# How Do Online Reviews Impact Purchasing Decisions? --Mediation of Perceived Usefulness

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**Abstract:** Online reviews play an increasingly significant role in online purchase. Online reviews of hotels affect purchase intention due to intangibility of service provided by hotels. This thesis formulated a model among online reviews which is the research object, perceived usefulness and purchase intention of consumers in terms of Technology Acceptance Model. Positivism analyze was used to examine accuracy of the model and hypothesis. Research shows that the quality and quantity of online reviews have positive impacts on Perceived Usefulness; perceived usefulness has a mediating effect between online reviews of hotels and purchase intention of consumer.

#### 1. Introduction

The 42nd Statistical Report of CNNIC shows, as of June 2018, the scale of online shopping users in China has reached 569 million, accounting for 71.1% of the total netizens. One theme that emerged from this work is that "Online shopping has become new normal". Accenture's 2018 China Consumer Insights Report states that 87% of consumers are readily accessible to share shopping experiences or leave comments for others. 55% of consumers would like to share their purchase in social applications. 42% of consumers said that reading reviews would increase impulse purchase intentions. In the early stage of generating purchase intentions, it has become a habit of online shopping consumers to learn about products by viewing online reviews to reduce the virtuality and risks from the Internet. However, massive online reviews are overwhelmed of false and invalid reviews, and how to identify effective online reviews has become the key to determining consumers' willingness to buy.

Study found the number and length of reviews affect customers' perception of useful information. Long reviews include more product descriptions and consumers can get more useful information. As far as review content is concerned, the objectivity of reviews and consistency with product information will enhance the perceived usefulness of consumers[11]. When consumers start to doubt the validity of online reviews, they will consciously reserve their opinions[7]. Wang Jun measured the word-of-mouth dynamics and found that word-of-mouth usefulness significantly affected information adoption. It can be seen that consumers will consciously screen and perceive useful information, and consumers' perception of false information will affect purchase intentions.

In terms of mediation, the characteristics of online reviews further influence the adoption of electronic word-of-mouth through the mediation of perception of usefulness and credibility. Similarly, based on the mediating role of perceived usefulness, Wang Jun studied the impact of different types of reviews on consumer information adoption. Tao Xiaobo has empirically found that the number and value of online reviews affect the diffusion of new products through the mediating effect of perceived usefulness[10]. Purchase intention plays a significant role in the circulation from the adoption of review information, to generation of purchase intention, and then the promotion of product diffusion of researching consumer purchase behavior. At present, few studies focus on the mechanism of perceived usefulness as a mediating effect on purchase intention, which is the research content of this article.

After consumers initially generate purchase intentions, they can obtain effective information by checking online product reviews to determine purchase intentions. The proliferation of fake online reviews has also led to a series of thoughts: What role does perceived usefulness play in consumer

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screening? Do online reviews influence purchase intentions through perceived usefulness? Based on these issues, this article introduces perceived usefulness, builds theoretical models of online reviews, perceived usefulness, and consumer purchase intention based on technology acceptance theory, and explores its impact mechanism through empirical investigations in order to provide decision-making reference for improving the level of online marketing management of enterprises and businesses.

## 2. Theoretical Background

## 2.1 Quantity and Quality of Online Reviews

In the related research of online reviews, the quantity and quality indicators of online reviews are widely used as the rigid constraint dimension of the research on the mechanism of online reviews because of their objectivity and stability. The review information were coded into quality, quantity, potency and timeliness [3,4]. In terms of outcome variables for the number of online reviews, studies have focused on product sales [6], consumer attitudes and behaviors [2], and purchase decisions [1,9]. In terms of the quality of online reviews, academics introduced cognitive variables, professional competence, corporate responses [11], product types and other intermediate variables to explore its role in promoting purchase intention and product sales.

#### 2.2 Perceived Usefulness

Perceived usefulness measures the extent to which consumers perceive value when making purchasing decisions. Existing literature mainly focuses on the antecedent variables of perceived usefulness on CNKI: semantic features, expressions[11], and publishing time, the seller responded to commenting on the valence, graphic matching, and new product type [8,9]. Based on text mining technology, retailer perspective and consumer perspective relatively.

#### 2.3 Research Review

The willingness to buy originates before the purchase decision, and is the key to the functioning of online hotel reviews. In terms of the quality of online reviews, existing studies have introduced multiple intermediate variables to explore the impact on purchase intention. However, in the network environment where false information is flooded, consumers will consciously screen and perceive useful information. In summary, this paper introduces the usefulness of intermediate variables to perceive the effects of the number and quality of online reviews on purchase intention.

## 3. Research Hypotheses

#### 3.1 Impact of Online Reviews on Perceived Usefulness

The number of online reviews reflects the popularity of the product. Research found that the longer the hotel has been opened, the more accumulated reviews it has, and thus promote customers' perception of useful information[6]. Online reviews with false reviews have significantly reduced perceived usefulness [7]. Consumers have a sense of herd mentality and risk aversion, and the number of online reviews indicates social acceptance to a certain extent, thereby reducing the uncertainty and perceived risk before consumer purchase decisions. Chen Jia also believes that consumers will not read one by one when facing a large number of online reviews, but will make quick decisions based on the "usefulness" of reviews [2]. In addition, the quality of online reviews affects consumers' access to effective information. High-quality product evaluation can effectively enhance consumer confidence. High-quality online reviews increase the response probability of companies, and add more relevant information to make them more valuable, thereby improving the usefulness of reviews. Thus:

H1a: The quantity of online reviews positively affects perceived usefulness.

H1b: The quality of online reviews positively impacts perceived usefulness.

## 3.2 Impact of Perceived Usefulness on Purchase Intention

Perceived usefulness has a direct impact on consumer purchase intentions. The perceived usefulness of negative reviews has a greater effect on purchase intentions than positive and neutral reviews. Studies have found that perceived usefulness significantly improves consumer information adoption and product diffusion. Thus:

H2: Perceived usefulness positively influences purchase intention.

To sum up, this study draws a model diagram of the effect of online reviews on purchase intention on hotels, as shown in Figure 1.

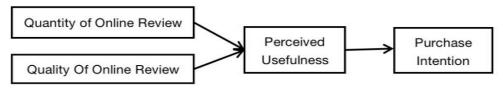


Fig.1 Theoretical model for online reviews, perceived usefulness, and purchase intention

# 4. Study Design

The variables measured in this study include four variables: the number of online reviews, the quality of online reviews, perceived usefulness, and consumer willingness to buy. Among them, there are 8 measurement questions in the two dimensions of the online review. The measurement questions are summarized from the previous researches. Through the measurement of the research variables, based on the data analysis of the mechanism of online review attributes, perceived usefulness, and consumer purchase intention in this paper. A preliminary questionnaire design is obtained, and the reliability and validity of the questionnaire are tested in the early stage to obtain a revised final questionnaire.

#### 5. Research Methods

Statistical analysis was performed using SPSS25.0, which is mainly responsible for the entry and analysis of questionnaire data, reliability and validity tests to determine the reliability and consistency of online reviews, perceived usefulness, and purchase intention, and descriptive statistical analysis of demographic characteristics. Structural equation model is mainly responsible for optimization of structural equation model and testing hypothesis.

The data of this study was collected from December 2019 to January 2020. Given that the research object is online reviews, choosing to issue questionnaires online is more in line with the habits of online shopping people. A total of 294 questionnaires were collected and 233 valid questionnaires were obtained, with an effective rate of 79.25%.

#### 6. Empirical Analysis and Module

Using SPSS25.0 to analyze 233 valid questionnaires, delete the three items that have serious deviations in the correspondence between the analysis items and factors, and analyze from the reliability and validity, and the model fit.

The reliability analysis of the variables is shown in Table 1. The reliability coefficient value is 0.862, which is greater than 0.8, which indicates that the reliability of the research data is high. For validity analysis, the commonness values of all the research items are higher than 0.4, indicating that the research item information can be effectively extracted. In addition, the KMO value is 0.812, which is greater than 0.6, meaning that the data has validity. Combining factor loading factors, confirming that the corresponding relationship between factors and research items is consistent with expectations, indicating that it has validity. Besides, The model fitting index indicates that the research model has good fit as showed in table 2.

Table 1 Reliability Analysis

Factor	Std.	Cronbach α	CR	AVE
A1	0.855	0.862	0.6	0.75
A2	0.854			
A3	0.859			
A4	0.858			
B1	0.863		0.48	0.731
B2	0.859			
B3	0.85			
C1	0.85		0.587	0.739
C2	0.848			
C3	0.855			
D1	0.856		0.549	0.785
D2	0.851			
D3	0.856			

**Table 2 Model Estimation Results** 

parameter	condition	result
$\chi^2/df$	≤3	2.601
GFI	≥0.9	0.91
RMSEA	≤0.10	0.083
RMR	≤0.05	0.033
CFI	≥0.9	0.909
IFI	≥0.9	0.91

#### 7. Research Conclusions

From the perspective of hotel online reviews, this study uses online reviews as independent variables and consumer purchase intent as the dependent variable. It explored the influence mechanism of online reviews on purchase intent and the relationship of perceived usefulness between hotel online reviews and purchase intent, drawing the following conclusions:

First, Online reviews are helpful for improving perceived usefulness. Studies have shown that both the number of online reviews and the quality of online reviews have a significant effect on perceived usefulness. The number of hotel online reviews reflects the popularity of the hotel. The richness of the number of reviews is conducive to providing multi-faceted hotel information, making consumers think that the information is useful; the quality of hotel online reviews indicates that the reviews are true, objective, detailed and convenient Understandably, the quality of reviews is the basis on which consumers find reviews useful.

Second, Perceived usefulness has a positive effect on purchase intention. The research results show that consumers think that online hotel reviews are useful, and they will form a positive willingness to buy; moreover, a positive willingness to buy will help increase the possibility of consumers booking a hotel and recommending the hotel to friends. For hotels, it is important not only to focus on the number and quality of hotel online reviews, but also on the perceived usefulness variable.

## 8. Research Implications

The willingness to buy is the premise for consumers to generate actual buying behaviors, and it is also an important part of hotel marketing to promote consumers to buy. First, attach great importance to the influence of online reviews. Hotels should raise the influence of online reviews to the strategic level of the company, take the advantages of fast, wide-ranging, and influential online reviews in marketing, therefore reducing corporate costs. A good WOM environment should be built to help consumers obtain comprehensive hotel information from the perspective of consumers by viewing online reviews; at the same time, in an Internet environment full of fake

online review information, the number of online reviews should be controlled to a reasonable range.

Second, attach importance to consumers' perception of the usefulness of reviews. The number of online reviews and the quality of online reviews do not significantly affect purchase intention. The practice of "better reviews" to impulse purchase intention should be abandoned, instead to write high-quality reviews.

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