Consumers' Preference Factors for Choosing Homestays: A Study on Coping Strategies Based on Big Data

Yutong Wang[✉] and Ziyu Deng

College of Business Administration, Guangdong University of Finance and Economics, Guangzhou, China
191070464@qq.com

Abstract. With the advent of the era of big data, the massive data created by Internet users makes online reviews an important network reference factor. This paper uses PYTHON to collect the evaluations of related consumers on homestay websites and analyzes their evaluations using NVIVO. The main conclusions are as follows: Knowledge sharing and information exchange in consumer participation behavior have a positive impact on perceived respect and expected quality, respectively.; Perceived respect and expected quality have positive effects on store satisfaction respectively, and price changes play a moderating role in perceived respect and store satisfaction. This article puts forward some suggestions for merchants to improve consumers' satisfaction with online shopping in the process of interacting with consumers.

Keywords: big data · homestays · online reviews · preference factors · emotional tendencies · suggestions

1 Introduction

Thanks to the rapid development of social networking sites and e-commerce, more and more users comment on products or services on the Internet through online reviews, and online reviews have become a very important carrier of user demand information. It usually contains the user's emotional attitude towards a product or service in multiple aspects, with fine-grained characteristics, expressing the user's needs or preferences for different attributes of the same product [1]. Therefore, by mining users' emotional tendencies in online reviews, users' needs can be more accurately obtained, so as to provide users with goods and services that meet their needs and preferences [2].

Based on the above background, this paper analyzes the content of online reviews, preprocesses the review text, extracts key high-frequency words, and constructs a consumer preference factor system combined with the social network graph of high-frequency words. After the construction is completed, the five-point Likert scale method is used to quantify and classify the consumers' emotional tendencies in the online review raw materials, and then obtain the comment frequency and satisfaction level of consumers' preference factors for homestay selection. At the same time, in the process of

quantification, special attention is paid to the content of consumer negative sentiment comments, combined with data analysis, so as to put forward targeted improvement suggestions [3].

2 Literature Review

Content analysis is a research method that analyzes the content of the research object in depth and sees the essence through the phenomenon. American communication scientist Bernard Berelson first defined it as an objective, systematic, A research method that quantitatively describes the apparent content of communication. Therefore, the emotional information contained in consumer online reviews can be effectively extracted.

The above method divides the text content into specific categories, calculates the frequency of each category of content elements, and describes the obvious content characteristics. The method has three basic elements, namely objective, systematic and quantitative. The text content used as a counting unit can be words, symbols, topics, sentences, paragraphs or other grammatical units, or it can be a general concept of "item" or "space-time".In order to effectively analyze the content, this paper will also code and classify online reviews, and then analyze the emotional tendencies of consumers.

3 Data Analysis

Aiming at the current situation of uneven quality of homestays and poor consumers' experience of homestays, this research evaluates all aspects of homestay products based on consumers' online reviews, hoping to know what are the core preferences of homestay consumers, and what are the core preferences of homestay consumers. In the content of negative comment texts, find out the deficiencies that consumers think of the current homestay products, in order to achieve the purpose of putting forward feasible optimization strategies for improving the quality of homestay products [4]. The specific research process and operation are described below.

3.1 Data Collection

The sampling logic of this study on the review texts of homestays in five cities is as follows: Enter the city name on the Airbnb platform, and screen 10 homestays that meet the sampling conditions according to the order of page display [6]. The reviews are used as research samples; The number of reviews for the selected homestays must be more than 50 to ensure that the number of valid reviews can be screened in the future; The latest review date for the selected homestays must be in January 2021. Months later to ensure the timeliness of the review of the homestay; an effective review means that the review text must involve an evaluation of a certain aspect of the homestay; review texts that are too short and have no analytical value are regarded as invalid comments, such as "Bang", "really good", etc. If invalid comments need to be eliminated during the selection process, they will be replaced by the next valid comment. 20 reviews of 10 homestays were selected in each of the five cities, and finally a total of 1,000 valid review samples were obtained.

3.2 Analysis Process

The author uses the Gooseeker word segmentation tool to import 1000 comment samples and complete the word segmentation, and then select high-frequency keywords according to the word segmentation results. When selecting high-frequency keywords, based on the evaluation categories and high-frequency words involved in the family hotel evaluation system scale proposed by Wang Huiling (2015) as a reference, the selected high-frequency words must also meet the frequency of 10 or more occurrences. In the selection process, words with low relevance are eliminated, and finally 135 high-frequency keywords that meet the requirements are obtained [7]. Most of these high-frequency words are nouns and adjectives, and some adjectives are used to modify a certain noun. Therefore, you can use the Gooseeker software to generate a social network graph of high-frequency words to observe which adjectives are used to modify which nouns., to identify and group related nouns and adjectives into one category.

After further identifying and classifying these 135 high-frequency keywords, the author supplemented and modified Wang Huiling's family hotel evaluation system scale according to the obtained high-frequency words and their categories to ensure that each high-frequency word can be classified into One of them forms a system consisting of 6 first-level preference factors (location, room facilities, service functions, personalized features, cost-effectiveness and marketing experience) and 17 s-level preference factors (traffic accessibility, surrounding environment, easy to find) The system of preference factors for consumers to choose homestays (Table 1).

Using Nvivo 11 software, the original review text is encoded sentence by sentence, and the corresponding content is classified into a certain category of preference factors, so as to obtain the evaluation frequency of consumers' preference factors for homestays in the review text. The factors that consumers value or experience deeply about themselves will be reflected in the comments, so the more times a factor is mentioned in the comment text, the more the factor is the preference factor that consumers pay attention to when choosing a homestay [8].

In the review sample, the six aspects of business attitude (49.40%), traffic accessibility (47.50%), surrounding environment (38.00%), hardware setting (34.00%), hygiene level (33.00%) and atmosphere feeling (31.50%) The frequency of factors involved in

Table 1. Frequency statistics table

Preference factor	Frequency
Marketing experience	166
Cost-effective	129
Personalized Features	568
service function	691
room facilities	917
Geographical location	907

Table 2. Frequency statistics table of preference for homestays in consumer reviews

primary preference factor	secondary preference factor	Frequency (times)	Proportion = (frequency/1000)	sort
Geographical location	traffic accessibility	475	47.50%	2
	Surroundings	380	38.00%	3
	Easy to find	52	5.20%	15
room facilities	articles for daily use	100	10.00%	11
	hardware setup	340	34.00%	4
	Hygiene	330	14.70%	5
	house layout	147	33.00%	8
service function	business attitude	494	49.40%	1
	security	26	2.60%	17
	Catering	39	3.90%	16
	Other service functions	132	13.20%	9
Personalized Features	Decoration layout	188	18.80%	7
	Atmosphere	315	31.50%	6
	Image characteristics	65	6.50%	14
Cost-effective	Value for money/price	129	12.90%	10
Marketing experience	Consistency/Authenticity	84	8.40%	12
	response speed	82	8.20%	13

Table 3. Sentiment Propensity Score for Consumer Reviews

primary preference factor	secondary preference factor	evenly divided	sort
Geographical location	traffic accessibility	4.886	3
	Surroundings	4.703	10
	Easy to find	4.327	15
Room facilities	articles for daily use	4.490	13
	hardware setup	4.329	14
	Hygiene	4.761	6
	house layout	4.190	17
service function	business attitude	4.931	1
	security	4.192	16
	Catering	4.718	8
	Other service functions	4.583	12

(*continued*)

Table 3. (*continued*)

primary preference factor	secondary preference factor	evenly divided	sort
Personalized Features	Decoration layout	4.835	5
	Atmosphere	4.867	4
	Image characteristics	4.723	7
Cost-effective	Value for money/price	4.705	9
Marketing	Consistency/Authenticity	4.595	11
	response speed	4.902	2

the 1,000 reviews accounts for more than 30%, and it is quite different from the seventh-ranked factor decoration layout (18.80%). Therefore, this study believes that consumers' preference for homestays is mainly concentrated in their business attitudes., traffic accessibility, surrounding environment, hardware settings, sanitation and atmosphere (Tables 2 and 3).

4　Conclusions

4.1　Results

According to the above analysis of consumer reviews of homestays, it is found that consumers are most concerned about the business attitude of homestay products, traffic accessibility, surrounding environment, hardware settings, hygiene and atmosphere feeling. The five aspects of traffic accessibility, ambience, and decoration are the highest. However, in each preference factor, there are reasons that cause consumers to have different degrees of negative emotions (Li 2019). Some problems are unavoidable for homestays in operation. Therefore, businesses that want to operate homestays in the future can take these problems into account; and some problems can be avoided. Improvements are made through measures to enhance the consumer experience. Therefore, it is necessary for merchants to timely compare whether there are these problems in the houses they hold and solve them as soon as possible.

4.2　Suggestions

Most consumers who choose to stay in homestays hope to integrate into the local cultural environment, experience the real life of the local area, and at the same time require a good accommodation experience. Therefore, in order to improve the experience and satisfaction brought by homestay products to consumers, some suggestions for improvement are put forward for the negative content of homestay products mentioned in the online reviews of homestay consumers in this study.

Before planning and launching homestay operations, special attention should be paid to the traffic and surrounding environment of the site selection. Guarantee the quality level of hardware and software infrastructure in housing, and provide convenience

for consumers to travel. The interior space layout design is developed in a humanized direction, making full use of the layout advantages. In principle to ensure basic services, develop various service functions. Create a unique homestay atmosphere experience and create a personalized brand Inform the price change information in advance to reduce the psychological gap of consumers. Use pictures more for real publicity and improve service response efficiency [11].

To sum up, the evaluation of homestay consumers with negative emotional tendencies is basically based on whether their own experience and feelings are satisfied or not. Therefore, to improve the quality of homestays in the future, it is necessary to pay more attention to consumers' accommodation experience, and improve the conditions of homestays with reference to the content of reviews with negative emotions and the preference factors involved, so as to comprehensively improve consumers' consumption perception experience. This article is for the 2022 Challenge Cup Journal.

References

1. Fei Long, Jiaming Liu, Jingliang Chang(2019). Current situation and future prospect of domestic homestay research, J., Urban Journal. 40(01),31–37.
2. Huiling Wang, Mengying Wu(2015).Construction of family hotel evaluation model in China based on social network analysis, J., Journal of Management.12(03),433–438.
3. Hua Zhao, Chengzhi Zhang(2016). Use the author's theme model for thematic discovery and evolutionary research in libraries at UGC, J., Library Forum. 36(7),34–45.
4. Huibin Xing, Rui Zhang(2020). Research on the Development of China's Homestay Industry from the Perspective of Tourist Perception: Taking Lijiang City as an Example, J., Journal of Agricultural University of Hebei (Social Science Edition). 22(05),60–68.
5. Hui Gong(2020). Analysis of influencing factors of sales of Sanya Homestay online platform, J., Marketing Circle. 08,89-91.
6. Jiaqian Jiang, Yan Li(2014). A Review of Research on Tourism "Homestays" at Home and Abroad, J., Tourism Research.6(04),16–22.
7. Jing Chen(2016). B&Bs: The next outlet in the market? N., China Tourism News. A02,04-20.
8. Lina Wang(2020). Research on Tourism Development Countermeasures of Homestay in Laoshan District, Qingdao, D., Guilin University of Technology.
9. Pei Zhang, Mingqing La(2017). The willingness of tourists to choose country houses tends to be and their marketing implications, J., Journal of Southwest University for Nationalities (Humanities and Social Sciences Edition). 38(11),132–140.
10. Sumei Li, Jie Yang, Shenglin Liu(2019).Research on the influencing factors of tourist satisfaction based on SEM homestay, J., Journal of Dalian Nationalities University.21(04),339–344.
11. Xi Zhang, Yaqian Yang(2017). Research on Service Quality Evaluation of Domestic Homestay Industry, J., Journal of Huzhou Normal University.39(01),59–66.