

The Influence of Social Media Comments on Consumers' Purchasing Decisions in E-commerce

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Abstract. With the development of e-commerce, social media comments have become a key source of information influencing consumers' decisions. However, its uniqueness in terms of content form, credibility construction and influence mechanism urgently need systematic exploration. This study focuses on Chinese social media platforms such as Xiaohongshu and Douyin. Through 100 consumer questionnaires and a 5-level Likert scale, it empirically examines the influence of information source credibility, content form and comment tendency on purchase decisions. Research shows that: (1) Credibility signals significantly enhance the willingness to purchase. 57% of the respondents trust comments with identity verification marks more, and the "Real Purchase" label on the platform has increased the trust level of 75% of the respondents. (2) Visual content such as pictures and videos promotes purchase decisions. 80% of the respondents confirmed that picture/video reviews can help them perceive product features better than plain text, and 75% indicated that they directly promote purchases. (3) Comment on dialectically regulating the psychology of purchasing decisions. Balanced positive and negative comments increased the purchase intention of 64% of respondents by alleviating the sense of contradiction, while a uniform positive review raised 74% of users' doubts about the authenticity.

Keywords: Social media comments, consumer purchase decisions, e-commerce

1. Introduction

In the current era of rapidly spreading e-commerce, the main channels through which consumers obtain information have undergone significant changes. The traditional seller-dominated model is gradually shifting towards a more social and interactive information environment, and comments on social media have become the main source of information influencing consumer purchasing decisions. In addition to the built-in comment systems of e-commerce platforms, social media platforms such as Xiaohongshu and Douyin have gradually developed into important fields for consumers to obtain product reviews and evaluations before making shopping decisions due to their strong openness, high user engagement, diverse content forms, close user relationship networks, and the involvement of Kols. Compared with the comments on e-commerce platforms, social media comments have their own uniqueness in terms of generation motivation, content dissemination and trust mechanisms. However, existing research still needs to delve deeper into how core elements

such as the content form and source credibility in social media comments systematically influence consumer decisions.

Therefore, this study aims to analyse the specific mechanisms through which comments on social media influence the purchasing decision-making process of Chinese e-commerce consumers. It has dual significance both in theory and practice: at the theoretical level, it will reveal the mechanism of socialized word-of-mouth and establish empirical evidence in local scenarios, filling the theoretical content of Western social media comment research. At the practical level, it provides a relatively direct basis for brand content optimization, platform credibility design, and the improvement of consumers' decision-making literacy. The main research objective of this paper is to determine whether key factors (such as the reliability of reviews and the distribution of positive and negative reviews) affect consumers' purchasing intentions and final decisions. We will compare the differences in impact between text-only reviews and reviews that include photos or videos, and further compare the differences between reviews that include positive and negative comments. Finally, assess the actual perceived strength of consumers regarding the impact of social media comments on their overall purchasing decisions. The following (Figure 1) shows the research process of this article.

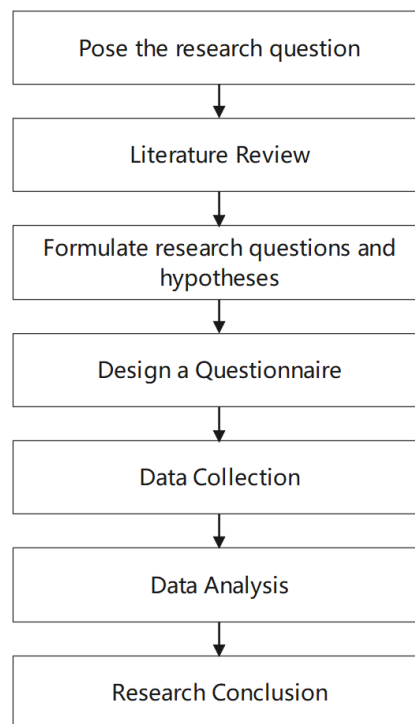


Figure 1. Research flowchart

2. Analysis of the current research status abroad

Currently, international research on the impact of online reviews on consumer decision-making has reached a relatively mature stage and can be categorised into four perspectives.

At the level of information source characteristics, consumers have more trust in high-quality reviews recognized by community voting, and this effect is particularly significant in obscure books [1]; The credibility of information sources varies dynamically. When commenters disclose their real names or geographical locations, sales can be increased [2]; More reliable online reviews can enhance the intention to purchase. Furthermore, consumers evaluate the reliability of feedback on

search-type products and experience-type products based on various criteria. The former looks at the details of the reviews, while the latter looks at the consistency of the reviewers. The continuity of reviews has a positive impact on the purchase intention of both types of products [3].

In terms of the characteristics of the evaluation content, the quality and quantity of comments jointly enhance the purchase intention [4], and the real commenter avatars have jumped the purchase rate from 46.8% to 82% [5], Photos showing the food preparation process increase purchase intention by enhancing quality perception and experience value [6]. Furthermore, comments that are both positive and negative can reduce cognitive conflicts and thereby enhance purchase intention, but the time-marking feature weakens consumers' inference of the commenter's experience [7].

The influence mechanism is realized through both cognitive and emotional channels. In the cognitive path, restaurant evaluation dimensions such as food, environment, and service, along with the number of comments, jointly increase web page visits [8], The quality of argumentation, source credibility and the number of comments jointly drive purchase intention [9]; On the emotional path, eWOM adoption behavior fully mediates the effect of antecedent variables such as information quality and credibility on purchase intention [10], It is confirmed that electronic word-of-mouth influences decision-making through five major factors such as consumer learning and attitude [11], and the hedonic and practical value of live-streaming marketing indirectly promotes purchase through emotional pleasure [12].

The main moderating variables include three aspects: In terms of user characteristics, the quality of negative comments has a stronger impact on highly engaged consumers, but only the proportion has an impact on less engaged consumers [13]. Expert users are easily persuaded by technical parameter-based reviews. Novice users rely on subjective experience comments [14]; In terms of product attributes, high-quality reviews may have a direct negative effect on experiential goods [15], Extreme reviews boost sales in search-type products but suppress sales in experience-type products [16]; In terms of situational elements, the alignment of forum themes with users' interests enhances the persuasiveness of content and indirectly promotes purchase [17], The eWOM task adaptability significantly enhanced the willingness to purchase milk tea during the epidemic [18].

3. Hypothesis

According to a review of past literature, consumer purchasing decisions are complex processes influenced by many factors. Many factors influencing web-based consumer purchasing decisions have been studied. In this paper, we examine the impact of online reviews on consumer purchasing decisions from multiple perspectives and propose the following three hypotheses:

H1: The reliability of information sources has a positive impact on purchasing decisions.

The credibility of a commenter and the credibility of the comments they write have an impact on the purchasing decisions of subsequent buyers. The commenter's identity verification mark enhances consumer trust, and the "Genuine purchase" label reduces the suspicion of information fraud, thereby increasing consumers' purchasing intention.

H2: Compared with plain text reviews, image and video reviews are more effective in promoting purchase intentions.

In contrast, plain text reviews, due to the lack of intuitive sensory verification, make consumers prone to doubts about product quality, details, and the accuracy of the seller's description, which may undermine their confidence. Comments containing clear pictures or videos significantly enhance the reliability perception of product quality information by providing visual evidence.

H3: Moderate negative review information enhances purchase intention.

A single positive review may raise doubts about its authenticity and negatively weaken the purchase decision. In contrast, comments that are both positive and negative will more effectively enhance the willingness to purchase by reducing cognitive conflicts.

4. Methodology

To achieve the above goals, this study will collect 100 valid online questionnaire data, with the survey subjects being e-commerce consumers. The questionnaire adopts a structured design. The first part consists of four questions, mainly investigating the basic personal information of consumers, including gender, age, educational level and the average monthly frequency of online shopping. Part 2 uses a 5-point Likert scale (1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, 5 = strongly disagree), with ten questions (based on Q1, Q2... The display mainly measures three core dimensions: (1) Consumer behavior patterns; (2) Driving factors for the credibility of comment content; (3) The influence of the form of comment content.

The data collection was carried out using the snowball sampling method. The survey samples were collected from almost all groups, including those below the junior college or undergraduate level, undergraduate students, master's and doctoral students in colleges and universities, as well as other members of the public. In the consumer basic information section, the online shopping situations of each consumer were tallied. The purpose was to confirm that these groups have a certain amount of disposable income and some online experience, and are qualified to engage in online shopping activities.

To ensure data quality, data collection was conducted through wechat, QQ, and offline distribution of questionnaires to cover respondents, supplemented by repeated submission checks based on IP/ device ID. When processing data, responses with a completion time of less than 20 seconds or formatted answers will be excluded. Invalid data will be filtered and eliminated through Excel.

5. Results and discussion

This study used 100 valid questionnaires to reveal the significant impact that social media comments have on consumer decisions.

First, summarize the consumer characteristics of this survey (Table 1). There was a total of 100 respondents in this survey, 51% of whom were female and 49% were male, with the number of females slightly exceeding that of males. 51% of the respondents are aged between 18 and 24, and 33% are 31 years old or above. 68% of them have an educational attainment of junior college or bachelor's degree. This questionnaire also investigated the frequency of online shopping each month. Among the respondents, 75% are high-frequency users who shop online more than four times a month, and 67% of the respondents clearly stated that they would check product reviews on social media platforms such as Xiaohongshu and Douyin before placing an order.

Table 1. Sample characteristics

Attribute		Quantity	Percentage(%)
Gender	Male	49	49
	Female	51	51
	Total	100	100
Age	Under the age of 18	9	9
	18-24 years old	51	51
	25-30 years old	7	7
	Over 31 years old	33	33
	Total	100	100
Educational Attainment	Below the junior college/undergraduate	20	20
	Junior college/Undergraduate	68	68
	Master's degree	10	10
	Above Master's degree	2	2
	Total	100	100
Monthly online shopping frequency	1-3 times	25	25
	4-6 times	33	33
	7-9 times	22	22
	More than 10 times	20	20
	Total	100	100

The five-point Likert scale used in Part 2 of the questionnaire mainly includes the following 10 questions: Before purchasing online, I usually check comments about the product on social media platforms (e.g., Xiaohongshu, Douyin, etc.) (Q1); The display of commenters' identities increases my trust in the comments (Q2); Comments with the label 'actual purchase of a specific style' reduce my suspicion of information falsification and give me a sense of security (Q3); Comments with images or videos are more effective than text-only comments in helping me understand the functionality of the product (Q4). Comments with images or videos help me imagine the product's usage scenarios more concretely than text-only comments (Q5); Comments with images or videos directly increase my purchase intent more than text-only comments (Q6). A balanced mix of positive and negative comments may reduce decision-making conflicts and further increase my desire to purchase (Q7). A single positive comment increases my suspicion about the authenticity of the product (Q8); A single positive comment reduces my desire to purchase the product (Q9); Comments on social media had a significant impact on my final purchase decision (Q10).

It is not difficult to see from Figure 2 that the radar chart presents the differences in consumers' perception intensity of the influence of social media comments on 10 dimensions (Q1-Q10) of online shopping decisions. Overall, the average values for all dimensions fluctuate between 3.52 and 4.05 points, indicating that consumers generally recognise the influence of social media comments on their decision-making, but the degree of recognition varies depending on the dimension. The

score for Q1 is 3.88, indicating that overall, social media comments influence online shopping decisions. The Q4 score was the highest at 4.05, significantly ahead of other dimensions, indicating that the "Genuine review" label certified by the platform is crucial for building consumer trust. Q6 and Q8 follow closely behind, being 4.01 and 4.02 respectively, indicating that consumers rely on visual evidence to assist in their purchase decisions. The Q10 score was the lowest at 3.52, indicating that although social media comments have been proven to have an impact on consumers' final purchasing decisions, there is still room for development in the final step of promoting purchases.

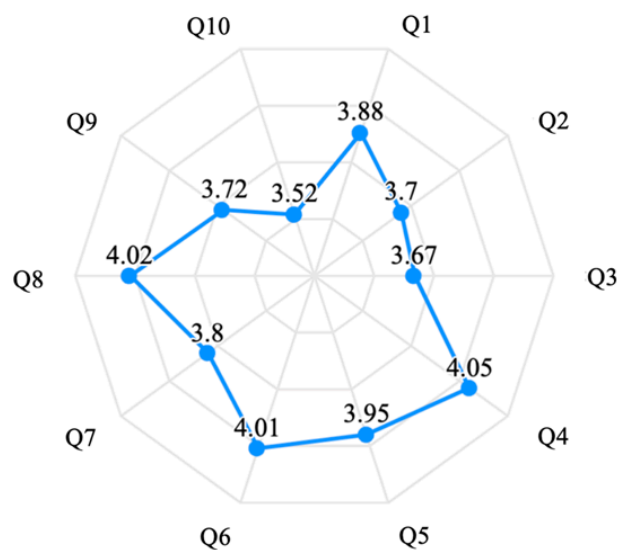


Figure 2. The average rating radar chart of the impact dimension of social media comments

In-depth analysis of the data (Figure 3) reveals the following three key patterns: First, the construction of comment credibility relies on the verification of the commenter's identity and purchasing behavior. 57% of the respondents trust comments with identity verification marks more. When the platform marked "truly purchased a certain style", the trust level of 57% of the respondents increased significantly. Second, the presentation form of the comment content directly determines the efficiency of information absorption to a certain extent. Eighty questionnaires confirmed that comments with pictures, text or videos are more persuasive than pure text. Specifically, 80% of the respondents believe that comments with pictures or videos can help them perceive the functional features of the product more effectively than pure text comments. 70% of the respondents said that comments with pictures or videos enhanced their imagination of the usage scenarios of the products compared with pure text comments. It is noteworthy that 75% of respondents pointed out that comments with images and videos directly increase purchase motivation compared to text-only comments. Thirdly, the dialectical nature of evaluation profoundly influences the psychology when making purchasing decisions. When faced with unanimous positive reviews, 74% of the respondents believed that it would raise doubts about the authenticity of the product. 58% of the respondents said they would reduce their willingness to purchase the product. Balanced positive and negative comments were favored by 64% of the respondents and were more likely to lead to the final purchase.

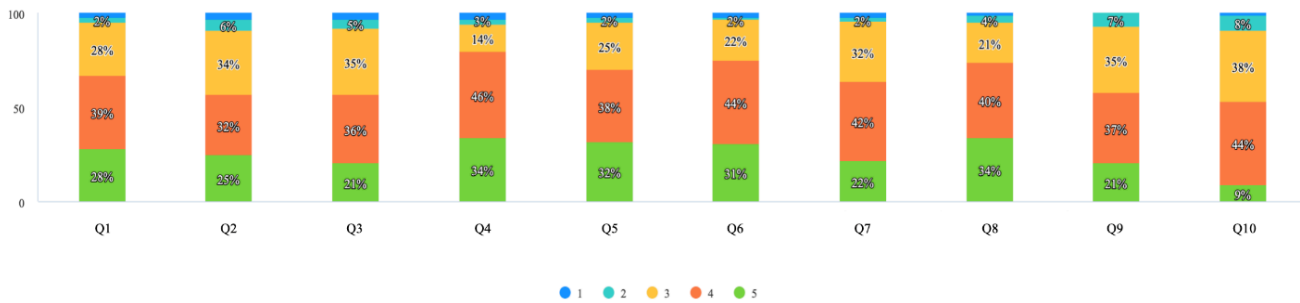


Figure 3. Comparison of the influence dimensions of social media comments on consumers' online shopping decisions

6. Conclusion

Through the research, the following conclusions are drawn:

(1) The reliability of information sources has a positive impact on purchasing decisions. When comments are marked with platform verification such as "Genuine purchase" or come from high-credibility publishers, consumers' trust in their authenticity significantly increases. This trust can prompt consumers to be more inclined to incorporate the content of the comments into their decision-making basis, ultimately enhancing their purchase intention.

(2) Compared with plain text comments, picture and video comments are more likely to promote purchase intention. Image and video reviews enhance consumers' understanding of products through visual evidence, reducing information uncertainty. Compared with plain text reviews, the sensory experience they offer is more likely to arouse consumers' desire to purchase.

(3) Moderate negative review information can enhance the willingness to purchase. The existence of a moderate number of negative reviews suggests that the reviews have not been deliberately filtered out. Instead, it enhances the overall credibility of the review system, can balance consumers' suspicion of a uniform positive review, and thus facilitate the final purchase.

7. Shortcomings and prospects

Although this study has revealed the key influencing factors of social media comments on consumers' purchasing decisions, there are still several limitations that deserve attention. In terms of sample coverage, due to the limitations of the snowball sampling method and the scale of the questionnaire, the proportion of respondents aged 18-24 is over half. The proportion of highly educated people and frequent online shoppers is relatively high, which may weaken the universality of the research conclusion for middle-aged and elderly people, those with low online access frequency, and people in the lower-tier markets. At the measurement dimension level, relying on the perceived intensity reported by consumers themselves poses a risk of deviation between subjective cognition and true behavior. At the same time, the failure to conduct an in-depth analysis of the differentiated influence paths of different types of products has also weakened the accuracy of practical guidance. At the methodological level, cross-sectional questionnaire data is difficult to capture the dynamic decision-making process, and the temporal tension has not been fully analyzed.

Future research can seek breakthroughs in two aspects: In terms of theoretical deepening, product classification moderating variables can be introduced to verify the differentiation effect between experiential and functional commodities; In terms of method innovation, vertical panel data is

adopted to track the full-chain behavior of consumers from review browsing to actual order placement.

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