

# The Evolution of E-Commerce: From Traditional E-Commerce to Live Streaming Sales

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**Abstract.** In recent years, the rapid development of internet technology and social media platforms has led to significant transformations in e-commerce. Live streaming sales have gradually become a crucial sales model. This paper systematically analyzes the evolution from traditional e-commerce to live streaming sales, exploring key factors of this emerging model and its impact on consumer behavior. Through case studies, this research reveals how live streaming enhances consumers' purchase intentions and brand loyalty through real-time interaction and emotional connection. The findings indicate that while live streaming demonstrates remarkable short-term sales effectiveness, it also faces market competition, product quality, and service issues. The paper also discusses future trends in live streaming, such as integrating augmented reality (AR) and virtual reality (VR) to create more immersive shopping experiences, and data analytics for personalized marketing. Strategic recommendations are proposed to help businesses excel in a competitive market, including enhancing real-time consumer interaction, maintaining product quality, and building strong brand trust. These insights aim to provide a comprehensive understanding of the dynamic landscape of e-commerce and the pivotal role of live streaming in shaping future consumer trends.

## 1 Introduction

With the rapid development of internet technology and social media platforms, e-commerce has become an indispensable part of daily life. In recent years, influencer live streaming sales have emerged as an innovative sales model, quickly altering consumers' shopping habits and decision-making processes. Studies indicate that influencers, through their personal charm and social interaction, significantly increase product sales and profoundly impact consumer purchasing behavior. This influence is evident not only in sales data but also in transforming how consumers interact with brands, thereby enhancing brand market performance.

However, there is widespread debate regarding the long-term impact and market adaptability of influencer live streaming sales. Different consumer groups have raised concerns about the sustainability and potential market saturation of this model. Therefore, exploring the role of influencers in live streaming sales and their influence on consumer purchase decisions is crucial for the advancement of the e-commerce industry.

This study delves into the core role of influencers in e-commerce by analyzing specific case studies and related academic papers. It systematically evaluates how influencers build effective interactions with consumers through live streaming, thereby gaining trust and social recognition. Research shows that influencers significantly enhance audience engagement and brand loyalty through their personal charm and professional performance. This direct interaction not only boosts

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consumers' purchase intentions but also optimizes their shopping experience, proving the efficiency and practicality of the influencer live streaming sales model in the current e-commerce environment.

This research significantly enhances the public's understanding of the role of influencers in e-commerce, especially in the context of live streaming sales. By deeply analyzing the interaction mechanisms between influencers and consumers, it reveals how influencers effectively utilize their influence to shape consumer purchasing decisions. This finding directly responds to the research questions posed in the introduction and supplements the literature review's discussion on influencer impact.

Furthermore, this study validates the practical application of theoretical research through specific case analyses (e.g., analyzing specific influencer live streaming cases), particularly how trust and social recognition are built through live streaming sales.

## **2 Historical background and current analysis**

### **2.1 Evolution of E-commerce**

E-commerce, defined as any commercial activity conducted by consumers using network communication technology, has a history that dates back to the 1970s. It originated with attempts at electronic data interchange between companies. By the 1980s, with the proliferation of email, businesses began utilizing the Internet for commercial communication and information processing. The rise of online retailers such as Amazon and eBay in the 1990s marked the mainstream adoption of the Business-to-Consumer (B2C) model. E-commerce transformed how consumers access information and purchase goods, enhancing market transparency and creating new commercial opportunities. This model not only provided convenience for consumers but also expanded market opportunities for businesses [1].

In the late 2010s, the rise of social media brought new opportunities for e-commerce development, particularly with the advent of short video and live streaming technologies. Platforms like Taobao, Tiktok, and Kuaishou launched live streaming features, leveraging the personal influence of internet celebrities and hosts to showcase products in real-time and interact with consumers. The global outbreak of COVID-19 in 2019 further accelerated this shopping method, as live streaming sales met consumers' needs for personalized and interactive shopping experiences, rapidly becoming a mainstream shopping model. This mode not only enriched the shopping experience for consumers but also opened new marketing channels for businesses.

Traditional e-commerce relies on consumers actively searching for product information, whereas live streaming sales attract consumers more directly through real-time demonstrations and interactions by influencers. Additionally, live streaming sales create a sense of urgency with limited-time discounts and exclusive offers, stimulating instant purchases. This combination of real-time engagement and entertainment makes the shopping experience more attractive to consumers. However, the high interactivity and fast pace of live streaming sales may lead to impulsive purchases or insufficient comparison of alternative products. While this immediacy and entertainment enhance the shopping experience, they also increase the risk of impulsive decision-making by consumers.

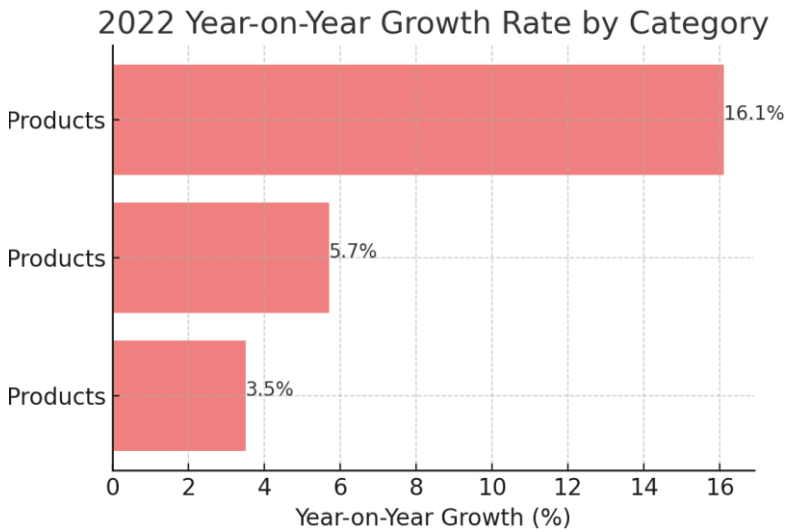
### **2.2 Development of live streaming sales**

The emergence of live streaming sales as a new model has significantly impacted consumer purchasing behavior and businesses. Through live streaming, companies and merchants can communicate efficiently with consumers, convey corporate culture and brand values, and reduce advertising and marketing costs. Additionally, businesses can quickly gather consumer feedback through live streaming and adjust market strategies promptly to meet changing market demands.

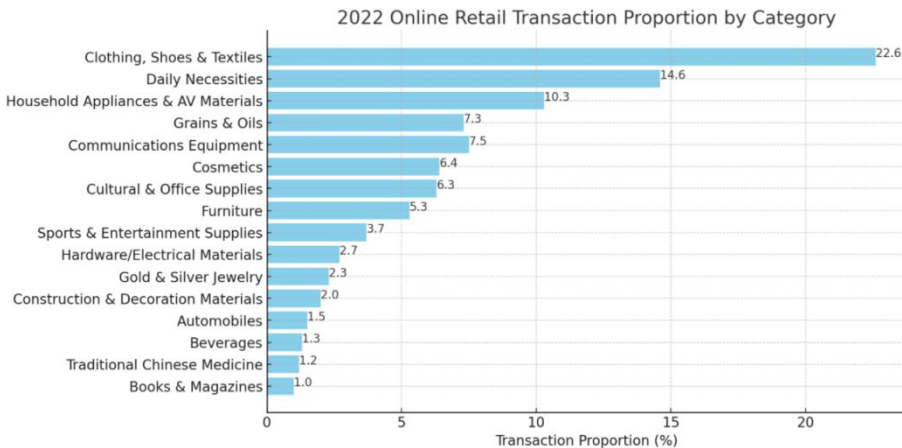
This model increases the market responsiveness and customer satisfaction of companies and merchants, thereby enhancing their competitiveness.

According to data from the National Bureau of Statistics, China's electronic e-commerce transactions saw significant growth, surpassing 4 trillion yuan for the first time in 2021, and reaching new heights the following year. Today, the scale of China's e-commerce market continues to expand, making e-commerce a vital driving force for the country's economic transformation and upgrading [1]. In the first three quarters of 2023, the national online retail sales reached 10.8 trillion yuan, a year-on-year increase of 11.6% [2]. This not only reflects the importance of online shopping to consumers but also highlights the significant role of the digital economy in shaping the new retail landscape of the modern era (see Figure 1 and Figure 2).

As the model continues to evolve, emerging trends such as intelligent shopping experiences and personalized recommendation services further enhance and diversify the possibilities of online shopping, expanding new niche markets.



**Fig. 1.** 2022 Year-on-Year Growth Rate by Category [1]



**Fig. 2.** 2022 Online Retail Transaction Proportion by Category [2]

However, the main reason live streaming sales became a mainstream shopping method was the global outbreak of COVID-19 in 2019, which restricted traditional offline retail industries. In this context, the e-commerce industry played a crucial role in maintaining the supply of essential goods.

With movement restrictions in place, many people turned to online channels to meet their shopping needs, including food, daily necessities, and entertainment products. This shift gradually changed consumers' traditional shopping habits. As live streaming sales became a mainstream shopping method, the impact on traditional e-commerce intensified, making market competition increasingly fierce [3].

### **2.3 Comparison between live streaming sales and traditional E-commerce**

Compared to traditional e-commerce, live streaming sales differ significantly in terms of consumer shopping experience, sales effectiveness, and business models. In traditional e-commerce platforms such as JD.com, Taobao, and Pinduoduo, consumers search for product information by entering keywords, browsing the relevant product details on apps, and then make their purchases. In contrast, live streaming sales involve real-time video demonstrations of products by professional hosts who provide live commentary and recommendations. Consumers can interact instantly with the hosts during the live stream, ask questions, and express their purchasing intentions, thereby receiving more personalized service. The immediacy and interactivity of live streaming make consumers more susceptible to the host's influence and recommendations, which facilitates the purchasing decision. Traditional e-commerce, on the other hand, requires consumers to actively search for and filter product information, making the decision-making process relatively longer. For example, consumers with high cognitive needs might spend more time recalling and exploring additional information to aid their final purchase decisions. They tend to process more external information and advertisements and remember them better during the purchase decision process.

First, the live streaming sales model provides a temporary platform for real-time interaction and instant feedback with consumers, allowing them to obtain product information directly from sellers. In contrast, traditional e-commerce can only convey product descriptions, user reviews, and Q&A. Even with detailed information, if new questions arise, sellers and platforms cannot respond to consumers' queries promptly.

Second, from the perspective of purchase motivation, live streaming sales stimulate consumers' desire and motivation to buy through influencer recommendations and promotional activities such as limited-time discounts and exclusive offers. Emotional drives, such as the influencer's charisma and persuasive language, can create a sense of urgency and highlight the gap between the consumer's current state and their ideal state, thereby triggering the desire to purchase. This emotional-driven sales strategy is highly effective in live streaming. In contrast, traditional e-commerce relies more on pre-set marketing strategies such as holiday promotions and membership discounts. In such cases, consumers are not actively exposed to stimuli, making their purchasing behavior more planned and rational. Additionally, the functional value of products is a primary determinant of purchase intentions in live streaming e-commerce. The functional value is associated with the unique features and advantages of the product as demonstrated during the live stream. When customers have a comprehensive understanding of the product, or when the host can immediately address their specific questions or concerns, they are more likely to perceive the product's functional value and make a purchase decision. These fulfilled expectations and resolved doubts make customers more willing to buy these products [4].

However, each model has its drawbacks. For example, in live streaming sales, the primary risk is an increase in impulsive purchases. Due to the high interactivity and instant promotions during live streams, consumers may make impulsive purchases of products or services they do not need, leading to a higher rate of returns and exchanges. Additionally, live streaming sales may provide limited product information and fail to fully showcase product details due to the fast-paced nature of the format. This can prevent consumers from thoroughly researching and comparing alternative products. Consequently, live streaming sales might lead to a lack of in-depth comparison of products and services by consumers [5].

## **2.4 Consumer behavior and advantages of live streaming sales**

According to Nielsen's online shopping report, 47% of consumers visit physical stores to check products before making an online purchase, indicating that the need for visually inspecting products still exists [6]. Additionally, 70% of consumers are influenced by social media, which alters their online shopping decisions. Combining this need to "see products" with the influence of internet celebrities, live streaming sales by influencers began in 2016 and saw rapid growth by 2018.

Whether it is merchants, internet celebrities, or stars, they use visual and dynamic methods to demonstrate products and share user experiences, making viewers feel like they are shopping in a store. Users spend a long time in a single live stream, similar to chatting with a salesperson or friends in a physical store. Low-traffic live streams are akin to small street shops, while high-traffic live streams resemble bustling marketplaces [7].

Online shopping, facilitated through Internet channels, fulfills not only people's transactional needs but also their companionship needs. This form of shopping has not altered the fundamental needs of consumers but has met them in new ways. The trend of creating immersive online shopping experiences is becoming increasingly evident. Spending time, enhancing interaction, and discovering enjoyment have become key experiences for consumers during live stream shopping [8,9]. Additionally, new products, new consumer demographics, and new consumption content continually emerge, propelling significant advancements in this sector.

## **2.5 Major challenges of influencer live streaming sales**

The competition in the live streaming e-commerce market is becoming increasingly intense, with various companies and hosts continuously joining the fray, leading to a more fragmented market. Large enterprises and top influencers leverage their influence and resources to gain a competitive edge, making it difficult for startups and small operators to survive. In this environment, market share and user retention rates for companies and hosts become crucial indicators, necessitating differentiated strategies to ensure competitiveness. As the diversity of live streaming platforms and hosts increases, acquiring new users and maintaining customer loyalty becomes more challenging. Companies and hosts must precisely target their audience, provide unique live content, and offer personalized services to enhance user engagement and retention.

Consumer demands for live streaming content are constantly evolving, prompting companies and hosts to innovate continuously to meet user expectations. The channels for live streaming sales are also becoming more diverse, expanding from traditional social media platforms to emerging e-commerce platforms and vertical communities. Companies need to balance the novelty of content with the diversity of platforms to achieve greater marketing efficiency. In an increasingly competitive market, brand image and trustworthiness become the core competitive advantages for companies and hosts. Some false advertising or quality issues can quickly erode consumer trust in the brand, leading to distrust and a decline in sales.

Companies and hosts need to invest continuous effort and strategic adjustments to establish a solid brand image and consumer trust to ensure customer loyalty. The policies and operational requirements of different live streaming platforms vary, so companies and hosts need to optimize their operational strategies according to platform rules to ensure more traffic and revenue. As platform commissions, advertising fees, and other costs increase, profitability becomes more challenging, putting additional pressure on companies and hosts.

In the commercialization process of live streaming sales, many live streams fail to strictly enforce product selection processes, resulting in inconsistent content quality and inadequate after-sales service to meet fan needs [10]. Some hosts, in order to increase sales or earn commissions, exaggerate product benefits or provide false advertising, misleading consumers in their shopping experience. Common product and service quality challenges include selling products that have not undergone rigorous inspection, which often do not match the promotion. For example, product defects or quality issues may arise, causing consumers to receive items that do not meet their expectations. Since products sold in live streams are usually recommended by the hosts, if the

quality does not meet consumer expectations, trust in live shopping will diminish. Furthermore, the transparency of product origin, ingredients, or certifications is often insufficient, increasing the difficulty for consumers to discern authenticity [11].

Regarding service quality, the main issue is an inadequate after-sales service system that cannot effectively resolve consumer complaints or handle returns and exchanges. Consumers often receive special offers or limited-time discounts during live shopping, but these offers are difficult to match during actual returns, leading to complicated and inefficient after-sales processes. Additionally, some live streaming platforms lack sufficient after-sales customer service teams, resulting in delayed responses or inadequate problem resolution for consumer feedback.

Lastly, in an effort to attract consumer attention and stimulate purchases, some hosts overly emphasize product benefits, using exaggerated promotional tactics to induce impulsive purchases. However, the actual product performance may fail to meet their promises. This false advertising may include exaggerating product efficacy, cherry-picking favorable aspects, or using "limited-time offers" to create urgency and hasten purchase decisions. Furthermore, some hosts lack professional knowledge about the product's performance or usage, and cannot accurately answer consumer questions, further reducing the credibility of the product.

### **3 Future trends and prospects**

#### **3.1 Future development of the industry**

The future development of live streaming sales and influencer marketing is expected to continue expanding its influence. This trend is primarily driven by consumer demand for more interactive and personalized shopping experiences. With advancements in technology, such as AR and VR, live streaming sales may offer more immersive and dynamic shopping experiences. Additionally, the application of data analytics and artificial intelligence will enable more precise personalized marketing, helping brands better understand and meet consumer needs. Consequently, live streaming sales and influencer marketing are anticipated to remain significant growth areas in e-commerce and digital marketing.

Currently, live streaming sales are predominantly popular in the Asian market, especially in China. In the future, this model is expected to expand to more global regions. With the development of global e-commerce platforms and improvements in cross-border payment technologies, live streaming sales can attract global consumers by offering multi-language broadcasts and customized content. Furthermore, data analytics can help brands adjust their marketing strategies in real-time, optimizing live stream content and interaction based on audience feedback.

The live streaming sales model will no longer be confined to traditional consumer goods but will also expand into other sectors such as education, health, and entertainment. For example, fitness coaches can sell fitness courses and related products through live teaching, and artists can sell artworks and interact with viewers through live streaming. As technology advances, the production quality of live streaming content is expected to improve significantly. Using higher quality video and audio equipment, combined with professional post-production editing, can make live streaming content more attractive and professional, thereby enhancing user viewing experience and purchase intentions.

#### **3.2 Potential changes in consumer behavior**

First, consumers will increasingly expect real-time interaction with brands. Technologies such as AR and VR enable consumers to experience products more deeply, such as virtually trying on clothes or testing products before purchasing. This enhanced interactivity may raise consumers' expectations for their shopping experiences, leading them to favor brands that offer highly interactive experiences.



Second, the demand for personalization and customization will increase. The application of data analytics and artificial intelligence allows brands to better understand consumer preferences and behavior patterns, thereby providing more personalized products and services. Consumers may gradually become accustomed to and expect shopping recommendations that are fully tailored to their personal preferences.

Additionally, consumers are becoming increasingly concerned about product origins and brand social responsibility. Technological advancements make it easier for consumers to access information about product sustainability, potentially driving them to prefer brands that implement sustainable practices and exhibit high ethical standards.

## 4 Conclusion

This study systematically explores the evolution of live streaming e-commerce and its significant role in the field of e-commerce. The following key conclusions are drawn by analyzing the market background, development process, main challenges, and future trends of live streaming e-commerce.

First, live streaming e-commerce greatly enhances the shopping experience of users through real-time interaction and instant feedback, quickly becoming an important sales model in the e-commerce field. However, as more enterprises and individuals enter the live streaming e-commerce sector, market competition has intensified. Large enterprises and top influencers use their influence and resources to dominate the competition, making it difficult for startups and small operators to survive. Therefore, establishing a solid brand image and consumer trust is crucial for companies and influencers to succeed in a competitive market. Some false advertising or quality issues can quickly undermine consumer trust in the brand, leading to a decline in sales.

This study enriches the theoretical understanding of the development and impact of live streaming e-commerce, and provides empirical support for practical operations. By revealing the success factors and challenges of live streaming e-commerce, this paper offers feasible strategic recommendations for businesses and influencers, helping them achieve success in a highly competitive market. Additionally, this study provides valuable insights into future trends in e-commerce. Despite the achievements of this research, there are still some limitations. Firstly, this study focuses primarily on the Chinese market. Future research could expand to other countries and regions to compare the development of live streaming e-commerce in different markets. Secondly, as technology continues to advance, future research could further explore the application of emerging technologies such as artificial intelligence and virtual reality in live streaming e-commerce.

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