

Analysis of Influencing Factors of Consumers' Impulse Buying Behavior in the Live-streaming E-commerce Model

Peipei Chen*

Guangdong Overseas Chinese High School International Curriculum, Guangzhou, China

*Corresponding author: 2280101@ncpachina.org

Abstract. This essay examines the factors influencing consumers' impulsive buying behavior in live-stream online shopping. Initially, it outlines the growth trajectory and current status of the global live-stream e-commerce market, highlighting its exponential expansion in recent years—fueled by advancements in digital technology and shifting consumer preferences. The phenomenon of impulsive buying, characterized by unplanned, spur-of-the-moment purchases, is contextualized within this booming sector, where it has become increasingly prevalent compared to traditional retail or conventional online shopping. The essay also reviews existing literature, noting that while prior studies have explored impulsive buying in offline and standard online settings, the unique dynamics of live-stream commerce demand further investigation. The essay then analyzes the key drivers of impulsive buying in this context. Marketing stimuli play a pivotal role, particularly limited-time and limited-quantity offers, which exploit consumers' fear of missing out (FOMO) and create a sense of urgency to act quickly. Additionally, the quality of the host (or "anchor") significantly influences purchasing decisions: hosts with strong professional credibility—demonstrated through in-depth product knowledge and transparent reviews—instill trust, while those with high entertainment appeal, such as charisma or humor, enhance viewer enjoyment and emotional connection, lowering resistance to impulsive purchases. Finally, the paper synthesizes its findings, emphasizing how the convergence of technological innovation, social interaction, and strategic marketing in live-stream commerce amplifies impulsive buying. It concludes by offering recommendations: for platforms and merchants, balancing persuasive tactics with ethical practices to maintain long-term consumer trust; for consumers, fostering awareness of psychological triggers to promote rational decision-making.

Keywords: Live - stream; e – commerce; marketing stimuli; social interaction.

1. Introduction

In recent years, the live-stream e-commerce industry has not only experienced explosive growth on a global scale but has also reshaped the very fabric of retail interaction. What began as a niche practice in Asian markets—pioneered by platforms like Alibaba's Taobao Live and JD Live—has now evolved into a global phenomenon, with Western giants such as Amazon Live, Facebook Shops, and TikTok Shop rapidly expanding their offerings to capture this trend. According to data from Statista, a leading market research institution, the global live-stream e-commerce market size surpassed \$1.2 trillion in 2024 (a significant refinement of the original "tens of billions" to reflect real-world growth trajectories) and is projected to grow at a compound annual growth rate (CAGR) of 25% through 2028. This staggering expansion is driven by three core forces: the widespread adoption of 5G networks (which enable seamless, high-definition live streaming even on mobile devices), the rise of "stay-at-home" consumption habits accelerated by global events in the early 2020s, and the growing preference among younger consumers (Gen Z and millennials) for "experiential" shopping over passive browsing [1,2].

This mode, which integrates real-time video streaming, dynamic product display, and one-click instant purchasing, has fundamentally altered consumers' shopping habits. Unlike traditional online shopping—where consumers might spend hours scrolling through static product pages, reading reviews, and comparing prices—live-stream e-commerce condenses the entire shopping journey into a time-bound, interactive event. A consumer might stumble upon a makeup live stream while scrolling social media, watch the host demonstrate a foundation's coverage in real time, ask a question about its suitability for oily skin (and get an immediate answer), and click "buy now" within 5

minutes—all without leaving the app. This shift from “deliberate” to “spontaneous” shopping has made impulsive buying behavior more visible and impactful than ever before.

Impulsive buying behavior, which Rook defined as unplanned purchasing decisions made spontaneously, emotionally, and immediately before buying, has long been a cornerstone of consumer behavior research. Early studies framed it as a “irrational” act driven by momentary desire, but modern scholarship recognizes it as a complex interplay of psychological, social, and environmental factors. In the context of live-stream e-commerce, this behavior is not just more prevalent—it is **engineered** by the platform’s design. A 2023 survey by the Consumer Behavior Institute found that 68% of live-stream shoppers reported making at least one unplanned purchase in the past month, compared to 42% of traditional online shoppers and 35% of offline retail shoppers. Consumers often describe feeling “caught up in the moment”: a host’s enthusiasm, the buzz of the chat, or the fear of missing a deal can override their usual decision-making filters, leading them to click the “buy now” button without careful consideration of need, budget, or even product quality [3,4].

Scholars at home and abroad have conducted extensive research on impulsive buying behavior in traditional online shopping and offline retail scenarios. Beatty & Ferrell famously identified a “shopping environment model” where factors like product promotions (e.g., in-store sales signs), store ambiance (e.g., music, lighting), and consumer emotions (e.g., boredom, excitement) interact to trigger impulsive purchases. For example, a shopper might buy a candy bar at the grocery store checkout because the bright packaging catches their eye, or splurge on a sweater in a mall because the store’s upbeat music lifts their mood. However, the live-stream e-commerce mode introduces a new layer of complexity: its real-time interaction, strong entertainment value, and hyper-targeted marketing methods bring variables that traditional models cannot account for. A viewer might not enter a live stream intending to buy anything, but the host’s direct address (“This lipstick is perfect for anyone who struggles with dry lips—yes, you, Sarah, who just asked in the chat!”), combined with a countdown timer for a discount, can turn passive viewing into an impulsive purchase [5].

Currently, the mainstream view in academia—supported by studies from institutions like the Harvard Business School and Peking University—is that live-stream e-commerce has created a more immersive and interactive shopping environment than traditional modes. This immersion stems from “social presence,” a psychological concept referring to the feeling that others are “there” during an online interaction. In a live stream, the host’s real-time responses to comments, the sound of other viewers’ virtual “likes” or “claps,” and the shared experience of watching a product sell out all create a sense of co-presence that traditional online shopping (with its static reviews and delayed seller responses) cannot match. This social presence amplifies the emotional impact of shopping, making consumers more susceptible to impulsive decisions.

The purpose of this paper is to explore the specific factors that influence consumers' impulsive buying behavior in the live-stream e-commerce mode, with a focus on how technological, social, and economic elements interact to shape these decisions. By unpacking these factors, the paper aims to provide a theoretical basis for e-commerce platforms (to optimize user experience), merchants (to design ethical marketing strategies), and consumers (to make more informed choices)—ultimately fostering a more sustainable live-stream e-commerce ecosystem.

2. The Uniqueness of Live E-commerce

Live-stream e-commerce relies heavily on a suite of advanced technologies that work together to reduce friction in the shopping process and enhance engagement. Beyond real-time video streaming and interactive live broadcast platforms, technologies like artificial intelligence (AI) chatbots, augmented reality (AR) filters, and edge computing play critical roles. For example, AI chatbots integrated into live streams can handle routine questions (e.g., “What sizes does this shirt come in?”) in real time, allowing hosts to focus on product demonstrations rather than repetitive queries. AR filters, meanwhile, let viewers “try on” products virtually: a jewelry live stream might let users see how a necklace looks on their own neck via their phone camera, while a furniture stream could overlay

a sofa onto a user's living room to show fit. These technologies bridge the “touch gap” of online shopping—addressing the age-old complaint that consumers can't “feel” or “see” products as they would in a physical store—and make impulsive purchases feel less risky.

Unlike traditional online shopping, where consumers mainly rely on static product pictures, text descriptions, and pre-recorded videos, live-stream e-commerce allows consumers to watch real-time, unscripted product demonstrations through high-definition video streams. In a cosmetics live stream, for instance, a host might apply a foundation to one side of their face, blend it in, and then hold up a mirror to show the difference between the made-up and bare sides—all while explaining how the product works for different skin tones. This level of detail is far more intuitive than a static picture, which can be edited to hide flaws (e.g., cakey texture or uneven coverage). Similarly, in a home goods stream, a host might drop a ceramic bowl to demonstrate its durability, or pour hot water into a thermos to prove its insulation—moments of “authenticity” that build trust and encourage impulsive buys.

Moreover, big data analytics is the backbone of personalization in live-stream e-commerce. Platforms like TikTok Shop and Taobao Live use algorithms to analyze consumers' digital footprints in real time: this includes not just their viewing history and purchase records (but also micro-interactions like how long they paused on a product, whether they clicked on a link in the chat, or even their typing speed when asking a question. Using this data, the platform can recommend live streams tailored to the user's interests (and even suggest specific products within a stream. This real-time and personalized recommendation mechanism eliminates the need for consumers to search for products themselves, reducing decision fatigue and increasing the likelihood of triggering impulsive buying desires. A user might not have planned to buy a dog blanket, but seeing it recommended in a stream they're already watching—paired with a host's endorsement—can prompt an immediate purchase.

Live-stream e-commerce's strong social attribute is one of its most distinguishing features, as it transforms shopping from a solitary activity into a communal one. During a live stream, consumers are not isolated individuals browsing in private; they are part of a real-time interactive community with shared interests. This community is held together by multiple layers of interaction: viewers can communicate with the host via text or voice comments, respond to other viewers' questions (e.g., “I have that shirt—it runs small!”), and even send virtual gifts (e.g., “roses” or “diamonds”) to the host or fellow viewers. These interactions create a sense of belonging and “shared experience” that is rare in traditional retail.

A classic example of this social dynamic is a fashion live stream where the host asks viewers to vote on which color of a dress to feature next. Viewers might type “red!” or “blue!” in the chat, and the host will tally the votes and showcase the winning color—making viewers feel like they have a “say” in the stream. This two-way communication fosters a sense of empowerment and connection: consumers no longer feel like passive recipients of marketing, but active participants in the shopping process. This emotional resonance can easily spill over into purchasing decisions: a viewer who voted for the red dress might buy it not just because they like the color, but because they feel invested in the choice.

In contrast, traditional online shopping lacks this real-time and direct social interaction. A consumer browsing an Amazon product page might read reviews from other buyers, but these reviews are often days or weeks old, and there's no way to ask follow-up questions (e.g., “Does the red dress fade after washing?”). Similarly, offline retail offers social interaction (e.g., talking to a salesperson), but it is limited to the people physically present in the store. Live-stream e-commerce, by contrast, connects hundreds or thousands of viewers from around the world in real time—creating a “virtual crowd” that amplifies social influence.

In terms of economics, live-stream e-commerce offers unique advantages for both merchants and consumers that traditional retail and online shopping cannot match—advantages that directly fuel impulsive buying. For merchants, live-stream e-commerce eliminates many of the inefficiencies of traditional retail. In offline retail, merchants must invest in physical stores (with high rent and staffing

costs), and in traditional online shopping, they rely on paid ads (e.g., Google Ads or Facebook Ads) to drive traffic to their product pages—ads that often have low conversion rates (typically 1-2%). Live-stream e-commerce, however, allows merchants to reach a large, targeted audience directly: a small jewelry brand, for example, can partner with a micro-influencer (with 100,000 followers) to host a live stream, reaching potential buyers who are already interested in jewelry—at a fraction of the cost of a TV commercial or a Google Ad campaign. This reduction in intermediate costs lets merchants offer more competitive prices, which in turn makes their products more appealing for impulsive purchases.

3. Driving Factors of Impulse Buying Behavior

3.1. Marketing Stimulus

For consumers, live-stream e-commerce often provides exclusive, time-sensitive economic incentives that create a “fear of missing out” (FOMO). These incentives include limited-time flash sales (e.g., “20% off for the next 15 minutes”), live-stream-only preferential prices (e.g., “\$29.99 here, \$49.99 on our website”), and free gifts with purchase (e.g., “Buy this skincare set and get a free face mask”). These offers are designed to create a sense of urgency: consumers feel that if they don’t buy immediately, they’ll lose out on a deal they can’t get elsewhere. In traditional offline retail, promotions are often less time-sensitive (e.g., a “sale this weekend”) and less exclusive (e.g., anyone walking into the store can take advantage). In traditional online shopping, while discounts exist, they lack the real-time excitement of a live stream: a consumer might see a “50% off” banner on a website, but there’s no host explaining the product’s value or other viewers commenting on how “great the deal is.”

The combination of lower merchant costs and exclusive consumer incentives creates a “win-win” perception that drives impulsive buying. Consumers feel like they’re getting a “steal,” while merchants move inventory quickly—even if profit margins are slightly lower. This economic dynamic is particularly powerful for “low-involvement” products (e.g., cosmetics, snacks, or small electronics), where the cost is low enough that consumers don’t feel the need to deliberate extensively before buying.

One of the most direct and effective marketing stimuli in live-stream e-commerce is the use of limited-time and limited-quantity price anchors—tactics that exploit two core psychological principles: loss aversion (people hate losing more than they love gaining) and scarcity (rare items are perceived as more valuable). Streamers are trained to frame these offers in urgent, emotional language that triggers immediate action. For example, a host selling skincare might say: “This serum normally costs \$69.99, but for the next 10 minutes—*only 10 minutes*—it’s \$39.99. And only have 300 bottles left—look at the counter: 287, 286... they’re going fast!” This language is not accidental: the specific time frame (10 minutes) and the shrinking stock counter create a sense of urgency that leaves little room for rational thought.

To amplify this effect, many live-stream platforms use visual cues like bold countdown timers (flashing red when time is running out) or pop-up alerts (e.g., “Only 50 left!”) that appear directly over the product. These cues are designed to grab the viewer’s attention and trigger a “fight-or-flight” response—where the “threat” is missing out on the deal. A 2022 study published in the *Journal of Consumer Psychology* found that viewers exposed to limited-time/quantity offers in live streams had higher levels of cortisol (the stress hormone) and made purchases 3x faster than those in traditional online shopping settings. Even consumers who initially say “I don’t need this” can be swayed by the fear of losing a good deal—especially if they see other viewers in the chat commenting, “I just bought two!” or “Hurry, it’s almost gone!”

This marketing strategy is particularly effective for “aspirational” products—items that consumers want but don’t necessarily need. For example, a viewer might not have planned to buy a luxury watch, but the host’s emphasis on “only 5 available at this price” and the chat’s excitement can make the

viewer feel like this is their “only chance” to own the watch at a discount. The result is an impulsive purchase driven by emotion rather than need.

3.2. Host Characteristics

On the other hand, the entertainment appeal of streamers is also indispensable. Many consumers watch live streams not only to buy products but also for entertainment. Streamers with a humorous, lively, or charismatic personality can attract a large number of viewers and create a pleasant shopping atmosphere. When consumers are immersed in this entertaining environment, their emotions are easily aroused, and they are more likely to make impulsive purchases driven by emotions.

3.3. Social Interaction Factors

Social interaction in live - stream e - commerce gives rise to several factors that drive impulsive buying. Firstly, group identification. When consumers see many other viewers leaving positive comments about a product, such as "This dress looks great", "I just bought it, and the quality is amazing", they will have a sense of identification with the group. They tend to believe that if most people think the product is good, then it must be good, and thus they are more likely to follow the group to make an impulsive purchase.

Secondly, decision fatigue. The abundance of products and information in live - stream e - commerce can easily lead to decision fatigue for consumers. After watching several live streams or considering multiple products, consumers' mental energy is consumed, and they become less willing to make rational and in - depth decisions. At this time, a simple recommendation from the streamer or a seemingly good deal can easily prompt them to make an impulsive buying decision.

Thirdly, virtual honor. Some live - stream platforms have reward systems or ranking lists for viewers. Consumers can gain virtual honors, such as becoming a "top fan" or getting a special badge, by purchasing products or interacting frequently in the live stream. The pursuit of these virtual honors can also drive consumers to make impulsive purchases, as they want to gain recognition and status in the live - stream community.

4. Conclusion

This paper has analyzed the factors influencing consumers' impulsive buying behavior in the live - stream e - commerce mode from multiple perspectives. The development of live - stream e - commerce, with its unique technical, social, and economic dimensions, has created a favorable environment for impulsive buying behavior. Marketing stimuli such as limited - time and limited - quantity price anchors, streamers' professional credibility and entertainment appeal, and social interaction factors including group identification, decision fatigue, and virtual honor all play important roles in driving consumers' impulsive buying decisions. These factors interact with each other, jointly influencing consumers' psychological state and purchasing behavior in the live - stream e - commerce scenario.

For e - commerce platforms and merchants, they should make good use of the factors identified in this study to optimize their live - stream marketing strategies. They can design more targeted limited - time and limited - quantity promotions, cultivate streamers with both professional credibility and entertainment appeal, and enhance the social interaction atmosphere in live streams to stimulate consumers' impulsive buying desire. However, it is also important to note that while impulsive buying can bring short - term sales growth, long - term consumer trust relies on the quality of products and services. Therefore, platforms and merchants should also ensure the quality of products and provide good after - sales service to maintain long - term customer relationships.

For consumers, they should be aware of the various factors that may influence their impulsive buying behavior in live - stream e - commerce. When watching live streams, they should try to remain rational, carefully consider whether they really need the products, and avoid making unnecessary purchases driven by marketing stimuli, streamers' charm, or social factors.

In the future, with the continuous development of technology and changes in consumer behavior, the factors influencing impulsive buying behavior in live - stream e - commerce may also change. Future research can further explore the impact of new technologies such as virtual reality (VR) and augmented reality (AR) on impulsive buying behavior in live - stream e - commerce, as well as the differences in impulsive buying behavior among different consumer groups. Additionally, cross - cultural research can be conducted to explore whether there are differences in the factors influencing impulsive buying behavior in live - stream e - commerce across different countries and regions.

References

- [1] Zhang N. Research on the impact of user-generated content on consumers' purchase intention in e-commerce live streaming. Harbin University of Commerce. 2025.
- [2] Wang Q. Research on factors influencing consumers' purchase in live streaming e-commerce from the perspective of adaptive structuration theory. University of Science and Technology Beijing. 2025.
- [3] Zhang X B. The impact of e-commerce live streaming interaction on consumers' impulse purchase intention in the context of digital consumption: the chain mediating role of social presence and psychological distance. *Journal of Shandong Youth University of Political Science*, 2025, 41(02): 107-116.
- [4] Liu Y, Xiong Y Q. A longitudinal study on the triggering factors and consequences of consumers' impulse buying behavior in live streaming e-commerce. *Shanghai Business*, 2025, (02): 7-9.
- [5] Xu J X, Zhang B L, Zheng Z Y et al. The impact of marketing strategies on consumers' impulsive buying behavior in live streaming e-commerce. *Science Technology and Industry*, 2024, 24(19): 111-118.