

# The Influence of Interactivity in E-commerce Live Streaming on Consumers' Online Purchase Intention

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**Abstract:** In recent years, the rapid development of live-streaming e-commerce has made it a primary marketing model for e-commerce platforms and live-streaming platforms. The features of live-streaming e-commerce, such as authenticity, entertainment, interactivity, and visibility, offer consumers a novel experience. Consumers' purchase intentions can be influenced by various external factors, such as the environment, atmosphere, and service quality of shopping venues, as well as by internal factors related to the consumers themselves. In a live-streaming e-commerce environment, hosts can introduce products to consumers in real-time, share knowledge, and promptly answer consumer questions. Consumers can also interact with each other in real time through comments. However, as time progresses, the competition within the live-streaming e-commerce industry has become increasingly intense. To thrive in this environment, it is essential to understand the behavior and psychological changes of live-streaming users from different perspectives and comprehensively analyze the influence of interactivity in live-streaming e-commerce on consumers' online purchase intentions.

**Keywords:** Live-streaming e-commerce, Purchase intention, Interactivity.

## 1. Explanation of E-commerce Live Streaming

### 1.1. Background of E-commerce Live Streaming

Online live streaming began in 2015 and initially offered only a single mode of entertainment streaming. After 2016, online live streaming entered a phase of rapid development [1-2]. As the number of viewers continued to increase, the content of live streaming became more diverse to meet the

cultural and material needs of the audience. Consequently, the live-streaming industry began collaborating with different fields, accelerating its growth and expanding its user base, as shown in Figure 1. E-commerce live streaming emerged as a result. The integration of e-commerce and live streaming addresses the issue of discrepancies between traditional e-commerce images and actual products. Through hosts' demonstrations and explanations, consumers can intuitively understand products, thereby meeting their needs. E-commerce live streaming has since entered a phase of rapid growth [3].

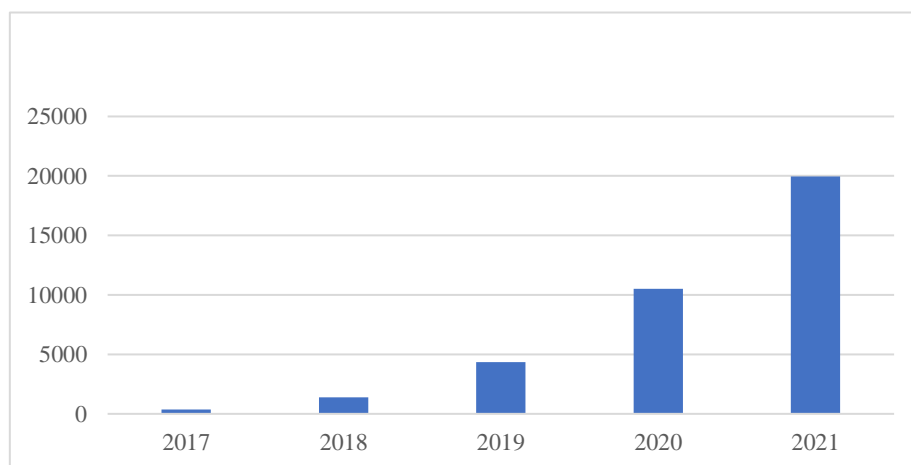


Figure 1. The Market Size of China's Live-streaming E-commerce from 2017 to 2021

### 1.2. Definition and Classification of E-commerce Live Streaming

Since e-commerce live streaming is a relatively new phenomenon, it has yet to be uniformly defined by society and is currently classified under the category of online live streaming [4]. Therefore, e-commerce live streaming can be defined as a form of online shopping that uses e-commerce as its foundation, live streaming technology as its medium, and product sales as its goal, with e-commerce hosts representing

businesses to provide real-time services or products to users.

Currently, there are two main types of e-commerce live streaming in China. The first type is represented by platforms like Taobao, which integrates live-streaming technology into e-commerce platforms to recommend products through live streaming. This consumption model combines "consumer-driven shopping + host-guided shopping." Typically, users visit e-commerce shopping sites with the intent to shop, so this model is also called purposeful consumption. The second type, represented by platforms like Douyin and Kuaishou,

incorporates product links into professional live-streaming videos for sales recommendations, aiming to monetize traffic [5-6]. This approach is categorized as creative consumption.

### 1.3. Characteristics of E-commerce Live Streaming

E-commerce live streaming has revolutionized the way consumers interact with products and brands, offering a dynamic alternative to traditional e-commerce platforms. Unlike conventional online shopping, which often relies on static images and text descriptions, e-commerce live streaming leverages real-time streaming technology to deliver a more engaging and immersive shopping experience. This format provides consumers with richer and more detailed product information, allowing them to see products in action and gain a better understanding of their features and benefits.

Live streaming operates on a one-to-many model, meaning that a single host can interact with a large audience simultaneously [7]. This approach not only facilitates online shopping but also creates a social environment where consumers can engage with both the host and each other. During a live stream, consumers can ask questions, provide feedback, and share their shopping experiences in real time. This interactive aspect enhances consumer trust and satisfaction, as they receive immediate responses to their inquiries and can make more informed purchasing decisions.

As a novel shopping format, e-commerce live streaming offers several unique characteristics that set it apart from typical online shopping experiences:

#### 1.3.1. Real-time Interactivity

The audio-visual information transmitted in e-commerce live streaming is real-time and generally unedited, enhancing the effectiveness of information transmission and providing users with a true and intuitive understanding of product information, thereby increasing consumer trust. The new "e-commerce + live-streaming" shopping model is not limited by time and space, allowing users to understand the live-streaming context and providing them with an immersive experience. Compared to regular shopping websites, e-commerce live-streaming offers a more realistic, intuitive, and comprehensive real-time shopping experience.

#### 1.3.2. Interactivity

Interactivity is a significant advantage of e-commerce live streaming. Users can ask questions based on their needs while watching live streaming [8-9]. Hosts can receive consumer feedback instantly through real-time comments, understand consumer needs, and respond accordingly. During the live stream, hosts can engage with consumers through methods like screenshot raffles and distributing red envelopes, creating a positive live-streaming atmosphere and encouraging consumer participation. Compared to previous online shopping methods, e-commerce live streaming offers stronger interactivity.

#### 1.3.3. Sociability

In e-commerce live-streaming sessions, consumers can interact with both e-commerce hosts and other consumers. They can choose live streams and hosts according to their preferences, such as selecting beauty bloggers with similar skin types or clothing hosts with similar body types. Since live-streaming sessions gather many users with similar interests or purchasing preferences, consumers can use the comment function to share and exchange shopping experiences and obtain valuable information, creating a real-

time social network of consumers, hosts, and other consumers.

## 2. Factors Affecting Consumers' Online Purchase Intention in E-commerce Live Streaming

### 2.1. Information Acquisition

Due to the unique interactive characteristics of e-commerce live streaming, it provides consumers with an immersive experience. Consumers can learn detailed product information during the live stream, with the visual experience enhancing the dimensions of product information transmission. Consumers' understanding of products goes beyond simple text and image descriptions. In the live stream, interactive Q&A sessions bridge the gap between consumers and businesses. Consumers can ask questions about product features, sizes, combinations, etc., and have their doubts resolved by hosts' professional answers, adding warmth and personalization to shopping and increasing purchase determination [10].

### 2.2. Shopping Experience

E-commerce live streaming possesses unique charm, stimulating consumer interest and creating a new shopping experience. The dialogue between live streams and consumers not only conveys product information but also establishes an emotional connection, allowing consumers to purchase products in a relaxed atmosphere. Each live-streaming comment reflects consumers' direct expressions, while likes and raffle activities increase consumer engagement, resulting in a refreshing shopping experience. This highly participatory and interactive shopping experience enhances product impressions and brand affinity, ultimately translating into stronger purchase intentions and loyalty.

### 2.3. Personal Preferences

In lively e-commerce live-streaming scenes, hosts play the role of showcasing products while promptly addressing consumer questions and strengthening emotional connections with consumers. To achieve this, hosts can seamlessly integrate product features into consumers' daily lives, adopting scenario-based and storytelling approaches to foster emotional connections. Additionally, live-streaming content should align closely with consumer preferences, such as fashion trends, healthy living, and parent-child interactions, to quickly establish emotional connections and increase purchase desire. Using real-time interactive methods within live streams enhances consumers' sense of participation and belonging. Live streams can receive immediate market feedback by analyzing these interaction data, ensuring that each recommendation meets consumers' needs, further promoting the transformation of purchase intentions.

### 2.4. Limited-time Promotions

Limited-time promotions in e-commerce live streaming cleverly utilize principles of urgency and scarcity to create an enticing shopping environment, as shown in Table 1. Within the live stream, hosts use compelling language to emphasize the advantages of promotional activities and capture consumer attention. To complete sales within a specified time, hosts can incorporate countdowns and remaining inventory information to create a sense of urgency and immediacy. This instant interactive feedback mechanism allows consumers to experience the passage of opportunity firsthand, accelerating

their decision-making process to complete purchases. To build stronger consumer connections, hosts can enhance consumer trust by answering audience questions and collecting feedback, creating a two-way interactive approach that aligns limited-time promotions with consumers' needs, resulting in a significant increase in conversion rates.

**Table 1.** Contents of Limited-time Promotions in E-commerce Live Streaming

Limited time promotion elements	Description
Types of Offers	Offering various forms of price discounts such as markdowns, threshold discounts, buy-one-get-one-free deals, flash sales, and coupons to attract consumers to make purchases.
Intensity of preferential treatment	Discounts relative to the original or regular price, such as "50% off" or "Save \$100 on purchases over \$300," clearly inform consumers of the amount or percentage they save.
Time limit	Set start and end times for promotional activities, such as "Limited to the first 100 customers," to create a sense of urgency and encourage consumers to place orders quickly.
Inventory pressure	Emphasize the limited stock of products with phrases like "Only 10 left" or "While supplies last" to increase consumers' sense of urgency to purchase.
Countdown tips	Use countdown timers during live broadcasts to visually display the remaining time of the promotion, continuously reminding consumers to seize the opportunity.
Anchor guide	The host uses language, actions, and expressions to consistently emphasize the discounts and urgency of the promotional activity, guiding consumers to place orders.

### 2.5. Brand Loyalty

Interactivity in e-commerce live streaming plays a significant role in building brand loyalty. For example, the national brand Hongxing Erke uses live streaming to provide detailed and professional product introductions that highlight the comfort and design of their shoes and clothing. The hosts actively respond to every consumer question during interactive segments, demonstrating the brand's deep care for consumers. This immediate and thoughtful service makes the audience in the live stream feel respected, thereby enhancing their trust and goodwill toward the Hongxing Erke brand.

In July 2021, the Henan region experienced severe rainstorms, leading to devastating floods that greatly impacted the lives and production of the local people. Hongxing Erke donated 50 million yuan worth of supplies through channels such as the Zhengzhou Charity Federation and the One Foundation to aid the Henan disaster areas. Hongxing Erke's donation during the Henan floods fully demonstrated its social responsibility and compassion as a business [11]. This emotional connection, built on interaction, encourages consumers to choose Hongxing Erke over other options, making them advocates for the brand and further boosting brand loyalty and market share.

## 3. Optimization Strategies to Enhance Interactivity in E-commerce Live Streaming

### 3.1. Providing a Convenient Live Streaming Platform Environment

Interaction between consumers and the platform positively impacts consumers' purchase intentions and sense of social presence. By tailoring to specific development needs and creating scenario-based experiences, the communication channel between brands and consumers can be shortened. In a convenient and comfortable live-streaming platform environment, the customized "product-scene" model can bring about an atmosphere of happiness and satisfaction beyond the product itself. Additionally, brands can set up live-streaming rooms that highlight their image, allowing consumers to gain an in-depth understanding of the brand and its products, achieving optimal promotional effects.

In the chatting process, emoticons can express real emotions and more profound content. Similarly, live streaming platforms can offer a variety of dynamic emoticons with added 3D effects to make chatting more fun, enabling businesses and hosts to intuitively understand consumer mood changes.

### 3.2. Enhancing Interaction Between Hosts and Consumers

E-commerce live streaming can be done through brand self-broadcasting or by collaborating with influencers and celebrity hosts. During live streaming, if brand representatives want to comprehensively showcase their brand and products, they should promptly respond to consumer questions. This can alleviate consumer doubts and enhance their sense of social presence while establishing a positive marketing and public relations image.

When influencers or celebrities are involved in selling products, they can use their influence during live streams to guide consumers through engaging communication methods and interactive activities. Before live streaming, adequate preparation should be made regarding product selection, combination, and pricing, ensuring a rational judgment. Real-time control of popularity, interaction, atmosphere, and discount strength during the stream can enhance consumers' sense of presence while watching [12-13].

### 3.3. Creating a Positive Social and Cultural Atmosphere

At its core, an e-commerce live streaming platform is a virtual social venue. Consumers choose live-streaming sessions based on their needs, and when they participate in online interactive discussions during live streaming, they can gain a more comprehensive understanding of product information. This interaction enhances their social perception and reduces the sense of detachment associated with virtual networks, creating a web of relationships and fulfilling consumers' social and emotional responses, bringing the two ends of the screen closer [14].

To achieve this, businesses can target the mass market when selecting products, focusing on highlighting unique features to enhance core competitiveness. By continuously optimizing and creating various interactive channels, e-commerce live streaming merchants can facilitate consumer exchanges, help consumers understand product and brand

information, and establish a positive interactive atmosphere.

## 4. Conclusion

In conclusion, with the rapid development of internet technology, consumers' shopping habits have significantly shifted from offline to online shopping, emphasizing a more convenient and personalized shopping experience. E-commerce live streaming emerged in this context, leveraging its advantages of interactivity and real-time engagement to act as a bridge between businesses and consumers. It breaks the static display mode of traditional e-commerce, creating a real shopping scene through real-time interaction, enhancing consumers' shopping experience and trust. As consumer demands diversify and technology advances, e-commerce live streaming will continue to innovate and develop, injecting new vitality into the industry.

## References

- [1] Agrawal, D. R., and Fox, W. F. (2017). Taxes in an e-commerce generation. *Int. Tax. Public. Finan.* 24, 903–926. doi: 10.1007/s10797-016-9422-3
- [2] Haimson, O. L., and Tang, J. C. (2017). “What makes live events engaging on facebook live,” in *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, (Denver, CO).
- [3] Dubé, L., and Menon, K. (2000). Multiple roles of consumption emotions in post-purchase satisfaction with extended service transactions. *Int. J. Serv. Ind. Manag.* 11, 287–304. doi: 10.1108/09564230010340788
- [4] Guo, L. (2020). Cross-border e-commerce platform for commodity automatic pricing model based on deep learning. *Electron. Commer. Res.* doi: 10.1007/s10660-020-09449-6
- [5] Guercini, S., and Runfola, A. (2015). “Internationalization through e-commerce. the case of multibrand luxury retailers in the fashion industry,” in *The International Marketing in the Fast Changing World*, eds B. Stöttinger, B. B. Schlegelmilch, and S. Zou (Bingley: Emerald Group Publishing Limited), 15–31.
- [6] Jacoby, J. (2002). Stimulus-organism-response reconsidered: an evolutionary step in modeling (consumer) behavior. *J. Consum. Psychol.* 12, 51–57. doi: 10.1207/S15327663JCP1201\_05
- [7] Hu, M., Zhang, M., and Wang, Y. (2017). Why do audiences choose to keep watching on live video streaming platforms? An explanation of dual identification framework. *Comput. Hum. Behav.* 75, 594–606. doi: 10.1016/j.chb.2017.06.006
- [8] Cai, J., Wohn, D. Y., Mittal, A., and Sureshabu, D. (2018). “Utilitarian and hedonic motivations for live streaming shopping,” in *Proceedings of the 2018 ACM International Conference on Interactive Experiences for TV and Online Video*, Seoul.
- [9] Hu, M., and Chaudhry, S. S. (2020). Enhancing consumer engagement in e-commerce live streaming via relational bonds. *Internet. Res.* 30, 1019–1041. doi: 10.1108/INTR-03-2019-0082
- [10] Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *J. Marketing. Res.* 18:39. doi: 10.2307/3151312
- [11] Guo, Y., Bao, Y., Stuart, B. J., and Le-Nguyen, K. (2018). To sell or not to sell: exploring sellers’ trust and risk of chargeback fraud in cross-border electronic commerce. *Inform. Syst. J.* 28, 359–383. doi: 10.1111/isj.12144
- [12] Bieron, B., and Ahmed, U. (2012). Regulating E-commerce through international policy: understanding the international trade law issues of e-commerce. *J. World Trade.* 46, 545–570.
- [13] Hair, J. F., Sarstedt, M., Ringle, C. M., and Gudergan, S. P. (2018). *Advanced Issues in Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks: Sage Press.
- [14] Aizen, I. (1991). The theory of planned behavior. *Organ. Behav. Hum. Dec.* 50, 179–211. doi: 10.1016/0749-5978(91)90020-T