method. The following assumptions are made:

H1: perceived usefulness has a positive impact on consumers making purchasing decisions;

H2: perceived ease of use can have a positive impact on consumers making purchasing decisions;

H3: perceived risk is positively related to consumers making purchasing decisions;

H4: Perceived usefulness has an impact on perceived ease of use.

The consumers who booked the Economy Chain Hotels on the Internet were selected as survey objects, and the questionnaires were distributed by online survey. A total of 211 questionnaires were collected, of which 200 were valid questionnaires, and relevant tests were conducted through SPSS24.0.

1. Consumer characteristics, including consumer education, income level, and occupation. Among the 200 valid questionnaires collected, 50% of the respondents were junior college and undergraduate, 38.5% under the bachelor degree, 11.5% under the bachelor degree, and the highest income level was 1001 yuan-3000yuan, accounting for 41.5%. In terms of careers, students accounted for 37.5%, and company employees accounted for 26%. It can be seen that the consumers who purchase Economy Chain Hotels are mainly students and company employees. The income level is mostly below 3,000 yuan, and the income level is closely related to the occupation. The educational level shows that most of the consumers of Economy Chain Hotels have received higher education and have a certain understanding of their own consumption behaviors and consumption attitudes.

2. Reliability analysis: The overall reliability test results are shown in Table I. The Cronbach's Alpha coefficient is 0.891, and the Cronbach's Alpha coefficient based on the standardized term is 0.891 (the reliability of the questionnaire is between 0.8 and 0.9 is within the acceptable range). The internal stability of the questionnaire is high, with high reliability and high reliability.

TABLE I: OVERALL RELIABILITY ANALYSIS RESULTS

Cronbach's Alpha	Standardized item based Cronbach's Alpha	Number of items
0.891	0.891	19

3. Factor analysis: Before factor analysis, KMO value and Bartlett sphere test are required to determine whether the scale data is suitable for factor analysis. From Table II, the KMO value is 0.957 (close to 1), the Bartlett sphere test approximates the chi-square value of 5859.942, and the significant level is 0.0000, indicating that the questionnaire is suitable for factor analysis.

TABLE II: KMO AND BARTLETT TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.957
Bartlett's Test of Sphericity	Approx. Chi-Square	5859.942
	df	171
	Sig.	0.0000

As shown in Table III, the load of the 19 indicator factors contained in the questionnaire is greater than 0.5. At the same time, in order to check whether the indicators contained in each common factor are consistent, this paper also analyzes the internal indicators of the four common factors. According to the principal component analysis method, the cumulative variance contribution rate of the four factors is 82.536%, indicating that the factor analysis reflects the overall information more completely, and the internal consistency of the factors is higher, which is in line with the research needs of this paper.

4. Relevant analysis: Table IV shows that perceived usefulness and perceived ease of use are positively correlated with consumer purchasing decision-making behavior, and the relationship is significant (0.860 and 0.857), indicating that perceived usefulness and perceived ease-of-use have a great influence on consumers' purchasing decision making. Perceived risk is negatively correlated with consumer purchasing decision behavior (-0.140), indicating that consumers' purchasing decisions may be reduced when perceived risk increases. Table V shows that the correlation coefficient between perceived usefulness and perceived ease of use is almost 0 (0.006), and the correlation is extremely weak, and there is basically no correlation between the two.

TABLE III: PERCEPTUAL FACTOR ANALYSIS RESULTS

Extraction factor and its internal indicators	Factor load	Eigenvalues	Variance contribution rate	Reliability coefficient a
Factor 1: Perceived useful				
Q5: Using the network makes it easier to search for the hotel information you need.	0.958			
Q5: The network can learn about the experience of other consumers and provide reference for purchasing Economy Chain Hotels.	0.969			
Q5: Provide timely, effective and rich information on the network to increase the space of choice.	0.968			
Q5: The network can improve the efficiency of search or reservation of Economy Chain Hotels	0.972	4.663	28.108%	0.982
Q5: With the help of the network, you can complete your search and reservation with the quick chain.	0.961			
Factor 2: Perceptual ease of use				
Q6: Online commenting on the way of publishing, distributing, using, and exchanging information makes people feel time and effort.	0.966			
Q6: Search, reservation, payment and other processes are easy to master and operate when booking a hotel.	0.966			
Q6: It's easy to search for online reviews of hotels that are useful to you..	0.964	4.626	27.851%	0.980
Q6: It is usually convenient to communicate with hotel service providers when booking hotels on the Internet.	0.961			
Q6: In general, booking a hotel online is a very convenient thing.	0.952			
Factor 3: perceived risk				
Q7: Online reviews have inconsistent evaluations of hotels, which will cause psychological conflicts and difficult choices.	0.968			
Q7: I am worried that the information obtained through the online review of the hotel is false information.	0.962	4.611	17.498%	0.979
Q7: Worried that actual products are different from expectations	0.962			
Q7: Worried about online booking hotel website service providers are not trustworthy.	0.961			
Q7: In general, there are many uncertain risks in booking hotels online.	0.948			
Factor 4: Consumer purchase decision behavior				
Q8: I would be willing to book a hotel by flipping through online reviews.	0.870			
Q: When booking a hotel, you will be queried online for the hotel's online review.	0.892			
Q8: I will book if I meet my request after checking online comments.	0.873	3.022	15.969%	0.891
Q8: I will not stay for hotels with negative comments.	0.841			

TABLE IV: CORRELATION ANALYSIS OF CONSUMER PURCHASE DECISION

	Consumer purchase decision behavior	
Perceived useful	Pearson correlation	0.860**
	Sig	0.000
Perceptual ease of use	Pearson correlation	0.857**
	Sig	0.000
perceived risk	Pearson correlation	-0.140
	Sig	0.560

behavior and perceived usefulness, perceived ease of use, and perceived risk
**Significant correlation at the 0.01 level (two-tailed)

TABLE V: CORRELATION ANALYSIS OF PERCEIVED USEFULNESS VERSUS PERCEIVED EASE OF USE

	Perceived useful	
Perceptual ease of use	Pearson correlation	0.006
	Sig	0.825

5. Regression analysis: Table VI shows that the coefficient R of the regression model is 0.928, the coefficient R is 0.861, and the adjusted R square is 0.861. This proves that the model fits well and the interpretation reaches 86.1%.

TABLE VI: REGRESSION MODEL

model	R	R2	Adjusted R 2	Standard estimated error
1	0.928	0.861	0.861	0.1310

TABLE VII: REGRESSION ANALYSIS BETWEEN INDEPENDENT VARIABLES AND DEPENDENT VARIABLES

	Standardization coefficient		Standardization coefficient	T	Sig
	B	Standard error	Beta		
(constant)	0.225	0.154		1.461	0.284
Perceived useful	0.393	0.068	0.396	5.779	0.000
Perceptual ease of use	0.213	0.051	0.347	4.176	0.001
perceived risk	-0.033	0.137	0.034	-0.241	0.809

Table VII shows that the significant level of perceived usefulness and perceived ease of use is significantly lower than the test level of 0.05, and the T values are 5.779 and 4.176, demonstrating that the perceived ease of use and perceived usefulness have a significant impact on consumer purchase decision behavior. The T value of perceived risk is negative, and the significance is significantly greater than 0.05, which shows that the perceived risk has a negative correlation with the impact of consumer purchasing decisions. Thus, the regression equation for consumers to purchase decision-making behavior is: Dependent variable: consumer purchase decision behavior=0.225+0.393 perceived usefulness +0.213 perceived ease of use + (-0.033) perceived risk

6. Test hypothesis: From the previous analysis of the questionnaire, the hypothesis of H1 and H2 proposed in this paper is established, and the perceived usefulness and perceived ease of use will have an impact on the consumer network booking Economy Chain Hotels, and the effect is significant. Consumers are more aware of the usefulness and perceived ease of use when booking online, and the more likely they are to make purchasing decisions; on the contrary, if online comments interfere with consumers making purchasing decisions, making consumers feel inconvenient and less expensive. By booking the efficiency of a hotel online, the likelihood of a consumer making a purchase decision will also decrease. Consumers make a negative correlation between purchasing decisions and perceived risks. The higher the perceived risk of consumers, the less likely they are to make purchasing decisions. Therefore, the H3 hypothesis is not true; the H4 hypothesis is not established, and the perceived usefulness of consumers There is no connection to perceived ease of use.

IV. THE RESEARCH RESULTS

This paper studies the relevant data of Meituan Hotel and conducts field research to form a regional distribution map (Fig. 2). It is analyzed that the distribution of Xiamen Economy Chain Hotels are positively related to the level of regional economic development or tourism development. The overall distribution of the island and the sparse layout of the island; Secondly, the author's comparative analysis of the data on the Meituan Network found that the hotel's various indicators, such as high and or low prices, the quality of the location is not proportional to the customer's evaluation of the hotel. But one thing that can be determined is that the more the number of posts, the smaller the score of the customer evaluation is relatively stable and relatively stable. Finally, the consumer still takes the risk seriously when booking online, and will worry about browsing the online comment. Risks may be incurred after making a purchase decision. People are more worried about the authenticity and accuracy of the information they receive. The greater the risk, the less likely consumers are to make purchasing decisions.

A. Improve Perceived Ease of Use

The analysis of the questionnaire found that consumers are very concerned about the importance of ease of use. More than 80% of the five indicators in the questionnaire have chosen "important" or "very important". On the official website of their respective brands, the payment method is almost incomplete. For example, Hanting Hotel does not support WeChat payment, and bank card payment is not acceptable in Qitian Hotel. Today, online payment is becoming more and more convenient. People tend to use a certain payment method and use it all the time. If the payment method is incomplete on the platform, the perceived ease of use of such consumers will be greatly reduced. On the Meituan website, merchants often put the contact phone number in the "Detailed Facilities" sub-column that is easily overlooked. It is recommended that the contact information of the merchant be placed in a more conspicuous place to facilitate consumers.

B. Enhance Perceived Usefulness

Under the premise of ensuring that the room reservation page is not disorderly, appropriate marketing activities or travel recommendations can not only stimulate the potential demand of consumers, but also enhance the hotel's high efficiency, and also prepare travel lessons for customers. Secondly, whether it is a third-party website or a hotel official website, the description of hotel facilities or rooms should be accurate and true. The hotel description stays in the introduction of the infrastructure, but also from the consumer point of view, spend more time to design, you can add some small videos and accurate photos for consumers' reference.

C. Reduce Perceived Risk

Regardless of the official website, third-party website or other comment platform, the bad feedback to consumers should be reacted as quickly as possible and resolved in time to cultivate consumer loyalty. The authenticity of the room or service information and the authenticity of online comments on the website can increase consumer trust, reduce perceived risk, and increase the probability of making purchase decisions.

D. Combine Local Culture and Provide Personalized Service

As a well-known tourist city, Xiamen has received a total of 89 million visitors in 2018. As a chain business model, Economy Chain Hotels are objectively less than the homestay in terms of personalized service. Layout and brand competition should not be underestimated. Therefore, Economy Chain Hotels should actively integrate into the culture with Xiamen characteristics while demonstrating their own characteristics, so that standardized services and personalized services can be combined to increase customer's good impression and loyalty.

E. Strategic Adjustment and Macro Layout

Xiamen City is located in the special zone. Since the implementation of the "the Silk Road Economic Belt and the 21st-Century Maritime Silk Road (the Belt and Road Initiative)", it has become an important hub and distribution point connecting "the Silk Road Economic Belt" and "the 21st-Century Maritime Silk Road", and has radiated the Southeast Asian Chinese Circle and even the whole through Xiamen-Chengdu Expressway, Central Europe and Central Asia. The world is more prominent. Economy Chain Hotels have to adjust and respond to strategic policies and macro layout.

At the "8th China Hotel Culture Festival" held on April 10, 2019, Professor Dai Bin, the dean of the China Tourism Research Institute, pointed out that the current tourists have moved from "have or haven't" to "good or bad" and even more. Paying attention to the good life during the tour, we should do the most basic safety, hygiene and comfort. Don't do some strange design for the sake of unconventionality. Compared with the perfect performance, consumers are more accepting of sincerity. Economy Chain Hotels' brand should seize the great opportunities both inside and outside, ensure the quality while expanding the market, pay full attention to online evaluation, improve the service quality in a targeted manner, achieve parallel growth and quality, and attract more consumers with high cost performance.

The lack of time lacks the pre-test of the questionnaire, which objectively affects the scientificity and rigor of the paper. At the same time, due to the space, when the research variables are set, the independent variables are not rich enough, and there is no intermediate variable. The construction of the research model is slightly rough and increased. The uncertainty of some indicators in the questionnaire analysis; due to the limitations of questionnaire distribution and recycling (only online distribution), the limitations of the sample, may cause some errors in the results of the paper. These are all to be further improved in the future, and more and more in-depth exploration.

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