

The Influence of E-commerce User Stickiness on Consumer Willingness: Take Douyin E-commerce Live Streaming as an Example

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ABSTRACT

With the rapid development of internet technology, online shopping has become increasingly convenient. E-commerce has become an important force driving economic growth. The scale of e-commerce in China continues to expand, and the topic of Douyin e-commerce is very popular. According to industry data, the scale of China's live-streaming e-commerce market exceeded 5 trillion yuan in 2024. Among them, Douyin e-commerce live-streaming, with its large user base and efficient content distribution capabilities, occupies an important market share. The Douyin platform has over 4 million live-streaming sessions per day, and users spend over 35 minutes watching live streams per day. The user behavior in the live-streaming scenario shows the characteristics of "high-frequency interaction and close emotional connection". This article will use a questionnaire survey to study the stickiness of e-commerce users and enhance consumers' consumption willingness.

KEYWORDS

E-commerce user stickiness; Consumer intention; Questionnaire survey; Repurchase rate

1 Introduction

1.1 Domestic Research

In the domestic research, there are studies that define and measure user stickiness: The research conducted by the Institute of Psychology of the Chinese Academy of Sciences pointed out that online customer stickiness is an important factor for the success of the online economy, manifested as users' continuous, frequent and repeated visits to the website, and it is a behavior with certain psychological dependence characteristics formed on the basis of continuous use. For e-commerce websites, repeat purchase is a more practical indicator to measure user stickiness. Factors influencing user stickiness: Some studies suggest that the influencing factors of user stickiness include user characteristics, product characteristics, platform characteristics, etc. The demographic characteristics of users, consumption habits, interaction behaviors, etc. will affect their stickiness to the e-commerce platform, and product features such as quality, diversity, and price are also crucial. As for the impact of user stickiness on consumer intention: Relevant studies show that the degree of consumer attachment to the shopping website is positively correlated with shopping frequency, shopping amount, repeat purchase rate and other shopping behaviors, and factors such as website design, service quality, product quality, and user evaluation all have a significant impact on the degree of consumer attachment to the shopping website, thereby influencing consumer intention. Domestic research has also studied the impact of live streaming interaction on consumer purchase behavior^[1-3]. Researchers explored psychological factors for analysis, covering the logical connections in different scenarios^[4,5].

1.2 Foreign Research

In foreign research, there is the impact of user stickiness on purchase intention: A study conducted through a survey of 434 online users found that website stickiness is a powerful predictor of consumers' transaction intention. Users' attitudes towards the website, trust, and the quality of website content will affect the formation of stickiness, and thereby influence purchase intention. User intention in cross-border mobile e-commerce: In the cross-border mobile e-commerce field, research combines the theory of psychological distance and the theory of commitment - trust to find that consumer trust is very important for online business, but in the cross-border mobile e-commerce environment, relationship commitment is more important for online consumer intention. Consumer satisfaction is important for both trust and commitment. User stickiness in social e-commerce: Foreign research analyzed the impact of online interaction on user stickiness from the perspective of shopping value, finding that perceived usability and social interactivity can positively affect utilitarian shopping value and user stickiness, while perceived usefulness and social interactivity positively affect hedonic shopping value, thereby influencing user stickiness and consumer intention. It used affinity to support the influence of emotional connection on intention^[6]. There are also studies that reveal the shaping role of trust through model establishment^[7,8].

1.3 Research Review

The research question is whether there is a simple "behavior → behavior" correlation between user stickiness and consumer intention, or whether it involves deeper factors such as emotions and cognition and is a complex interaction? For example, is high behavioral stickiness (such as frequent logins) necessarily associated with high purchase intention? The effectiveness of the influencing path: Are there priority levels for the different dimensions of user stickiness (such as behavioral stickiness vs emotional stickiness) in influencing consumer intention? Which dimension has a more significant and longer-lasting effect? The contradiction in practical implementation: How to balance the strategies of "improving user stickiness" and "transforming consumer intention"? For instance, is excessively pursuing the duration of user stay likely to reduce purchase efficiency due to information overload, thereby suppressing intention? The difference between long-term and short-term effects: Is the influence of user stickiness on consumer intention a short-term immediate effect or a long-term cumulative effect? How to achieve sustainable improvement of consumer intention through stickiness operations? And to reveal the influencing mechanism: To clarify the specific effect paths and impact intensities of e-commerce user stickiness (such as user repeat visit frequency, stay duration, interaction depth, etc.) on consumer intention (including purchase intention, recommendation intention, price tolerance intention, etc.).

2 Research Process

2.1 Through Analysis Based on Questionnaire Surveys and Interviews

Conducted questionnaire surveys in schools and communities, covering people of all age groups. The method was to ensure that the sample included users of different age ranges (18-25 years old, 26-45 years old, over 46 years old), different consumption capabilities (high, medium, low), and different usage frequencies (high frequency: more than 3 times per week; medium frequency: 1-2 times per week; low frequency: less than 3 times per month). The AI was used to analyze the questionnaire content, make modifications, and improve the questionnaire. The independent variables were determined. The independent variables were measured from three dimensions: behavioral stickiness - the frequency of login in the past 3 months, browsing duration, repeat purchase times, emotional stickiness - trust in the platform's products and after-sales service, preference, and willingness to actively recommend. As well as cognitive stickiness - familiarity with the platform's rules and functions, and dependence (such as whether one is accustomed to using the platform for price comparison). The dependent variable was consumer willingness, whether to purchase again. The control variables were age and gender. The items were designed as follows: Behavioral stickiness: "In the past 3 months, I have logged into this e-commerce platform on average ≥ 3 times per week" "The single browsing duration on this platform usually exceeds 15 minutes"; Emotional stickiness: "I trust the quality and after-sales service of the platform's products" "Compared to other platforms, I prefer to use this platform for shopping"; Cognitive stickiness: "I am familiar with the platform's discount rules and operation procedures" "When shopping, I will prioritize using this platform rather than other platforms"; Purchase willingness: "In the next 1 month, I am likely to shop again on this platform" "Even if the prices of some products on this platform are slightly higher, I still want to purchase"; Control variables: single-choice/fill-in-the-blank (such as "Your average monthly online shopping expenditure: A. Less than 500 yuan B. 501-1000 yuan C. 1001-3000 yuan D. 3000-5000 yuan E. 5000-8000 yuan F. More than 8000 yuan"). This questionnaire uses a Likert 5-point scale: . Questionnaire structure planning (total number of questions 20-30, duration 5-8 minutes)1. Instruction: Explain the purpose of the survey (only for academic/ commercial research, anonymous and confidential), filling time, and guide voluntary participation2. Screening questions: "Have you had e-commerce shopping experience in the past 3 months?" (If not, terminate filling)3. Core questions: Arranged in the order of "Behavioral stickiness → Emotional stickiness → Cognitive stickiness → Consumer willingness" Afterward, a 10-yuan red envelope was distributed to increase the response rate

Through the questionnaire survey, it was found that the online shopping rate was the highest among the age group of 26-45 years old. Among them, the probability of spending between 1000-3000 yuan per month was the highest in terms of monthly e-commerce consumption amount. Among the people with an income of 1000-3000 yuan, the proportion was the highest, reaching 37.8%; those with an income of 3000-5000 yuan accounted for 25.4%; those with an income of 500-1000 yuan accounted for 18.6%; those with an income of 5000-8000 yuan accounted for 11.2%; those with an income of 8000 yuan or more accounted for 4.5%; and those with an income of less than 500 yuan accounted for 2.5%. This data indicates that people aged 25-46 have certain purchasing power in e-commerce consumption, and most people's e-commerce consumption is concentrated in the range of 1000-5000 yuan, which is also the core consumer group of e-commerce platforms.

2.2 Factors Affecting the Repurchase rate of E-commerce Products

Product quality: Among the factors affecting the stickiness of e-commerce, product quality was mentioned the most frequently, with 1628 respondents considering it an important factor, accounting for 88.0%. When consumers shop on e-commerce platforms, they are most concerned about whether the products meet the expected quality standards. High-quality products are the basis for maintaining user stickiness. Price advantage: Price advantage ranked second. Some people believe that price is the key factor affecting their continuous consumption on e-commerce platforms, accounting for 76.9%. In similar products, if the e-commerce platform can offer more competitive prices, such as discounts, full discounts, coupons, etc., it is easier to attract consumers to remain. Logistics speed: The importance of logistics speed cannot be ignored. Some respondents valued logistics efficiency, accounting for 68.0%. Fast and efficient logistics services can enhance consumers' shopping experience, especially for fresh food, urgently needed items, etc., where logistics speed directly affects the users' repurchase intention. After-sales service: After-sales service ranked fourth, and some people regarded it as an influencing factor of e-commerce stickiness, accounting for 61.6%. A complete after-sales service, such as convenient return and exchange, timely customer service response, and efficient resolution of after sale issues, can enhance consumers' shopping confidence and increase users' trust in the platform. Platform experience: Platform experience (including page design, operation convenience, search function, payment process, etc.) accounted for 52.3%, and some respondents paid attention to it. A smooth and convenient platform usage experience can reduce consumers' shopping obstacles, improve users' satisfaction, and thereby increase stickiness. However, people aged 18-25 and those over 46 years old do not shop on the internet as much due to their lack of proficiency in using smartphones or financial factors. The 18-25 age group is more inclined to purchase cheaper products and has a lower purchase rate.

3 Summary

The final results obtained through the questionnaire survey can provide some suggestions for e-commerce platforms and merchants.

3.1 For E-commerce Platforms

Strengthening quality control of goods: Establish strict merchant admission mechanisms and product review processes, increase the inspection intensity of product quality, impose severe penalties on violating merchants and counterfeit products, protect consumers' rights and interests, and enhance the platform's credibility.

3.1.1 Formulating Reasonable Pricing Strategies

Launch genuine and effective price discount activities, avoid false marketing, and at the same time, through big data analysis, understand consumers' price sensitivity, formulate differentiated pricing plans for different consumer groups, maintain price competitiveness.

3.1.2 Optimizing Logistics Distribution System

Strengthen cooperation with high-quality logistics companies, increase investment in logistics infrastructure, improve logistics delivery speed and service quality, especially for remote areas, to complete the logistics coverage network, update logistics information in a timely manner, and enhance consumers' logistics experience.

3.1.3 Improving After-sales Service Level

Establish an efficient after-sales customer service team, optimize the return and exchange process, shorten the handling time of after-sales issues, ensure that consumers can receive timely and satisfactory solutions when encountering problems, and enhance consumers' trust in the platform.

3.2 For E-commerce Merchants

3.2.1 Paying Attention to Product Quality

Strictly control the production, procurement, storage, etc. of goods, ensure that product quality meets relevant standards and consumers' expectations, establish a good brand image by providing high-quality products, and attract consumers to make repeat purchases.

3.2.2 Improving Service Quality

Strengthen training for customer service staff, improve the professional quality and service awareness of customer service staff, promptly and patiently answer consumers' questions, provide high-quality pre-sale, in-sale, and after-sale services, and establish good customer relationships.

3.2.3 Participating actively in Platform Activities

Combine platform promotional activities, formulate reasonable marketing strategies, launch attractive product packages and discount plans, increase product exposure and sales, and at the same time, through membership systems, point redemption, etc., cultivate consumers' loyalty and increase user stickiness.

3.2.4 Paying Attention to Consumer Needs

By analyzing consumers' shopping data and feedback information, understand changes in consumers' needs and preferences, promptly adjust product types and styles, launch new products that meet market demands, and meet consumers' personalized needs. Through this plan, consumers' consumption stickiness towards e-commerce can be increased.

3.3 This Article Covers Almost All Mainstream Age Groups for Analysis, and Most Consumers' Stickiness Depends on Whether they Receive Good Service Attitude and After-sales Service when Consuming

It can be summarized as whether they receive a good experience. If the stickiness and trust are achieved, it will increase and become a loyal customer. However, due to the limitations of the research ability, it was not possible to obtain information and data from e-commerce platforms for analysis and organization.

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