

# Live Streaming E-Commerce: Understanding What Causes the Impulse of Consumers, What Affects People's Psyche, And How Live Streaming E-Commerce Promotes Economic Development at The Same Time

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## ABSTRACT

With the popularity of live streaming and the impact of the pandemic, people are gradually switching from offline to online shopping. There is evidence that online impulse buying is becoming a growing trend. Although many studies have looked into consumer impulse buying in offline shopping, there has been little attention paid to online impulse buying in live streaming. The purpose of this study is to investigate the impact of the live-streaming model on shoppers' impulse purchases and the resulting economic development using the stimulus-organization response (SOR) framework. We estimated the model with questionnaires and data from shopping software. The results show that the social status and image of the anchor affect impulse purchases directly or indirectly through pleasure. Our findings can help impulse-prone consumers mitigate impulse purchases in the digital world while providing economic evidence for live-streaming operators.

## Introduction

The live-streaming economy began in 2019. With the outbreak of COVID-19 in the spring of 2020, there are unexpected financial challenges. Many Chinese residents reduced their outdoor activities and began watching live streaming on mobile phones at home. At the same time, the contactless economy, which coordinates e-commerce via TikTok, Instagram, Facebook, and other platforms, is gaining ground. From e-commerce to modern retail and live spilling, China is at the bleeding edge of e-commerce advancement, all-inclusive. (Hu and Chaudhry) By the end of 2020, the number of users watching live streaming in China had reached 617 million, accounting for 62.4% of total Internet users (Chong et al.). With the rapid development of e-commerce live streaming, it has become the largest live streaming genre, with 388 million users, up 123 million from March 2018. 2020, and accounting for approximately 40% of the entire Internet. Users who place orders in the e-commerce live broadcast industry make up 66.2% of live TV viewers. China's direct e-commerce industry is expected to exceed 1.2 trillion yuan per year, with an annual growth rate of 197% and 0% in the 20th quarter. (艾瑞咨询)

Consumers can view various commodity information in clear and intuitive ways thanks to the interpretation of online influencers in e-commerce live broadcasts. Information that online influencers recommend will somewhat affect consumers' attitudes and purchase intentions. Armstrong and Kotler found that information based on interpersonal interactions has a greater impact on consumers' desire to make additional purchases and purchasing behavior. Its role in product promotion extends beyond traditional advertising (Trusov

et al.), as consumers compare their characteristics to those of online influencers, thereby gaining their trust. In this section, we derive one popular term used exclusively to describe online shopping: "weeding."

"Seeding" means the act of "publicizing the good qualities of a product to induce people to buy it," which simply means the process of recommending something to another person so that the other person will like it (淘宝里种草是什么 | 店查查). So, as the name suggests, online seeding is the act of advertising items by posting or commenting on the internet, such as on various social media, to tell others about the excellence of a product and to make them feel tempted to buy the product. The emergence of online seeding has led to economic growth. This is because nowadays, the frequency and time people play with their cell phones are gradually increasing. So, seeding online is a convenient and fast method of information transfer. People recommend things on various apps. Once people like the product, they will go buy it. As more and more people get seeded, there is a growth in the rate of spending. The rise in spending power leads to a fast-growing economy. Moreover, there are now even links and online stores on various social media outlets to purchase items that bloggers recommend directly. People can tap into the links to buy their favorite items or search and buy directly from online stores. Based on statistics, e-commerce sales will continue to increase from 2021 to 2023. E-commerce sales are expected to grow by 10.4% in 2023. The global e-commerce market is expected to total \$6.3 trillion in 2023 (百度安全验证). Consequently, because buying things becomes easier and faster and there is no complicated process, people's purchase rates have skyrocketed even more.

## Theory

The stimulus-organism-response (S-O-R) model (Figure 1) is rooted in psychology and explains how environmental factors impact an individual's behavior and psychological well-being. Mehrabian and Russell developed the S-O-R theoretical model based on environmental psychology. S stands for the stimulus that affects the subject, and O stands for the organism. Following an external stimulus, a corresponding mental activity occurs, and the letter R stands for the corresponding behavioral response—avoidance, acceptance, or rejection. The S-O-R model is a general model of human behavior that suggests various stimuli influence consumer purchasing behavior. The consumer's body's physiological and psychological components and the outside environment also contribute to this stimulation. A variety of stimuli lead to consumer-generated motivation. They make purchasing decisions based on rewards, then evaluate the goods along with relevant suppliers and channels to complete the process (Wang et al., "Research on the Impact of Live Streaming Marketing by Online Influencers on Consumer Purchasing Intentions"). The study's findings indicate that consumers' internal psychological perceptions and decision-making will be influenced when certain external environmental variables, such as the shopping environment and product attributes, are stimulated. (Li et al.).

Figure 1

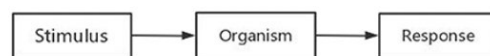


Figure 1. S-O-R model.

Figure 1. S-O-R model

Sales marketing and e-commerce both involve live streaming. Instant orders, live product demos, in-the-moment Q&A, time-limited price promotions, real-time communications, and live streaming services are examples of what online retailers offer (Wongkitrungrueng and Assarut). To increase turnover, companies combine brand marketing and performance marketing to deliver a comprehensive brand story to consumers, introduce emotional and cultural elements to products for immediate feedback, and create a ripple effect for new

products through product demonstrations (Chung and Wei, 2020). Through various types of live streaming, market segmentation and positioning can be adapted to specific needs, and brand loyalty can be gained by establishing personalized features for consumers. These merchants try to build good word-of-mouth about their products because trust determines consumer expectations and behavior. This is because users cannot see or directly test the product. Trust plays an important role in helping consumers reduce perceived risk by accurately identifying and communicating the source and format of online information. It is also essential for increasing customer loyalty and satisfaction (Ahrholdt et al.). As we all know, e-commerce is primarily driven by consumers' subjective belief that once a transaction is completed, the other party will keep their word. However, in a fairy-tale mass information society, consumers' willingness to buy goods may be limited by uncertainties. Reichheld's study indicates that consumers may quickly base their purchasing decisions on trust when they depend on a specific marketer (E-Customer Loyalty: Applying the Traditional Rules of Business for Online Success, ProQuest). Next, Pan et al. confirmed that customers are more likely to buy a good or service if they have greater faith in an online retailer. Cheng highlights that trust can be categorized into competence, honesty, and goodwill. The findings show that trust has a positive impact on consumers' intention to buy.

The extent to which an online influencer can impart knowledge or experience that is pertinent, accurate, and valuable to consumers when they purchase different kinds of stuff is known as their level of expertise. (Kim and Lennon). An online influencer will frequently make numerous polished presentations about their products while you watch their live stream. Customers feel more knowledgeable about a product when presented professionally, which helps save them money and time learning about the product (Tong, 2017). Research by Sokolova and Kéfi, analyzing four beauty makeup bloggers, found that physical attractiveness had no significant impact on purchase intention. At the same time, trustworthiness and engagement were almost social, increasing consumers' purchasing intentions. Therefore, professionalism will also make consumers increasingly trust online influencers, increasing their desire to purchase.

Trust and integrity are important concerns in e-commerce, so how do you increase customer trust in your store? After-sales service is a key focus. Traditional retail shopping is not the same as e-commerce live streaming, and there have been reports of mail-order items arriving that do not match the display. As a result, customers' trust in influencers influences their purchase decisions. Customers are comparatively more likely to purchase if they believe that live-streaming e-commerce offers superior and more reliable post-sale services. (Wang et al., "Research on the Impact of Live Streaming Marketing by Online Influencers on Consumer Purchasing Intentions").

## Methodology

The manipulation of such mentality factors described above exists around us. This part of the research will delve into the methodology of live-streaming e-commerce. To fully decipher this maneuver, three main points come into play.

## Participants and Procedure

One of the first steps in understanding such a method is the demographic affected or targeted in the research (Wang et al., 2022). Data collection for this study was conducted through an online survey, which was hosted on a social media platform. The researchers used snowball sampling to gain participant data. The research used human connections with three researchers (avid consumers of live-streaming platforms), leveraging their familiarity with online influencers. They shared survey links among participants and rapidly spread them within their networks. Additionally, questionnaire links were embedded on various social media platforms, ensuring confidentiality and anonymity. The results show that of the 520 surveys, only 430 responses were deemed valid,

resulting in a response rate of 82.7 percent. The responding demographic is shown to include 206 males and 224 females. The average respondent age was 32.74 years old. Regarding income distribution, 29.8 percent earned less than 5000 yuan, 46.6 percent earned between 5000 and 10,000 yuan, and 23.6 percent earned more than 10,000 yuan. Education levels were also evaluated, with 27.3 percent holding a 3-year college degree or lower, 58.9 percent holding a bachelor's degree, and 13.8 percent holding a master's degree or higher. These data show that the main demographics of these maneuvers are normal people with middle-class income, bachelor's degrees, and the middle-aged working class. (Min et al., 2021) According to studies, hedonic tendencies, customer trust, and perceived value in live streaming will all have a greater impact on these demographics. As demographic variation has proven itself to be a vital change in responses and profit, how to reach a large customer base is very important.

## Measures

To understand how the demographics are more inclined to purchase, a 5-point Likert scale questionnaire was employed. (Wang et al., 2022b): This questionnaire is designed to understand trust and purchase intentions, factors of impulse, and social influence as the two major external factors. The first is social influence. With the popularity of social media (Kowalewicz, 2022), many people now hold the power of purchase right in their pockets, making financial transactions easy to access and overly advertised by both friends and sellers. With e-commerce booming, it is shown that businesses will try to create trends, branding, and characteristics that will attract buyers, and having large quantities of advertisements fosters trust in buyers and is more likely to induce purchases.

These maneuvers are costless and effective; however, the other factor is impulse. Research shows many live-streaming platforms and e-commerce sites are now using the anchoring method, which attracts customers with a low price or discount that catches their attention (Xiaoyi & Zhou, 2020), making customers perform purchases they would not normally proceed with.

By using these methods, impulse buy rates rise and viewer engagement increases. E-commerce companies also try to make purchase platforms easier to navigate and process orders, leaving less time for reconsideration and preventing customers from rethinking their decisions. (Xiao & Nicholson, 2012) This research shows that environmental stimuli and buying attitudes are all major factors e-commerce companies try to manipulate and use. Thus, targeting the right buyers and offering quick and impulse purchases will be very efficient in activating urges and desires to purchase.

## Results

Over the last few years, e-commerce has proven superior to traditional retail and online shopping. Renowned influencers like (Wang et al., 2022c) Li Jiaqi and Luo Yonghao have set remarkable records, with Li's sales reaching 12.13 billion yuan. Providing evidence of the massive success and profitability of e-commerce. Her marketing strategies encourage sales, including professionalism, bargaining power, and post-sale services. People's success, which began through social media and impulse purchases, has reached into people's daily lives and is affecting everyone. (Statista, 2023), with 526 million Chinese consumers using live-streaming commerce platforms in 2023, with signs of continued exponential growth. But profit also comes with incidents of tax evasion, data fraud, and the sale of counterfeit goods. The government argues about the lack of regulations on these commerce platforms and warns everyone about the potential dangers and risks of e-commerce. Also, it urges consumers to increase risk awareness and learn about the relevant dangers of e-commerce.

## Discussion

Based on what we have discussed before about online seeding and strategies to sell products, explain why e-commerce became widespread and why psychological reasons attract customers. We may safely conclude that e-commerce is now important to human life. Online seeding is a type of e-commerce. Nowadays, e-commerce has become popular. This is because it is convenient for both customers and sellers. Hence, e-commerce has had a huge impact and helped society. It brings several benefits. On the business side, e-commerce, in one way or another, allows start-ups, small businesses, and large companies to sell their products on a large scale and reach customers worldwide, which means it helps companies increase their customer base and sales. On the customers' side, e-commerce offers an easy way to purchase stuff. Convenient purchase processes help people save time for more important work.

The rapid growth of e-commerce accelerates society's economic growth. In 2021, U.S. small- and medium-sized businesses selling in Amazon stores exported over 225 million products, and international sales reached a whopping two billion dollars. The lower operating costs help more people set up their businesses. Therefore, there are fewer jobless people since e-commerce gives people more job opportunities. Creating and maintaining a website is cheaper than running a traditional brick-and-mortar store. You don't have to rent retail space, hire a team of employees, or own a large warehouse to build an e-commerce business channel. All of these benefits result in lower overhead. You don't have to pay rent or worry about home maintenance. There is no need for monitoring or staffing, like in a physical store. Website-building tools and services can be used to set up an e-commerce store quickly, or you can stop building a website and publish your brand on social media or in stores like Amazon. Many businesses sell online even though e-commerce has challenges, including limited face-to-face interaction, technical difficulties, and data security. Nevertheless, it has become an indispensable way of doing business in society (Team, "What Is E-commerce? Definition, Types, Advantages, and Disadvantages").

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## Reference

- Ahrholdt, Dennis, et al., "Enhancing Loyalty: When Improving Consumer Satisfaction and Delight Matters." *Journal of Business Research*, vol. 94, Jan. 2019, pp. 18–27. <https://doi.org/10.1016/j.jbusres.2018.08.040>.
- Cheng, Z. (2013). *Research on the Influence of Network Interaction on Purchase Intention and Trust Guarantee Mechanisms in Social Networks* Doctoral Dissertation. Beijing University of Posts and Telecommunications.
- Chong, Alain Yee–Loong, et al. "The Role of Social Media in Enhancing Guanxi and Perceived Effectiveness of E-commerce Institutional Mechanisms in Online Marketplace." *Information & Management*, vol. 55, no. 5, July 2018, pp. 621–32. <https://doi.org/10.1016/j.im.2018.01.003>.
- Chung, Yongkuk, and Xin Wei. "Effects of Perceived Quality of TikTok on User Satisfaction and Continuance Intention: And the Role of Commercial Viability." *The Journal of the Korea Contents Association*, vol. 20, no. 6, Jan. 2020, pp. 77–89. <https://doi.org/10.5392/jkca.2020.20.06.077>.

*E-customer Loyalty - Applying the Traditional Rules of Business for Online Success - ProQuest.*  
[www.proquest.com/openview/3ed3d29e37be31157505ffd673641fd0/1?pq-origsite=gscholar&cbl=31956](http://www.proquest.com/openview/3ed3d29e37be31157505ffd673641fd0/1?pq-origsite=gscholar&cbl=31956).

Hu, Mingxing, and Sohail S. Chaudhry. "Enhancing Consumer Engagement in E-commerce Live Streaming via Relational Bonds." *Internet Research*, vol. 30, no. 3, Mar. 2020, pp. 1019–41.  
<https://doi.org/10.1108/intr-03-2019-0082>.

艾瑞咨询. [www.iresearch.com.cn/Detail/report?id=3841andisfree%3D0](http://www.iresearch.com.cn/Detail/report?id=3841andisfree%3D0).

Kim, Jiyoung, and Sharron J. Lennon. "Effects of Reputation and Website Quality on Online Consumers' Emotion, Perceived Risk and Purchase Intention." *Journal of Research in Interactive Marketing*, vol. 7, no. 1, Mar. 2013, pp. 33–56. <https://doi.org/10.1108/17505931311316734>.

Kotler, P. and Armstrong, G. (2012) *Principles of Marketing*. 14th Edition, Pearson Education Limited, Essex, England. - References - Scientific Research Publishing.  
[www.scirp.org/reference/ReferencesPapers?ReferenceID=1581305](http://www.scirp.org/reference/ReferencesPapers?ReferenceID=1581305).

Kowalewicz, R. (2022, April 28). How social media impacts consumer buying. *Forbes*.  
<https://www.forbes.com/sites/forbesagencycouncil/2022/04/28/how-social-media-impacts-consumer-buying/?sh=5d275bf6337d>

Li, Jie, et al. "What Influences Consumers' Intention to Purchase Innovative Products: Evidence From China." *Frontiers in Psychology*, vol. 13, Mar. 2022, <https://doi.org/10.3389/fpsyg.2022.838244>.

Mehrabian, Albert, and James A. Russell. "A Verbal Measure of Information Rate for Studies in Environmental Psychology." *Environment and Behavior*, vol. 6, no. 2, June 1974, pp. 233–52.  
<https://doi.org/10.1177/001391657400600205>.

Min, Z., Huang, J., Wu, K., Huang, X., Kong, N., & Campy, K. S. (2021). Characterizing Chinese consumers' intention to use live e-commerce shopping. *Technology in Society*, 67, 101767.  
<https://doi.org/10.1016/j.techsoc.2021.101767>

Pan, Y., Zhang, X., and Gao, L. (2010). Research on the determinants of purchasing intention in online shopping—from the perspective of trust and perceived risk. *China Indus. Econ.* 7, 115–124. doi: 10.19581/j.cnki.ciejournal.2010.07.012

Sokolova, Karina, and Hajer Kéfi. "Instagram and YouTube Bloggers Promote It, Why Should I Buy? How Credibility and Parasocial Interaction Influence Purchase Intentions." *Journal of Retailing and Consumer Services*, vol. 53, Mar. 2020, p. 101742.  
<https://doi.org/10.1016/j.jretconser.2019.01.011>.

Statista. (2023, September 14). Share of live commerce users in China 2023.  
<https://www.statista.com/statistics/1295800/china-share-of-live-commerce-users/#:~:text=As%20of%20June%202023%2C%20around,of%20the%20total%20internet%20users>

Tong, Jinhua. "A study on the effect of web live broadcast on consumers' willingness to purchase." *Open Journal of Business and Management* 5.02 (2017): 280.

Trusov, Michael, et al. "Effects of Word-of-Mouth Versus Traditional Marketing: Findings From an Internet Social Networking Site." *Journal of Marketing*, vol. 73, no. 5, Sept. 2009, pp. 90–102. <https://doi.org/10.1509/jmkg.73.5.90>.

Wang, Xueli, et al. "Research on the Impact of Live Streaming Marketing by Online Influencers on Consumer Purchasing Intentions." *Frontiers in Psychology*, vol. 13, Nov. 2022, <https://doi.org/10.3389/fpsyg.2022.1021256>.

Wongkitrungrueng, Apiradee, and Nuttapol Assarut. "The Role of Live Streaming in Building Consumer Trust and Engagement With Social Commerce Sellers." *Journal of Business Research*, vol. 117, Sept. 2020, pp. 543–56. <https://doi.org/10.1016/j.jbusres.2018.08.032>.

Wang, X., Aisihaer, N., & Aihemaiti, A. (2022). Research on the impact of live streaming marketing by online influencers on consumer purchasing intentions. *Frontiers in Psychology*, 13. <https://doi.org/10.3389/fpsyg.2022.1021256>

Xiaoyi, H., & Zhou, X. (2020). Impacts of E-Commerce anchor attributes on consumers' willingness to buy online: Research based on the Grounded Theory. *Foreign Economics & Management*, 42(10), 62–75. <https://doi.org/10.16538/j.cnki.fem.20200820.301>

Xiao, S., & Nicholson, M. (2012). A Multidisciplinary Cognitive Behavioural Framework of Impulse Buying: A Systematic Review of the Literature. *International Journal of Management Reviews*, 15(3), 333–356. <https://doi.org/10.1111/j.1468-2370.2012.00345.x>

百度安全验证. [baijiahao.baidu.com/s?id=1757705632268288065&wfr=spider&for=pc](http://baijiahao.baidu.com/s?id=1757705632268288065&wfr=spider&for=pc).

淘宝里种草是什么 | 店查查. [www.dianchacha.com/news/info/id/5624](http://www.dianchacha.com/news/info/id/5624).

"What Is Ecommerce? Definition, Types, Advantages, and Disadvantages."  
<https://sell.amazon.com/learn/what-is-ecommerce#:~:text=You%20can%20use%20ecommerce%20channels,Store%20or%20grow%20established%20brands>, [sell.amazon.com/learn/what-is-ecommerce#:~:text=You%20can%20use%20ecommerce%20channels,store%20or%20grow%20established%20brands](https://sell.amazon.com/learn/what-is-ecommerce#:~:text=You%20can%20use%20ecommerce%20channels,store%20or%20grow%20established%20brands).