THE IMPACT OF THE EMOTIONAL PROPENSITY OF ONLINE REVIEWS ON CONSUMERS' PURCHASING INTENTIONS

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Abstract: Through the study of online reviews and their information, online merchants can take appropriate measures to guide the tendency of reviews, thus positively affecting consumers' purchase behavior. College students account for a large proportion of online shopping consumers. This study chose college students as participants, which is helpful to grasp the psychological characteristics of college students' shopping, so as to better serve such consumer groups. In this study, a questionnaire survey was conducted to investigate the relationship between emotional orientation of online reviews and consumers' purchase intention, and the mediating role of perceived value and perceived usefulness in this relationship. The main contents of the research were as follows: Questionnaire was compiled to study the influence of emotional tendencies of online reviews on consumers' purchase intention by creating online shopping situations through questionnaire guidance, then the intermediary role of consumers' perceived value of goods and perceived usefulness of reviews in online reviews is analyzed. The conclusions were as follows: (1) The positive emotional tendencies of online reviews significantly positively predict their purchase intention; the negative emotional inclination of online reviews has no significant predictive effect on their purchase intention. (2) Consumers' perceived value significantly positively predicts their purchase intention. (3) For positive online reviews, consumers' perceived usefulness of online reviews significantly positively predicts purchase intention; for negative online reviews, consumers' perceived usefulness of online reviews significantly negatively predicts purchase intention. (4) For positive online reviews, consumers' perceived value plays a mediating role between emotional inclination and purchase intention; for negative online reviews, consumers' perceived value has no significant mediating effect in the relationship between emotional tendency and purchase intention. (5) Consumers' perceived usefulness of online reviews plays a mediating role in the relationship between emotional inclination and purchase intention.

Keywords: Online Comment, Emotional Tendencies, Perceived Value, Perceived Usefulness, Purchase Decision

Introduction

With the continuous development of online information technology and the continuous expansion of the e-commerce industry, online shopping has occupied a very important position in people's daily consumption patterns. According to CNNIC's 42nd Statistical Report on the Development of China's Internet, as of June 2018, the proportion of online shopping users in our country was 71.0%, and online shopping has long been an application used by netizens with a high proportion. Unlike physical shopping, it is difficult for consumers to directly understand the various characteristics of goods through their senses in online shopping, and other people's online comments have become an important reference for consumers to understand the image of goods. In online shopping, consumers will not just passively accept product image information, but also become disseminators of product information by posting online comments. Online reviews often influence people's impression of the product, which in turn affects their purchasing intentions.

From the perspective of information characteristics, the information contained in online reviews not only has cognitive characteristics (rational characteristics), but also emotional characteristics (emotional characteristics) (Yap, Soetaro, & Sweeney, 2013). Cognitive characteristics mainly refer to information about the attributes of goods or services, and emotional characteristics mainly refer to the emotional intensity, emotional polarity, language style, vividness and other emotional information expressed in the content of online reviews. The emotional characteristics of online reviews reflect the reviewers' emotional tendencies towards purchased goods or services. Research on the impact of online reviews on consumers' purchasing behavior has only begun to rise in recent years. In 2011, Chatterjee first proposed the concept of "online reviews". On this basis, scholars began to conduct research on online reviews. In the past, research on online reviews often started from multiple aspects, which can be divided into the following angles: the characteristics of the online review itself, such as the depth of the review, the star rating of the review, the form of the review (text or picture), the timeliness of the review, etc.; the characteristics of the reviewer, such as the reviewer's reputation level, network centrality, etc. In comparison, there are relatively few studies on the relationship between the emotional inclination of online review content and consumer purchase intention and purchase behavior. At present, most of the studies on the emotional inclination of online reviews use word segmentation technology to analyze the emotional inclination. The content of the review is analyzed and mined, and the emotional inclination of the review content is determined based on the emotionally related words appearing in the sentence.

Qian & Yang (2015) investigated the influence of positive content in online reviews on users' purchasing behavior from the perspective of emotional tendencies. The results show that the number of positive comments in online reviews and the content with positive emotional tendencies significantly positively affect users' purchasing behavior. At present, most of the previous studies on the emotional

tendencies of online reviews have stayed in the field of economics, and few have explored the psychological mechanisms behind their impact on consumer decision-making.

Unlike brick-and-mortar store shopping, online shoppers find it more difficult to directly understand the image and characteristics of goods through their senses. Through online reviews, consumers can indirectly obtain information about the quality and performance of goods, thus forming an impression, which in turn affects their willingness to buy goods. The emotional tendency of online reviews is also the focus of consumers' attention, which often allows consumers to perceive more accurate experience information about products or services. Studying the emotional tendency of online reviews will help merchants better meet consumer needs, and guide the reviewers' review tendency to positively affect consumers' purchase behavior. At the same time, it will also help consumers obtain valuable reference information from reviews with different emotional tendencies and make purchase decisions more rationally.

Research Objective(s)

1. To explore the impact of positive and negative affective tendencies in online reviews on consumers' purchase intentions.

2. To examine how consumers' perceived value of positive and negative reviews predicts their purchase intention respectively.

3. To analyze the impact of consumers' perceived usefulness of online reviews on their purchase intention.

4. To verify the mediating role of perceived value between affective tendencies of online reviews and consumers' purchase intention.

5. To explore the mediating role of perceived usefulness between affective disposition and consumers' purchase intention.

Literature Review

Online comments on emotional orientation

The concept of consumption emotion was first proposed by Erevelles in 1998, and different scholars have different views on this concept. Dube and Menon (2000) argue that consumption emotion is an emotional state generated when using or consuming goods. The generation of consumption emotion is a dynamic process. In the process of consuming goods (or services), consumers may experience positive emotions such as satisfaction, pleasure, excitement, or negative emotions such as disappointment, regret, sadness, anger. There is currently controversy about the relationship between positive and negative consumption emotion. Baker, levy and Greval (1992) argue that emotions have two levels, and it is impossible for consumers to experience both positive and negative emotions at the

same time. But there are also studies that consumers' positive and negative emotions can be experienced at the same time. Phillips and Baumgartner (2002) argued that consumers experience several different emotions at the same time during the consumption process, such as fear and excitement. Since consumer emotion is the emotional response of consumers based on perceiving the characteristics of the purchased goods (or services), and the emotional tendency of online reviews often conveys the reviewer's positive or negative emotional experience of the product, the processing of emotional-related information in online reviews by potential consumers will affect the cognition of the product image.

Salinas (2005) and Fonner (2012) investigated the influence of different communication methods on social presence from different angles. The related research on social presence in the field of online education mainly focuses on students' participation, satisfaction and student performance. Gunawardena et al. (1997) defined social presence as students' perceptual experience when online learning; Tu (2000) pointed out that the social presence of virtual learning communities includes social situations, online communication and interactivity, so as to explore the relationship between social presence and online interaction; Kovanovic and Joksimovic et al. (2017), Molinillo (2018) pointed out that social presence can positively affect students' learning motivation and satisfaction, thereby improving learning performance.

The current research on online reviews of e-commerce based on sentiment analysis has achieved certain results. Wu & Gao et al. (2017) studied the impact of review text on hotel satisfaction, combined with sentiment analysis technology to extract the corresponding emotions of each type of feature, and constructed a model to analyze the relationship between hotel feature evaluation and user satisfaction. Zhao & Li (2018) used sentiment analysis technology to cluster the attributes of users' online reviews on Haitao APP to determine the evaluation dimension of user satisfaction, and then applied sentiment analysis model to obtain user satisfaction scores on each dimension. The results show that goods are the most important factor affecting user satisfaction of Haitao APP.

Perceived Value

Consumers' satisfaction with a particular good or service often depends on the value they can feel. Consumers' perceived value often plays an important role in driving consumers' purchasing behavior. In 1988, Zeithaml first defined perceived value, arguing that consumers' perceived value is the evaluation of the overall utility of a product or service by weighing the perceived benefits with their own costs during the purchase process. Zeithaml's definition of perceived value has been recognized by later scholars, and on this basis, scholars at home and abroad have also put forward their own definitions. Woodruff (1997) believed that perceived value is the comprehensive evaluation and preference of consumers for each performance of a product; Li and Lee (2016) believed that perceived value is the evaluation obtained by comparing actual consumption with the quality of consumption experienced; Bai (2001) defined perceived value as the overall feeling when consumers compare actual

income with their efforts after purchasing a product or service. From the definition of the concept of perceived value by scholars, it can be seen that consumers' perceived value is closely related to consumers' subjective feelings.

Perceived Usefulness

The concept of "perceived usefulness" was first applied in the field of information management system research. Davis et al. (1989) applied it to the technology acceptance model and proposed the famous technology acceptance model. In this technology acceptance model, perceived usefulness refers to the degree to which the information perceived by system users is useful to themselves. After Davis et al.'s research, Sussmen and Siegal (2003) proposed the information adoption model. This model holds that the quality of information and the credibility of its source will affect people's perceived usefulness of information, which in turn affects information adoption and behavioral choices.

At this stage, the concept of perceived usefulness has gradually extended from the field of information systems to the field of marketing. As the concept of "perceived usefulness" becomes more and more involved in the marketing field, its meaning has also begun to change. Currently, the concept of "perceived usefulness" is more used in the category of online reviews, that is, the perceived usefulness of browsers to online reviews.

Aitken, Gray, and Lawson (2008) drew on the definition of advertising effectiveness to define perceived usefulness as the extent to which readers of online product reviews can perceive the message the review sender wants to convey, and the extent to which this information can affect the review reader's attitude towards the product or service, emotional state, and willingness to support it. Among scholars in our country, Peng (2011) and others defined the usefulness of online reviews as a subjective perception of whether online reviews can help consumers themselves obtain relevant information and assist in making purchasing decisions. Hao Yuanyuan (2011) believed that the usefulness of online reviews refers to the degree to which consumers perceive the usefulness of online reviews for product evaluation and decision-making opinions. In short, whether online product reviews have value is determined by the recipient of the review.
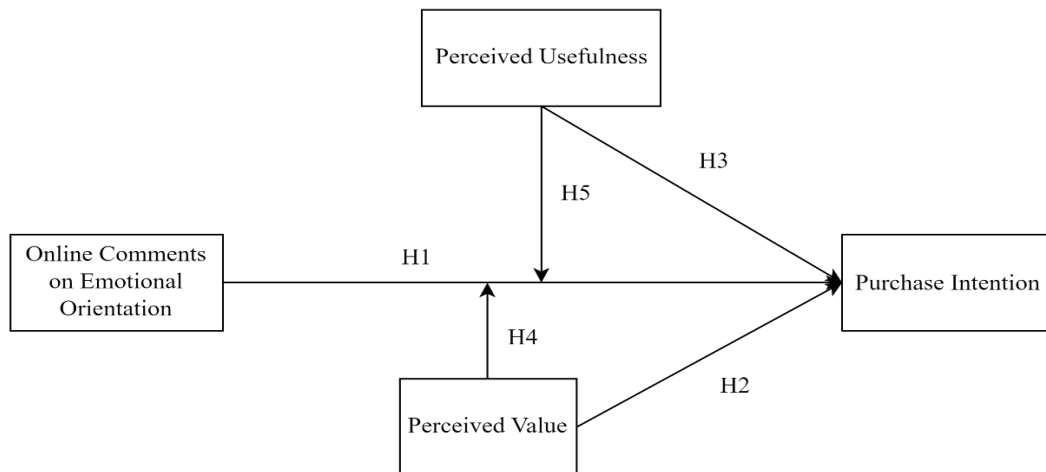
Purchase Intention

Regarding purchase intention, different scholars have different definitions in their studies. The concept of purchase intention (Purchase Intention) is derived from the concept of intention in psychology. According to Fishbein's definition, purchase intention refers to the subjective probability of customers' purchase expectations for a certain product, that is, the size of their psychological expectations for purchasing a certain product or service. Various subjective and objective factors such as customer attitudes and external environmental factors will affect this probability.

Hunter, Danes and Cohen (1987) believedthat purchase intention represents behavior, which reflects the likelihood that consumers will purchase for a certain goal (goods or services) within a certain

period of time. Dodds, Mollroe and Grewal (1991) define purchase intention as the degree to which consumers try to buy a product. Chinese scholars Han & Tian (2005) believe that purchase intention reflects the likelihood that consumers will buy a certain product. Overall, researchers at home and abroad generally agree that purchase intention is the process of consumers' own psychological evaluation, which represents the possibility of purchasing behavior.

Conceptual Framework

Picture 1: Conceptual Framework

Hypotheses

H1: The positive emotional tendency of online reviews significantly positively predicted the purchase intention, and the negative emotional tendency significantly negatively affected the purchase intention.

H2: For positive online reviews, consumers' perceived value significantly positively predicted purchase intentions, and for negative online reviews, consumers' perceived value significantly negatively predicted purchase intentions.

H3: Consumers' perceived usefulness of online reviews significantly negatively predicts purchase intentions.

H4: Consumers' perceived value of goods plays a mediating role between emotional orientation and purchase intention.

H5: Consumers' perceived usefulness of online reviews mediates between emotional proclivities and purchase intentions.

Methodology

This study uses quantitative research, through the distribution of questionnaires, a total of 367 college students from all over the country were selected. After deleting the invalid questionnaires, 310

valid subjects were finally obtained. Statistical analysis of the data was performed using SPSS.

Table 1: Results of Reliability Analysis for Each Variable

Variable	Number of questions	Cronbach 's α
Online Comments on Emotional Orientation	3	0.76
Perceived Usefulness	3	0.77
perceived value	6	0.83
Purchase Intention	4	0.77

Results

According to the hypothesis, taking the emotional propensity of online reviews as the independent variable, the perceived usefulness, the quality value of the perceived value and the emotional value dimension as the intermediary variables, and the purchase intention as the dependent variable, the two dimensions of perceived usefulness and perceived value were tested. The mediating effect between the emotional propensity of positive online reviews and the purchase intention.

First, we examined the mediating effect of perceived usefulness between the emotional propensity of online reviews (positive) and purchase intention. The results showed that the emotional propensity of positive online reviews had a significant positive predictive effect on purchase intention ($\beta = 0.51$, $t = 6.35$, $p < 0.001$). When the mediating variable of perceived usefulness was added, it still had a significant positive predictive effect on purchase intention ($\beta = 0.33$, $t = 4.22$, $p < 0.001$). The emotional propensity of positive online reviews significantly positively predicted perceived usefulness ($\beta = 0.48$, $t = 5.90$, $p < 0.001$), and the perceived usefulness also had a significant predictive effect on purchase intention ($\beta = 0.37$, $t = 7.09$, $p < 0.001$). In addition, the upper and lower limits of the bootstrap 95% confidence interval of perceived usefulness in the mediating effect between positive online review emotional propensity and purchase intention are [0.10, 0.26], excluding 0, indicating that perceived usefulness plays a significant role in the mediating effect between positive online review emotional propensity and purchase intention.

Secondly, the mediating effect of the two dimensions of perceived value was examined. The results showed that the emotional propensity of positive online reviews had a significant positive predictive effect on purchase intention ($\beta = 0.51$, $t = 6.35$, $p < 0.001$), and had a significant positive predictive effect on both dimensions of perceived value (quality value: $\beta = 0.55$, $t = 8.30$, $p < 0.001$, emotional value: $\beta = 0.54$, $t = 7.11$, $p < 0.001$). When the two mediating variables of emotional value and quality value were added, the emotional propensity of positive online reviews had no significant predictive effect on purchase intention ($\beta = 0.14$, $t = 0.19$, $p > 0.05$), indicating that the two dimensions of perceived value played a complete mediating role between the two. In addition, the upper and lower limits of the bootstrap 95% confidence interval for the mediating effect of quality value and emotional value did not include 0 (quality value: [0.13, 0.32], emotional value: [0.14, 0.33]), indicating that the

mediating effect of quality value and emotional value was significant.

According to the hypothesis, taking the emotional propensity of negative online reviews as the independent variable, the perceived usefulness, the quality value of the perceived value and the emotional value dimension as the intermediary variables, and the purchase intention as the dependent variable, the effect of the emotional propensity of negative online reviews on the purchase intention was tested. First, the mediating effect of perceived value and perceived usefulness between the emotional propensity of online reviews (positive) and the purchase intention was tested. The results showed that the emotional propensity of negative online reviews did not have a significant predictive effect on the purchase intention, but it had a positive predictive effect on the perceived usefulness (β = 0.24, t = 3.86, p < 0.001). After adding the mediating variable of perceived usefulness, the emotional propensity of negative online reviews was still not significant in predicting purchase intention, but it could significantly negatively predict perceived usefulness (β = -0.26, t = 5.06, p < 0.001), indicating that perceived usefulness played a complete mediating role between the two. In addition, the upper and lower bounds of the bootstrap 95% confidence interval for the mediating effect of perceived usefulness were [-0.11, -0.03], excluding 0, indicating that the perceived usefulness played a significant role in complete mediating.

Secondly, the mediating effect of the two dimensions of perceived value was examined. The results showed that both quality value and emotional value significantly positively predicted purchase intention (quality value: β = 0.34, t = 7.03, p < 0.001, emotional value: β = 0.58, t = 11.94, p < 0.001), but the emotional propensity of negative reviews did not significantly predict these two dimensions and purchase intention. The two dimensions of perceived value contained 0 between the upper and lower bounds of the bootstrap 95% confidence interval for the mediating effect between the emotional propensity of negative online reviews and purchase intention (quality value: [-0.04, 0.03], emotional value: [-0.07, 0.05]), indicating that the two dimensions of perceived value did not have a significant mediating effect between the emotional propensity of negative online reviews and purchase intention.

Discussion

In this study, we simulated the online purchase situation through a questionnaire survey to explore the influence of reading the review text with different emotional tendencies on the purchase intention of the subjects. The results found that when the online review is positive, the emotional tendency of the review has a significant positive impact on the consumer's purchase intention. However, when the online review is negative, the emotional tendency of the review has no significant impact on the consumer's purchase intention.

The results of this study show that for positive online reviews, the emotional tendency of online reviews significantly positively affects consumers' perceived value (quality value and emotional value)

of goods, which validates the research hypothesis. This result is consistent with the conclusions of previous studies (Zhao & Tao, 2018). However, for negative online reviews, the emotional propensity of online reviews does not have a significant predictive effect on the two dimensions of perceived value. The reason may be similar to the impact of emotional propensity on purchase intention. No matter how strong consumers feel from the negative review information, they will feel that the value of the product to themselves does not meet expectations, so they feel that the product is not worth buying, and the degree of pleasure in the shopping process and the degree of trust in the quality of the product will be reduced accordingly.

This study shows that consumers' perceived value has a significant positive impact on their purchase intention, whether it is for positive or negative online reviews. The two dimensions of perceived value play a mediating role between the emotional propensity of online reviews and purchases. This study shows that whether for positive or negative online reviews, the emotional propensity of reviews significantly positively affects consumers' perceived usefulness of reviews. The main reason why the emotional propensity of online reviews can significantly positively affect perceived usefulness is that the higher the emotional intensity of online reviews, the stronger the reviewer's emotion towards the product felt by consumers, thereby increasing the trust of the review and affecting its perceived usefulness to the review. This study found that the perceived usefulness of online reviews had a significant positive impact on consumers' purchase intention when the emotional propensity of online reviews was positive, and the perceived usefulness had a significant negative impact on consumers' purchase intention when the emotional propensity of online reviews was negative. Regardless of whether the emotional polarity of online reviews is positive or negative, perceived usefulness plays a mediating role between the emotional propensity of online reviews and consumers' purchase intention. This result validates the research hypothesis.

Conclusions

This study explores the influence of emotional propensity of online reviews on purchase intention, and the mediating role of consumers on perceived value of goods and perceived usefulness of reviews. The research results are divided into two parts. The first part examines the mediating effect of the two dimensions of perceived usefulness and perceived value with the emotional propensity of positive online reviews as the independent variable and purchase intention as the dependent variable. The results show that the emotional propensity of positive online reviews significantly positively affects purchase intention, and the mediating role of perceived value and perceived usefulness is significant. The second part takes the emotional propensity of negative online reviews as the independent variable and the purchase intention as the dependent variable to test the mediating effect of the two dimensions of perceived usefulness and perceived value. The results show that the mediating effect of perceived

usefulness is significant, the emotional propensity of negative online reviews does not have a significant predictive effect on purchase intention, and the mediating effect of perceived value between emotional propensity and purchase intention is not significant.

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