

Research on the Impact of Online Reviews on Hotel Selection for Travelers

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Abstract: Online reviews play a significant role in the consumer's understanding of products or services in the online shopping market, holding great importance for both businesses and consumers. The body of literature on online reviews has been growing in recent years. This study reviews relevant literature on negative online reviews, designs a survey questionnaire, and collects data. The collected data is then subjected to reliability and validity tests, followed by a linear regression analysis to draw conclusions. The results of the study indicate that the word count, quality of review content, and sentiment of reviews significantly impact users' purchase intentions. Finally, based on the findings of this study, recommendations are provided to assist hotel operators and online booking platform managers in better understanding and utilizing online reviews.

1. Introduction

With the widespread use of mobile internet and smartphone applications, online hotel booking has become mainstream. Hotels have shifted from relying on advantageous locations to ensuring customer flow through online channels. Online reviews have become an increasingly popular intermediary channel for people to learn about products and services [1]. By browsing online reviews, consumers can reduce uncertainties associated with online shopping. Therefore, online reviews are one of the primary sources of information that influence consumers' purchasing decisions [2, 3].

Based on different sources of online reviews, this study examines their varying degrees of influence on consumers [4]. It is found that consumers have more trust in review information from third-party review websites, although this effect is not always consistent. Negative online reviews have a significant impact on purchase intentions, particularly for experiential products compared to other product categories. As a representative of experiential products, hotels possess features such as simultaneous production and consumption and experiential nature. These characteristics determine that consumers cannot accurately and comprehensively understand hotel information before consuming the product. As such, hotel operators and managers should pay attention to consumers' online reviews, especially negative ones. Hotel managers can improve the quality of hotel services (both hardware and software), enhance travelers' experiences, fundamentally alter travelers' perceptions, and consequently change their online reviews [5-7].

2. Empirical Analysis

2.1. Research Hypotheses

Based on the research findings of scholars Jin Wenxue, Jiang Zhouli, and Hu Anqi, this study proposes relevant research hypotheses from the perspective of online reviews. It hypothesizes that the quality, quantity, and sentiment of online hotel reviews have a significant impact on consumers' purchase decisions [8-10].

H1: Higher quality of online reviews has a greater impact on consumers' booking decisions.

H2: The quantity of online reviews directly affects consumers' purchasing decisions.

H3a: Positive online reviews have a significant impact on hotel bookings.

H3b: Negative online reviews have a significant impact on hotel bookings.

2.2. Research Model

Based on the hypotheses proposed earlier, the research model structure of this study is established. All three hypotheses have a certain influence on consumers' hotel booking decisions. This study primarily analyzes the data obtained from questionnaire surveys to validate the research hypotheses. Please refer to Figure 1 for details.

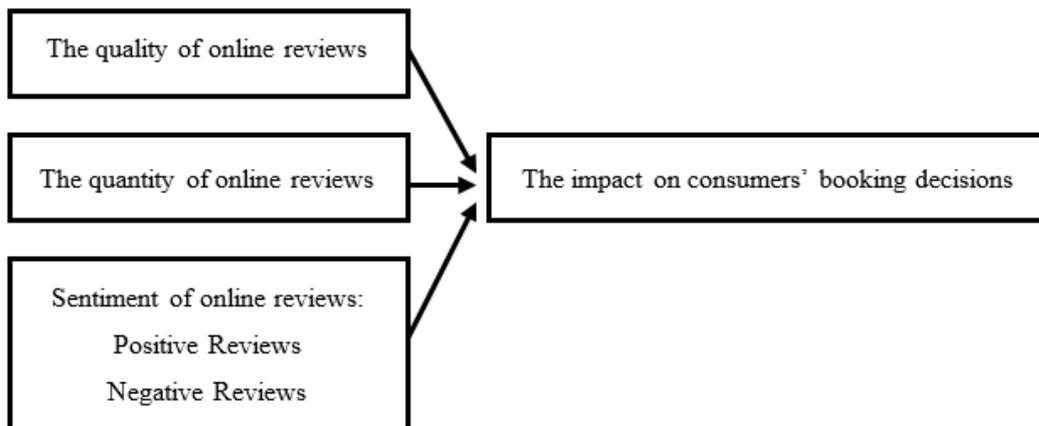


Figure 1: Hypothetical Model of the Impact of Online Reviews on Hotel Bookings

2.3. Questionnaire Survey and Statistical Analysis

2.3.1. Questionnaire Design

Based on the hypotheses proposed earlier, the questionnaire design is divided into two parts. The first part consists of a survey on consumers' basic information, while the second part focuses on the impact of online review comments on hotel bookings, comprising a total of 19 questions. The Likert Scale, a widely used international measurement scale, is employed in the second part of the questionnaire to describe the variables. The specific correspondence between variables and questions is shown in Table 1.

Table 1: Composition of the Scale

Measurement Variables	Indicator System	Reference Source
The quality of online reviews	A1 The reviews content is closely related to the product.	Chatterjee (2001) and Chalet (2007)
	A2 The reviews language is genuine and not exaggerated	
	A3 The reviews content is fair and reliable	
	A4 The reviews content is neutral (includes both positive and negative reviews)	
	A5 The reviews content can provide a wealth of useful information	
The quantity of online reviews	B1 The hotel is quite popular	Schubert and Selz (1999)
	B2 You pay more attention to hotels with a higher number of reviews	
	B3 Many people have commented on the hotel	
	B4 You pay more attention to comments that appear frequently	
sentiment of online reviews	C1 You pay more attention to positive reviews	Guo Guoqing et al.(2010)Cheung etal.(2010)
	C2 You pay more attention to hotels with a higher proportion of positive reviews	
	C3 Positive reviews have more reference value	
	C4 The quantity of negative reviews is important	
	C5 A large number of negative reviews will make you feel disgusted	
	C6 Negative reviews will terminate your booking intention	
The intention to book a hotel	D1 Online reviews are an important source of information for you	Bansel and Boyer (2000), Zheng Jialian (2011)
	D2 During the hotel booking process, you will refer to these reviews	
	D3 Reviews influence your decision to book a hotel	
	D4 You will give special consideration to hotels recommended in popular reviews	

2.3.2. Data Collection

(1) Survey Participants

The primary target participants of this study are consumers who make hotel bookings through the Ctrip platform. These consumers typically analyze relevant reviews and services on multimedia social platforms before making their final bookings. The survey also includes consumers who have not yet made a booking but show a tendency to make a purchase in the future. Students and employees from various organizations constitute a significant portion of the survey participants, with students being the primary focus. This is due to the large proportion of students and their higher educational levels, as well as their greater exposure and interaction with contemporary multimedia social platforms. However, the difference between students and working professionals, as proposed by Locke (1986), is not a decisive factor affecting the survey results.

(2) Data Collection

The survey was conducted using the online platform "Wenjuanxing." The questionnaires were distributed through social platforms such as WeChat Moments, QQ Zone, QQ Groups, and Weibo. A total of 500 questionnaires were distributed, out of which 475 were returned, resulting in a response rate of 95%. After excluding 10 irregularly answered questionnaires, a total of 465 valid questionnaires remained, yielding an effective response rate of 93%.

(3) Basic Profile of the Sample

The sample was analyzed based on five dimensions: gender, age, education level, occupation, and

duration of internet usage. Among the surveyed consumers, 58.03% were female and 41.94% were male, indicating a higher proportion of female participants. The age distribution was mainly concentrated in the range of 20-29 years old, accounting for 92.47% of the sample, which aligns with one of the key findings in China's internet survey reports. Regarding occupation, students constituted the majority, accounting for 78.47%, followed by employees of enterprises and institutions, accounting for 18.28%. The educational background of the participants was primarily at the college level or higher, with 88% having at least a bachelor's degree. Additionally, 93% of the surveyed individuals had been using the internet for three years or more, indicating sufficient exposure to multimedia social platforms and a relatively high level of familiarity with online review platforms. This is an important prerequisite for investigating the impact of online review comments on hotel bookings. The specific sample analysis is presented in Table 2.

Table 2: Sample Analysis of the Questionnaire Survey on the Impact of Online Review Comments on Hotel Booking

	Category	Frequency	Proportion
Gender	Male	39	41.94%
	Female	54	58.03%
Age	Below 20	5	5.38%
	20-29	86	92.47%
	30-39	2	2.15%
	40 and above	0	0%
Educational level	College	11	11.83%
	Bachelor	75	80.65%
	Master	6	6.45%
	Doctorate and above	1	1.08%
Occupation	Student	73	78.49%
	Office worker	17	18.28%
	Freelancer	3	3.23%
	Other	0	0%
Duration of Internet usage	Less than 1 year	2	2.15%
	1-3 years	4	4.3%
	3-6 years	49	52.69%
	More than 6 years	38	40.86%
Total sample size		93	100%

(4) Descriptive Analysis of Items

Descriptive analysis was conducted on the sample to examine the basic characteristics of the questionnaire items. By calculating the minimum value, maximum value, mean, and standard deviation, we can gain insights into the sample's profile. As shown in Table 2. 3, the minimum and maximum values for each measurement item range from 1 to 5. The means are relatively moderate, and the standard deviations are all less than 1. This indicates a general consensus among respondents regarding their perceptions of the measurement items and suggests good stability of the survey sample data.

Table 3: Descriptive Statistics of Items

Items	N	Minimum value	Maximum value	mean	standard deviation
1	500	1	5	2.03	.582
2	500	1	5	1.97	.618
3	500	1	5	1.92	.621
4	500	1	5	1.96	.614
5	500	1	5	2.02	.649
6	500	1	5	1.77	.706
7	500	1	5	1.83	.684
8	500	1	5	1.75	.706
9	500	1	5	1.82	.702
10	500	1	5	3.91	.636
11	500	1	5	3.84	.643
12	500	1	5	3.89	.664
13	500	1	5	3.91	.693
14	500	1	5	3.89	.624
15	500	1	5	3.86	.707
16	500	1	5	1.77	.706
17	500	1	5	1.83	.684
18	500	1	5	1.75	.706
19	500	1	5	1.82	.702

2.4. Data Analysis

2.4.1. Reliability Analysis

Reliability analysis was conducted on the valid survey responses, totaling 465 completed questionnaires, to assess the reliability of the survey. The reliability results of the questionnaire are presented in Table 4.

Table 4: Questionnaire Reliability Evaluation Results for the Impact of Online Reviews on Hotel Booking

Measurement Items	Number of Items	Ceombach's α Alpha
Quality of Reviews	5	0.904
Quantity of Reviews	4	0.889
Positive Reviews	3	0.823
Negative Reviews	3	0.837

Reliability testing was conducted on the questionnaire using Cronbach's alpha coefficient (α reliability coefficient). Based on the results, the overall α coefficient of this study's questionnaire was approximately 0.8 or higher, indicating good reliability.

2.4.2. Correlation Analysis

Correlation analysis was performed to identify significant and non-significant influences among individual or multiple variables. Positive correlations indicate a positive influence, while negative correlations indicate a negative influence. The specific results are presented in Table 5.

Table 5: Correlation Analysis of the Influence of Online Reviews on Hotel Booking

	Quality of Reviews	Quantity of Reviews	Positive Reviews	Negative Reviews	consumer purchase decisions
Quality of Reviews	1	-	-	-	-
Quantity of Reviews	.421**	1	-	-	-
Positive Reviews	.391**	.318**	1	-	-
Negative Reviews	.079	.229*	.268**	1	-
consumer purchase decisions	.344**	.431**	.313**	.526**	1

From the two-tailed tests conducted on various variables in the above table, it can be observed that there is a significant correlation between the variables of “comment content quality”, “quantity of comments”, “positive comments”, “negative comments” and “consumer purchase decisions”.

2.4.3. Analysis of Variance

Analysis of variance was conducted to examine the impact of individual demographics on hotel booking outcomes. The specific analysis is presented in Table 6:

Table 6: Questionnaire Analysis of the Variance in the Influence of Online Reviews on Hotel Booking

	The impact of demographic factors on hotel booking		
	F	Sig	R2
Gender	3.036	0.85	0.32
Age	0.123	0.884	0.003
Educational level	1.059	0.371	0.034
Occupation	2.090	0.130	0.44
Duration of internet usage	0.094	0.963	0.003

2.4.4. Regression Analysis

Table 7: Analysis of the impact of Reviews quality on consumer decision-making

	Hotel consumer booking decisions				
	B	Std.E	β	t	Sig
Constant term	3.750	0.529	-	7.368	0.000
Quality of Reviews	0.320	0.100	0.298	3.491	0.000
Coefficient of determination	R	R2	AdjustedR2	F	Sig
	0.344	0.118	0.108	12.185	0.000

Table 8: Analysis of the impact of comment quantity on consumer decision-making

	Hotel consumer booking decisions				
	B	Std.E	β	t	Sig
Constant term	3.152	0.571	-	5.520	0.000
Quantity of Reviews	0.484	0.106	0.431	4.551	0.000
Coefficient of determination	R	R2	AdjustedR2	F	Sig
	0.431	0.185	0.176	20.712	0.000

Regression analysis is used to determine the statistical relationship between variables. In this study, a univariate regression approach was employed to validate the results. Regression coefficients were used to establish the relationships between hypotheses H1, H2, H3a, H3b, and consumer hotel booking behavior, thus demonstrating the hypotheses and research model of this study. The analysis results for hypotheses H1, H2, H3a, H3b with consumers are presented in Table 7, 8, 9, and 10, respectively.

Table 9: Analysis of the impact of positive Reviews on consumer decision-making

	Hotel consumer booking decisions				
	B	Std.E	β	t	Sig
Constant term	4.354	0.444	-	9.816	0.000
Positive Reviews	0.279	0.089	0.313	3.146	0.002
Coefficient of determination	R	R2	AdjustedR2	F	Sig
	0.313	0.098	0.088	9.900	0.002

Table 10: Analysis of the impact of negative Reviews on consumer decision-making

	Hotel consumer booking decisions				
	B	Std.E	β	t	Sig
Constant term	3.199	0.436	-	7.342	0.000
Negative Reviews	0.437	0.074	0.526	5.895	0.000
Coefficient of determination	R	R2	AdjustedR2	F	Sig
	0.526	0.276	0.268	34.749	0.000

Based on Tables 7, 8, 9, and 10, it can be observed that the significance levels for hypotheses H1, H2, H3a, and H3b are: 0, 0, 0.002, and 0, respectively. Through the regression analysis and summary above, it can be concluded that hypotheses H1, H2, H3a, and H3b, as proposed in the previous section, hold true when considering no other factors. The univariate regression equations are as follows:

$$H1: Y=0.32X+3.75$$

$$H2: Y=0.484X+3.152$$

$$H3a: Y=0.279X+4.354$$

$$H3b: Y=0.437X+3.199$$

2.4.5. Research Conclusions

This study primarily focused on the age group of 20-30 years and conducted an in-depth analysis of the impact of online reviews on hotel bookings. The aim was to identify effective strategies for online marketing in the hotel industry. By referring to a substantial amount of relevant literature and reviews, the collected survey reports were thoroughly analyzed, leading to the following four conclusions:

(1) Higher quality reviews have a greater impact on consumer hotel bookings.

The analysis in this study indicates that authentic and informative post-stay reviews significantly attract consumers' attention and provide a basis for decision-making when choosing a hotel. Reviews with specific and meaningful information have a more pronounced influence on consumer decisions.

(2) Greater quantity of reviews has a stronger impact on consumer hotel bookings.

The impact of a larger number of reviews on consumer hotel bookings is significant. In most cases, consumers are influenced by both positive and negative reviews, making it difficult for them to make decisions. A substantial number of reviews guide consumers in their decision-making process. Most consumers still trust that reviews are posted by other consumers who have actually experienced the hotel, and they consider these reviews as a reference for their own purchasing behavior. Although not all reviews are positive, consumers gain more knowledge about the hotel through relevant reviews, which provides them with more information to make their choices and ultimately guides them towards the corresponding booking decision.

(3) Positive reviews have a significant impact on consumer hotel booking decisions.

Consistent with the findings of the majority of researchers, positive online reviews contribute to establishing a positive brand image for hotels. Positive user reputation leads to word-of-mouth promotion and positively influences consumer decision-making. More positive reviews also attract

more new customers to book the hotel, resulting in a long-term and stable increase in hotel bookings.

(4) Negative reviews have a significant impact on consumer hotel booking decisions.

Negative online reviews have a substantial impact on consumer hotel booking decisions. Due to the inherent risks in the hotel booking process, consumers extensively browse online reviews before making their bookings. Excessive negative information about a hotel has a serious influence on consumer decisions. An excessive number of negative reviews also leads to a decline in overall consumer ratings of the hotel, ultimately causing a severe negative impact on hotel bookings.

3. Strategies for Hotels to Manage the Impact of Online Reviews on Bookings

As online review platforms serve as one of the primary channels for consumers to gather information about hotel facilities and services, it is essential for hotels to understand the influence of these reviews on bookings. Maintaining positive online reviews can contribute to an increase in hotel bookings, as these reviews also serve as a form of promotion for the hotel with relatively low costs. The following strategies are recommended:

3.1. Emphasize the Quality Assessment of Online Reviews

Assessing the authenticity and quality of online reviews is crucial, as it influences consumer decision-making. Increasing the number of views on review platforms alone is insufficient for hotels to convert potential customers into actual guests. Therefore, hotels must prioritize the quality of online reviews. For example, popular travel websites like Ctrip and Qunar allow consumers to view reviews from other guests who have already stayed at the hotel. These reviews, posted by genuine users, hold significant reference value for potential customers. However, many websites allow users to post reviews without verifying their actual experiences, leading to misleading information for consumers. If a dissatisfied customer publishes negative experiences online, it can severely impact the hotel's future development. Although efforts have been made to regulate the authenticity of online reviews on most travel websites in China, the results have been unsatisfactory. To address this issue, some websites have introduced "dislike" and "like" buttons for user reviews, enabling consumers to provide feedback and additional comments to prevent manipulated or biased reviews.

3.2. Encourage Consumers to Share their Experiences and Reviews

The analysis conducted in this study highlights the impact of the quantity of reviews on hotel bookings. Hotel departments can implement activities and measures to encourage consumers to post reviews after their stay. Increasing the number of reviews enhances the hotel's visibility and ranking. Categorizing consumer reviews allows hotels to focus on negative reviews as a form of user feedback, enabling them to actively improve service quality and enhance facilities. On the other hand, positive reviews can be seen as free online promotion, providing significant benefits for the hotel's online presence and attracting more consumer interest.

3.3. Establish a Robust Monitoring and Handling Mechanism for Online Reviews

Negative reviews have a greater impact on hotels compared to positive reviews. As service quality is crucial for hotels, it is essential for hotel management to pay close attention to online reviews and gain a comprehensive understanding of the overall evaluation and related issues from the market. Handling negative reviews should be done cautiously. For reviews where contact with the consumer is not possible, hotel administrators can reply to the review, addressing the concerns raised. Providing appropriate discounts or incentives to customers who leave negative reviews can be an effective

strategy to demonstrate the hotel's willingness to address concerns. Viewing negative reviews as constructive feedback and expressing gratitude can help mitigate the negative impact. While it may not be possible to respond to every consumer review, the hotel can showcase improvement measures on its official website to regain the trust of consumers and restore the hotel's reputation.

3.4. Strengthen Supervision of Malicious Online Reviews

Due to the virtual and anonymous nature of the internet, there is a prevalence of disordered, malicious, and false reviews on online platforms. Hotels should guide online review platforms in a fair and just competition mechanism, without resorting to malicious tactics to attack competitors. For individual reviewers, repeatedly posting negative social comments erodes trust from other consumers and renders their future reviews irrelevant. Strengthening internet supervision and enhancing the review moderation mechanism can effectively remove intentionally defamatory, malicious, and false reviews. Accounts repeatedly posting such content can be banned. It is important to establish a comprehensive legal framework for relevant websites to strike a balance between protecting consumers' freedom of expression and combating harmful social comments.

4. Conclusion

This study focused on the impact of online reviews on consumer decision-making regarding hotel bookings, as well as the analysis of the quality, quantity, and positive/negative sentiment of online reviews on consumer decision-making. By analyzing the collected data and examining their correlation and reliability, the following conclusions were drawn:

Online reviews, along with their four dimensions of quantity, quality, positive sentiment, and negative sentiment, significantly influence consumer decision-making when booking hotels. The quality of reviews, indicated by authenticity, detail, and reliability of the content, provides valuable information closely related to the product, thereby exerting a significant impact on consumer decision-making. Positive sentiment reviews contribute to faster hotel bookings, while negative sentiment reviews can greatly reduce the risk perceived by consumers, directly influencing their decision-making.

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