

Community Commitment in Live Streaming: An Ethnography Analysis

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Abstract: As a representative form of contemporary social behavior, live streaming has gained widespread popularity among consumers, serving not only as a shopping channel but also as a platform for social interaction and knowledge exchange. While previous studies have primarily focused on the impact of real-time interaction on consumer purchasing behavior, this study shifts the lens to explore its role in fostering community commitment. Drawing on social exchange theory and utilizing in-depth interviews, the study finds that real-time interactions between streamers and viewers — regarded as a form of social affordance — indirectly enhance consumers' sense of belonging and commitment to the livestream community by enriching their knowledge, skills, and perceived value gained during the streaming experience.

1. Introduction

In the current global e-commerce landscape, live streaming e-commerce is becoming increasingly valuable. Many established e-commerce platforms are actively promoting the development and integration of live streaming e-commerce. In China, representative live streaming e-commerce platforms include Taobao Live, Douyin E-Commerce, Kuaishou E-Commerce, and JD Live. International platforms such as Amazon Live, Facebook Shop, Instagram Live Shopping, Twitch Shopping and more. All of them exemplify this trend. The immense growth potential of live streaming e-commerce is evident.

These platforms inherently function as content-sharing media, where streamers convey information to users through performances and commentary. Initially, platforms did not require users to provide explicit information about their online attributes. Instead, they employed big data algorithms to infer users' preferences and habits. The longer users engage with the platform, the more data they feed into these algorithms, leading to increasingly personalized content recommendations. Over time, this results in a user lock-in effect.

In the live streaming e-commerce interface, platforms offer multiple social mechanisms that facilitate interaction between users and streamers, such as live chat (bullet comments), emoji reactions, virtual gifting etc. Contemporary live streaming technology fosters a more engaging, immersive, and supportive environment, thereby increasing users' emphasis on rapid and intuitive interactions^[1]. Through guided communication from streamers, users engage in social learning to familiarize themselves with platform functionalities (liking the stream, sending virtual gifts, following the streamer, participating in live video calls and etc.) or acquire other knowledge and skills. These social mechanisms present affordances to users. Within virtual live streaming rooms, streamers deliver compelling real-time presentations, influencing users through their performances and emotions. The presence of social affordances further enhances user engagement, prompting responses such as sending comments, emojis, likes, and virtual gifts. Streamers, in turn, respond to user interactions in real time by answering questions, performing requested content, and expressing gratitude, thereby fostering reciprocal engagement.

Through these interactions, users and streamers establish a perceived close relationship.

However, unlike real-world social connections, this interaction in virtual spaces is classified as a parasocial interaction — a perceived relationship that emerges from continuous engagement with content creators due to emotional attachment^[2]. This process inherently involves social exchange phenomena: streamers provide users with informational content, while users reciprocate through monetary and non-monetary means. Over time, this reciprocal engagement fosters a sense of community responsibility among users. Given the highly competitive nature of e-commerce platforms, understanding the factors that drive users to become integral members of a platform's social network is a key focus of this study. Thus, understanding the underlying factors that drive users to become fixed members of a platform's social network is a key focus of this study.

Building upon existing research, this study expands the application boundaries of social exchange theory to better accommodate the dynamic and complex nature of modern social interactions. Furthermore, this study advances research on user behavior in social platforms, facilitating a more precise understanding of behavioral patterns and psychological needs in these digital environments.

2. Literature Review

2.1. Live Streaming

Social live-streaming is an online interactive format that has rapidly developed in recent years. It allows for real-time audio and video transmission through internet platforms and enables users to interact with streamers and other viewers. Unlike traditional one-way video streaming, social live-streaming not only satisfies viewers' entertainment needs but also provides opportunities for social interaction, creating a new type of digital social space^[3]. On these platforms, users are not merely passive content receivers; they can establish connections with streamers and other viewers through instant comments, virtual gifts, and discussions, forming a bidirectional interactive social atmosphere.

The main characteristics of social live-streaming are its real-time nature and interactivity. Through these features, live-streaming platforms offer users an opportunity to connect, express themselves, and gain social recognition in a virtual space. While watching a live stream, viewers can interact with the streamer and receive real-time feedback. This interaction is not limited to content consumption but extends to emotional communication and social engagement^[4]. As platform features continue to evolve, users can participate in the creation and dissemination of live-streaming content through virtual gifts, likes, comments, etc., thereby influencing the social atmosphere and community engagement on the platform.

Furthermore, social live-streaming has become a new avenue for business monetization. Many live-streaming platforms have introduced e-commerce features, advertising, and the sale of virtual gifts, creating multiple profit models^[5]. The widespread application of social live-streaming has gone beyond entertainment and social realms. Represented by platforms such as Douyin, China's social live-streaming platforms not only dominate the domestic market but are also actively expanding into international markets. Through real-time interaction, virtual gifts, and e-commerce features, Douyin has successfully attracted a large number of users, enhancing the platform's social capabilities and fostering deeper connections between users and streamers. This interaction not only strengthens users' sense of participation and social identity but also brings new business opportunities to the platform, such as live-streaming e-commerce and brand promotion^[3]. As the global market continues to expand, Douyin is steadily enhancing its competitive edge in social live-streaming, becoming an influential force in the global social interaction and entertainment sectors.

2.2. Social Affordances

Social Affordances refer to the possibilities for action that social media platforms provide to users, which are determined by the platform's technical characteristics and the social environment of the users^[6]. The affordance theory proposed by Gibson suggests that the action possibilities perceived by users are jointly determined by technological features and the social background of the

users^[7].

The rise of social media has provided a new research context for social affordances. Social media platforms offer users rich social affordances through their technical design and user interactions. Treem and Leonardi proposed four types of affordances: visibility, editability, persistence, and association. These affordances not only influence users' social behaviors but also change the ways in which communication and knowledge sharing occur within organizations^[6].

Social affordances are widely used to explain how users interact, collaborate, and share knowledge through platforms. Majchrzak et al. studied the knowledge-sharing mechanisms in enterprise social media and proposed affordances such as “metavoicing”, “triggered attending”, “network-informed associating” and “generative role-taking”. These affordances provide users with different ways of participation, thereby influencing the effectiveness of knowledge sharing^[8].

Douyin live-streaming, as a typical social media platform, offers users a rich set of social affordances. The design of the live-stream interface, interactive features (such as likes, comments, and tipping), and the behavior of the streamers all provide users with various possibilities for interaction. For example, the like button is not only a physical object but also offers users the possibility of expressing support and engaging in interactions. This affordance depends on the social norms of the platform and the cultural background of its users. By perceiving these social affordances, users can participate in social interactions within the live stream, forming complex social behaviors.

2.3. Parasocial Interaction

The exploration of parasocial interaction in the context of live streaming, particularly on platforms like Douyin (TikTok), has garnered significant attention due to its implications for media consumption, audience engagement, and social dynamics. The concept of parasocial interaction originally emerged in the mid-20th century, describing the one-sided relationships viewers form with media personalities who are unaware of their audience's existence. This traditional view has evolved significantly with the rise of interactive online platforms, where the potential for direct audience interaction redefines these relationships as “1.5-way” interactions, particularly observable in live streaming environments such as Twitch^[9].

In live commerce, Huang and Ma propose the concept of “parasocial guanxi”, illustrating how emotional and trust-based relationships mitigate dissatisfaction and influence consumer behavior^[10]. Similarly, Quan et al. examine parasocial interaction's economic impact, identifying social and task attraction as key factors shaping consumer purchase intentions^[11].

In gaming live streaming, Lim et al. use social cognitive theory to show that “wishful identification” and emotional engagement drive parasocial relationship formation and viewer loyalty^[12]. Deng et al. analyze travel live streaming through a “More-than-Human Netnography” approach, revealing how technology enhances parasocial interaction, leading to either positive parasocial familiarity or conflict^[13].

The role of parasocial interaction in live e-commerce is further explored by Rungruangjit, who integrates source credibility and match-up hypotheses, showing how influencer traits and product congruence influence consumer decisions^[14]. Meanwhile, Hou et al. examine virtual gift-giving in entertainment live streams, demonstrating how cognitive absorption and immersive experiences foster stronger parasocial interaction and parasocial relationship, driving audience participation and spending^[15].

2.4. Social Exchange Theory

Social Exchange Theory (SET), which posits that human interactions are driven by cost-benefit analyses and reciprocity. Applied to Douyin live streaming, the theory helps explain why viewers purchase and send virtual gifts, interact with streamers, and participate in online communities. Key SET concepts such as reciprocity, trust, and perceived value are central to understanding viewer engagement in live streaming environments^[2].

Virtual gifting is one of the primary monetization methods for live streaming platforms, with

users voluntarily sending digital gifts to streamers as a form of social and economic exchange^[16]. Research indicates that motivations for virtual gifting include status-seeking, entertainment value, emotional gratification, and a desire for social recognition^[17]. The act of gifting can be understood as a reciprocal exchange, where viewers expect acknowledgement or preferential treatment from streamers^[18].

Besides, reciprocity in Douyin live streaming manifests through streamer responses, exclusive content, and personalized interactions with high-value gifters^[19]. This reciprocal exchange strengthen community ties and enhances social capital within the platform. Additionally, some studies highlight the influence of cultural factors on gifting behavior, noting that Chinese viewers often perceive gifting as a means to establish and reinforce social hierarchies^[20].

From the aspect of user-streamer interaction, in term of information sharing, streamers provide users with information about products, services and entertainments, while users share their opinions and feedback with streamers. This exchange of information is a form of social exchange that benefits both parties. It is mentioned that streamers can use user feedback to improve their content and better meet the needs of users^[2]. In term of entertaining experience, streamers also offer users entertaining content, such as live performances, games and jokes, in exchange of users' attention and engagement. Users, in turn, provide feedback and interact with streamers to enhance the entertainment experience. This mutual exchange of entertainment resources contributes to the success of live streaming.

3. Data Collection

This study uses in-depth interviews to analyze the users' behavior patterns and ideas about Douyin live streaming from their daily habits and behaviors of watching live streaming, in order to preliminarily screen out the factors that may affect the community commitment of users. The interviewees are shown in Table 1.

The interviews were conducted in Chinese through Tencent Meeting in group form. The in-depth interviews were done within 11 days, starting on January 25, 2025, and ended on February 3, 2025. A total of 10 interviewees participated, with their descriptive statistics presented in the table. During the interviews, audio recordings were taken simultaneously and later transcribed into text, resulting in a verbatim transcript of approximately 21,000 Chinese words.

Table 1 List of interviewees.

No.	Gender	Age	Occupation
1	Male	23	Management trainee
2	Female	25	E-commerce operator
3	Female	23	Student
4	Male	28	Fitness coach
5	Male	28	Fitness coach
6	Female	24	Student
7	Female	24	Student
8	Male	26	Student
9	Female	26	University lecturer
10	Female	20	Student

4. Data Analysis

This study employs NVivo 15 for annotation and analysis of interview transcripts. The analysis is conducted through two stages: axial coding, and selective coding.

First, axial coding. This procedure involves naming and categorizing similar events and situations to form categories, resulting in a list of coding labels and categories, as shown in Figure 1.

Name	Files	References							
1. Opportunity to get into live streaming	6	9	2. Live streaming watching behavior	6	101	3. Gain from live streaming	6	24	
1.1 Experienced before	6	9	2.1 Type of content	6	17	3.1 Knowledge or skills acquired	4	6	
Friends & family	4	4	2.2 Characteristics of live streaming	6	14	Antique appraisal skill	1	1	
Leisure time	4	4	2.3 Social rules or mechanisms of live streaming	6	14	Exam skill	1	1	
Self learning	1	1	2.4 Factors influencing live streaming choice	6	17	Fitness techniques	1	1	
2. Live streaming watching behavior	6	101	Personal interest	5	8	Gaming strategies	1	1	
2.1 Type of content	6	17	Recommendation by others	1	1	Product usage	1	1	
Antique appraisal live streaming	1	1	Reputation of product	2	2	Streamer's verbal strategy	1	1	
Beauty live streaming	1	1	Reputation of streamer	3	4	3.2 Feeling	2	4	
CEO-style live streaming	1	1	Streamer's fan count	1	1	Happy	2	3	
Entertainment live streaming	3	4	Streamer's like count	1	1	Pity	1	1	
Game live streaming	3	3	2.5 Focus during live streaming	6	21	3.3 New thought	3	5	
Live e-commerce	3	4	Comment section	3	5	Recognition of the streamer	2	3	
Sports live streaming	2	2	Content of live streaming	3	4	Standardized of live streaming mechanism	1	2	
Travel live streaming	1	1	Effect of live streaming	6	10	3.4 Impact on future live streaming viewing behavior	5	9	
2.2 Characteristics of live streaming	6	14	Streamer's values and perspectives	2	2	Broader audience reach	1	2	
Diverse content	4	5	2.6 Type of interaction	6	18	Following of streamer	2	3	
Emphasis on interactivity	2	2	Comment	6	9	Increase the viewing frequency of live streaming	3	4	
Highly commercialized	2	3	Connect to the stream	1	1	4. Live streaming social behavior	6	16	
Promotional nature of big data	1	1	Following	1	1	Reason of joining the fan community	6	16	
Well-established mechanism	1	1	Light up the fan community lightboard	2	2	Positive viewing of the streamer	5	5	
Widely popular	2	2	Liking	1	2	To get discount voucher	2	2	
2.3 Social rules or mechanisms of live streaming	6	14	Participate in giveaway	2	3	To participate in the giveaway	3	3	
Banned words settings	3	4							
Displaying the Small Pinwheel ("xiaofengche")	1	1							
Estimation of big data	1	2							
Fan community lightboard	4	4							
Viewer ranking system	3	3							

Figure 1 Schematic diagram of parent nodes and child nodes.

Based on this, axial coding was applied to derive 12 core categories, including exposure to live streaming, type of live streaming watched, characteristics of live streaming, social rules or mechanisms of live streaming, factors influencing live streaming choices, focus during live streaming, types of interaction, knowledge or skills acquired, feeling, new thought, impact on future live streaming viewing behavior, and reason of joining the fan community, as presented in Table 2.

Table 2 Parent nodes and child nodes.

Parent node	Child node
Exposure to live streaming	Self-learning Leisure time Family & friends
Type of live streaming watched	Sports live streaming Entertainment live streaming Travel live streaming Game live streaming Live e-commerce Beauty live streaming Antique appraisal live streaming CEO-style live streaming
Characteristics of live streaming	Diverse content Highly commercialized Widely popular Promotional nature of big data Well-established mechanism Emphasis on interactivity
Social rules or mechanisms of live streaming	Estimation of big data Displaying the Small Pinwheel ("xiaofengche") Fan community lightboard Viewer ranking system Banned words settings
Factors influencing live streaming choice	Personal interest Reputation of streamer Streamer's like count Streamer's fan count Recommendation by others Reputation of product
Focus during live streaming	Streamer's values and perspectives Content of live streaming Effect of live streaming Comment section
Type of interaction	Following

	Participate in giveaway Light up the fan community lightboard Liking Comment Connect to the stream
Knowledge or skills acquired	Fitness techniques Product usage Gaming strategies Streamer's verbal strategy Exam skill Antique appraisal skill
Feeling	Happy Pity
New thought	Recognition of the streamer Standardized of live streaming mechanism
Impact on future live streaming viewing behavior	Following of streamer Broader audience reach Increase the viewing frequency of live streaming
Reason of joining the fan community	Positive viewing of the streamer To participate in the giveaway To get discount voucher

Selective coding continues the process of axial coding at a higher level of abstraction. The objective of this step is to identify the core category, around which other previously established categories can be integrated and consolidated, forming a complete “storyline”. In this section, selective coding resulted in three core categories: live streaming watching behavior, gain from live streaming, and live streaming social behavior, as presented in Table 3.

Table 3 Frequency of parent nodes and child nodes.

Parent node	Child node	Frequency
Live streaming watching behavior	Type of content watched	17
	Characteristics of live streaming	14
	Live streaming social rules or mechanisms	14
	Factors influencing live streaming choices	17
	Focus during live streaming	21
	Type of interaction	18
Gain from live streaming	Knowledge or skills acquired	6
	Feeling	4
	New thought	5
	Impact on future live streaming viewing behavior	9
Live streaming social behavior	Joining streamer's fan community	16

NVivo 15 provides a hierarchical visualization function for nodes. The visualization rules are set as follows: the number of coded items within a node — where a greater number of references results in a darker colour; and the number of coding references within a node — where a higher frequency of references across all materials results in a larger area. The hierarchical tree diagrams for each node are presented in Figure 2, Figure 3, and Figure 4.

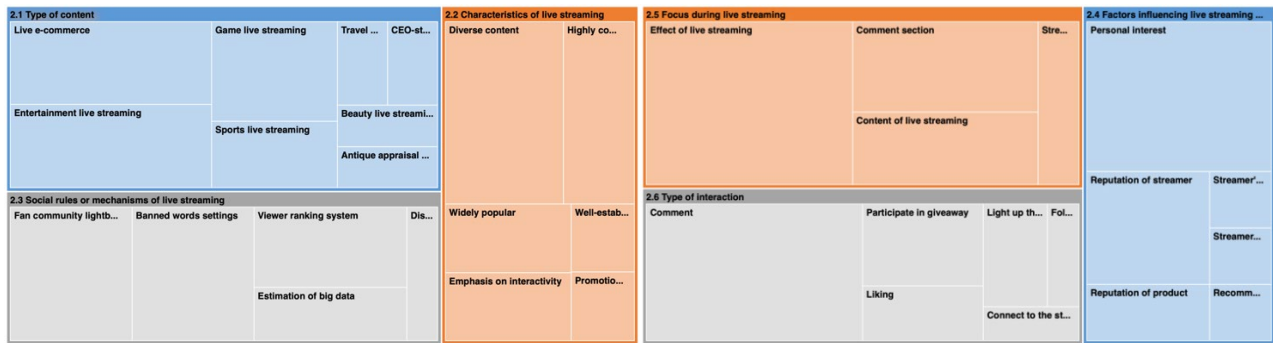


Figure 2 Live streaming watching behavior.

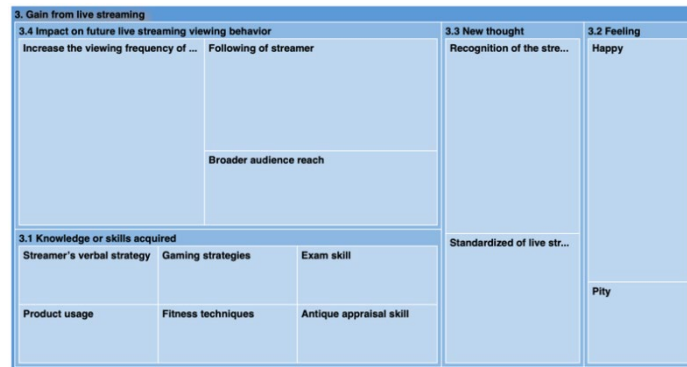


Figure 3 Gain from live streaming.

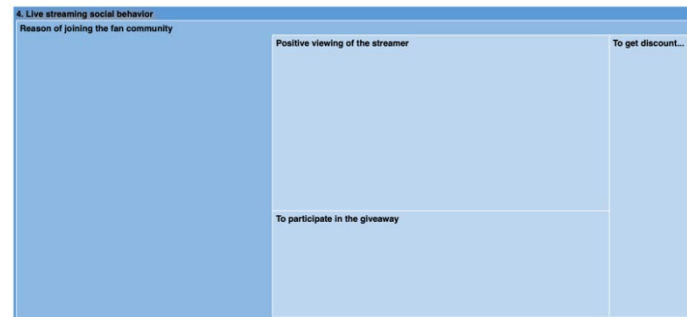


Figure 4 Live streaming social behavior.

Based on the hierarchical node diagrams provided by NVivo 15, the following findings can be derived:

(1) Live streaming watching behavior: Users prefer watching live streams related to e-commerce, entertainment, and gaming. They perceive current Douyin live streaming content as diverse, highly commercialized, widely popular, and interactive. Regarding the social rules and mechanisms within Douyin live streaming rooms, users recognize features such as the “fan badge” system, banned word settings, and audience hierarchy. The primary factors influencing users’ choice of live streams include personal interests, the reputation of the streamer, and the credibility of the promoted products. During live streaming, users are influenced by the overall streaming effect, content quality, and the atmosphere in the comment section. Common interaction methods between users and streamers include leaving comments, participating in giveaways, liking the stream, and activating the fan badge.

(2) Gain from live streaming: Users acquire relevant knowledge or skills based on the type of live stream they watch, such as fitness techniques, product usage methods, gaming strategies, and antique appraisal knowledge. Generally, users experience a positive emotional state while watching. This, in turn, enhances their recognition of the streamer and increases the likelihood of repeatedly watching the streamer’s future broadcasts and following their account.

(3) Live streaming social behavior: Users typically join a streamer’s fan club either due to a

favorable impression of the streamer or to gain access to benefits such as giveaway participation and discount coupons.

5. Conclusion

This study set out to explore how real-time interactions in Douyin live streaming influence users' commitment to community, drawing upon social exchange theory and based on in-depth interviews with ten participants. The findings reveal that users' live streaming behavior is shaped by their interests, content characteristics, and the social mechanisms embedded in the platform. These behavioral patterns, in turn, foster a sense of community through repeated interactions, acquisition of knowledge or skills, and emotional resonance with streamers. Importantly, the real-time engagement not only enhances viewers' satisfaction and knowledge gain but also contributes to the formation of a reciprocal relationship, thereby increasing the likelihood of users joining fan communities and maintaining long-term commitment. Future research may expand on this study by including different platforms or applying mixed methods for broader generalizability.

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