

Brand Entertainment Communication under the Background of Algorithmic Recommendation—A Case Study of Douyin Live Streaming Marketing

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Abstract. With the rapid growth of short-video live streaming, algorithmic recommendation has become the core driver of traffic distribution on Douyin. Many brands now use entertaining livestream content to reduce the stiff, promotional feel of marketing and attract viewers. This paper focuses on Douyin livestreaming, employing literature review and case analysis as its primary methods. It mainly explores how recommendation algorithms affect brand content dissemination and analyzes effective strategies for brand entertainment communication. The results show that algorithms enable accurate audience matching via user tags and behavioral data, while entertaining livestream content tends to sustain traffic advantages. Nevertheless, problems such as content homogenization still exist. Brands need to combine algorithm rules to innovate entertainment forms so as to achieve better communication and marketing effects. This research enriches the theoretical framework for algorithm-driven brand livestream communication in China's short-video ecosystem and offers actionable suggestions for physical-goods brands to implement long-term entertainment livestream marketing on Douyin.

Keywords: Algorithmic recommendation, Live streaming, Entertainment marketing, Brand communication

1. Introduction

Short-video live streaming has matured into a strategically significant marketing environment for contemporary brands. In the past five years, China's live streaming e-commerce market has experienced explosive growth, with GMV breaking 5 trillion RMB in 2025. Consumers' shopping paths have undergone fundamental transformation: passive browsing of offline stores and traditional e-commerce detail pages has shifted to immersive real-time live shopping, and audiences are increasingly resistant to hard-sell advertising embedded in commercial content. Under such market changes, intelligent recommendation systems pioneered by Douyin form the core framework for platform traffic allocation, drastically reshaping brand-consumer interaction mechanisms [1]. To reduce audience aversion to conventional hard-selling tactics, a growing number of brands have pivoted toward entertainment-driven live streams. While extant scholarship has extensively examined live marketing effectiveness and content modalities, relatively few studies have

systematically investigated the interplay between algorithmic mechanisms and brand entertainment communication.

This paper addresses this gap by adopting a dual-method approach—literature synthesis and comparative case analysis. It centers on two core research questions: (1) How does Douyin's recommendation algorithm influence the dissemination of live content? (2) What strategic adjustments should brands implement to optimize entertainment communication within this algorithmic ecosystem? By clarifying the operational logic underlying algorithm-driven livestream marketing, this research contributes both to theoretical discourse on digital brand communication and to practical guidance for brands seeking to implement effective entertainment livestreaming on the platform.

2. Theoretical foundations and platform algorithm analysis

2.1. The connotation of brand entertainment communication

Brand entertainment communication refers to the deliberate integration of entertaining elements into brand messaging, with the objective of reducing consumer resistance and fostering deeper engagement. Diverging from traditional advertising that relies primarily on direct persuasion, entertainment-oriented communication attracts audiences through emotional resonance, narrative immersion, and participatory experiences. Within short-video platforms, this approach is manifested through diverse formats, including humorous sketches, talent demonstrations, storytelling, interactive games, and behind-the-scenes content, which help reduce the perceived commercial tone of brand communication.

The rise of brand entertainment communication is linked to changes in media consumption patterns. Contemporary audiences, especially younger consumers, have developed stronger resistance toward overt commercial persuasion and increasingly prefer content perceived as authentic, relatable, and valuable. This behavioral shift has compelled brands to acquire what scholars term "platform vernacular"—the native linguistic, aesthetic, and participatory conventions unique to each digital environment [2]. Brands that successfully internalize this vernacular can sustain visibility and audience engagement without relying exclusively on direct promotional appeals. Instead, they can utilize organic entertainment-oriented content to maintain ongoing brand relevance.

2.2. The recommendation algorithm system of Douyin live streaming

Douyin's recommendation algorithm functions as an intricate socio-technical system that governs content visibility and value attribution. Unlike traditional social media that depend on follower-based networks, Douyin adopts an interest-driven recommendation model, in which content performance and user preferences play a central role in determining exposure.

At its core, the algorithm predicts user behavior through neural network-based computations. Its recommendation logic can be formalized as: comprehensive prediction of user behavior probability $\times$ behavioral value weight = video recommendation priority. The recommendation pipeline comprises three sequential stages: recall, filtering, and ranking. Through user-content matching models and behavioral prediction mechanisms, the system identifies content that is likely to attract specific users based on their historical behaviors and interest patterns.

For live streaming, recommendation necessitates a bilateral optimization framework that jointly considers real-time content evolution and interactions between streamers and audiences. Unlike pre-

recorded short videos, live streams involve continuous changes in content quality, audience participation, and commercial interaction. Therefore, algorithmic distribution must simultaneously evaluate content attractiveness, user engagement, and platform retention objectives to achieve effective matching between live content and target audiences [3].

Douyin's e-commerce ecosystem has gradually integrated content distribution and sales conversion tools. The platform built a three-tier content pool system under its core "content-centric" strategy. The content pool gives priority to clips with strong interest signals, high interaction, or long watch time, pushing authentic, attractive content to more users. The transaction pool matches users with content that aligns with their purchase intent or behavioral signals, emphasizing well-structured product presentations. The ad pool amplifies high-quality content and products through bidding algorithms and optimization models. Critically, an inter-pool circulation mechanism permits premium content from the transaction pool to migrate into the content pool for expanded organic exposure. As a result, high-performance content can gain natural traffic exposure instead of only staying within sales-focused pools.

This three-pool architecture reflects an evolving platform philosophy: content and commerce are no longer treated as separate tracks but as mutually reinforcing layers. By enabling transactional content to earn organic reach, Douyin incentivizes brands to produce engaging, value-rich material that serves both entertainment and commercial objectives simultaneously.

2.3. The algorithm's filtering logic for live streaming content

Douyin's recommendation systems' filtering rules decide which livestreams get pushed to target viewers via multi-dimensional assessment of content quality and user matching degree:

First, the algorithm constructs user profiles based on behavioral data—including viewing history, interaction patterns (likes, comments, shares, bookmarks), and demographic and device-related information. User engagement value represents an important optimization objective within Douyin's recommendation framework. Therefore, the system judges content appeal through a set of behavioral metrics: watch time, full-view rate, comment volume, likes, interaction frequency and forward volume. Second, the algorithm evaluates live streaming content in real time. Key signals encompass viewer retention duration, interaction intensity (bullet-chat volume, gift-giving, and poll participation), and audience feedback. Empirical evidence indicates that algorithmic systems reward content that sustains viewer attention and stimulates social sharing. Consequently, even lesser-known brands can outperform established competitors if their content generates authentic interactive momentum. Third, the algorithm deploys diversity and exploration mechanisms to reduce excessive content repetition and expand users' potential interests through multi-objective recommendation strategies. The platform attempts to balance personalized recommendations with content diversity, enabling users to discover new topics and brands. The evolution of the algorithm exhibits a shift toward dynamic value modeling, where recommendation priority is determined jointly by behavioral probability and behavioral value weight—with bookmarking now carrying greater weight than likes, reflecting the platform's emphasis on enduring content value [4].

3. Communication modes of brand entertainment in Douyin live streaming

3.1. Main forms of entertainment content

Douyin brands have created various entertaining livestream content forms to attract viewers and fit platform matching rules. Such content falls into five typical categories.

(1) **Storytelling and Brand Narrative:** Some brands adopt a narrative-driven approach that transforms live streaming into an immersive brand storytelling experience. ICICLE, a Chinese fashion brand, hosted a "cultural salon"-style live stream in a garden setting, during which the founder and an Italian wool mill CEO conversed informally about craftsmanship, innovation, and brand heritage. This non-commercial format attracted over 2.6 million viewers and topped Douyin's live streaming charts.

(2) **Interactive and Gamified Formats:** Lots of brands add interactive gameplay to lift user activity and match the system's evaluation standards. Interactive tools, including lotteries, trivia tests, and live polls, turn passive viewers into active participants and send high-quality interaction signals to the recommendation systems [5].

(3) **Behind-the-Scenes and Transparency Content:** Livestreaming's capacity to deliver real-time, sensory-rich experiences renders it ideal for behind-the-scenes content. ICICLE's broadcast on Xiangyunsha (gambiered Guangdong silk) detailed the entire production process and supply chain, earning viewer praise for "redefining transparency." This format builds trust while providing inherently engaging content that algorithms recognize as high-retention material.

(4) **Celebrity and KOL-Driven Entertainment:** Brands frequently collaborate with celebrities and key opinion leaders (KOLs) to inject entertainment value into live streams. Overly commercialized KOL broadcasts sometimes bring negative effects, yet genuine influencers and well-liked celebrity ambassadors gain wider recognition, as their close emotional bonds with audiences improve marketing persuasion [6].

(5) **Variety Show-Style Formats:** Some brands experiment with mini variety shows, lectures, expert panels, and other creative formats that extend beyond standard product demonstrations. These formats diversify content and sustain viewer interest by introducing elements of surprise, novelty, and intellectual stimulation.

3.2. User participation logic under different modes

Various entertaining livestream modes trigger different user interaction behaviors, which produce exclusive evaluation signals for the algorithmic recommendation systems. In narrative-driven streams, users tend to demonstrate deeper engagement through meaningful comments, content sharing, and repeated viewing behaviors. Such interactions reflect tight user-brand bonds and boost long-run content weight indicators, including collections and follower increases.

In interactive and gamified streams, participation is more immediate and transactional. Viewers engage in rapid-fire commenting, participate in polls, and make impulse purchases, generating high levels of short-term interaction signals that support wider algorithmic distribution. For behind-the-scenes authentic live streams, users' participation mostly comes from trust-generating actions. Viewers may ask detailed product questions, request additional information, and develop brand loyalty. This shift turns short-lived browsing interest into stable long-term user relations.

The algorithmic system matches these participation patterns with different audience segments. Users with exploratory browsing behaviors may receive more diverse content formats, while those demonstrating clear purchase intent may receive more transaction-pool content [7].

3.3. Content creation characteristics under algorithmic preferences

To gain stable traffic support from platform recommendation systems, brands entertaining livestream content needs to follow the creation rules favored by algorithm mechanisms.

High Retention in the Initial Seconds: Algorithms assess content quality almost immediately—within the first second of viewing. Content that fails to capture attention instantly loses algorithmic favor. This has driven brands to front-load entertainment value, opening streams with hooks, surprises, or visually compelling moments.

Emotional Resonance and Authenticity: Research demonstrates that content quality is critical; poor or irrelevant content leads to negative perceptions and disengagement. Algorithms favor content that generates authentic emotional responses—laughter, surprise, awe, or empathy. Brands that manufacture emotions or appear inauthentic risk both algorithmic penalties and audience rejection [8].

Interaction Density: Higher interaction density (comments per minute, gift frequency, participation rates) generates stronger algorithmic signals. Streamers are thus incentivized to encourage constant interaction through questions, calls-to-action, and real-time responses to viewer comments. Repetitive, mechanical speech patterns tend to be less favored by both the algorithm and audiences.

Production Quality: The algorithm's preference for high-retention content means that production quality matters. Immersive backdrops, professional lighting, clear audio, and visually appealing presentations all contribute to longer watch times. Brands streaming from bonded warehouses, factory floors, or visually striking locations can leverage these settings to boost credibility and retention.

Content-Transaction Integration: Under Douyin's three-pool system, content that effectively integrates entertainment with transaction signals can circulate between pools, achieving broader organic exposure. Brands that create high-quality, value-added product content can expand user coverage and achieve rapid growth without fully relying on paid traffic delivery.

4. Practical analysis and development suggestions

4.1. Comparative analysis of brand cases

Different brands have adopted distinct entertainment communication strategies on Douyin, yielding varying degrees of success.

ICICLE: The "Cultural Salon" Approach. ICICLE's strategy exemplifies how high-end brands can leverage entertainment content without compromising brand positioning. By transforming live streams into cultural experiences—sunset viewing, craft storytelling, garden conversations—ICICLE aligned with Douyin's "return to content" strategy. The brand regards its live stream room as an online exhibition space and delivers its brand philosophy through low-key, aesthetic and high-quality content presentation. This approach resonated with consumers who value "buy less, buy better," generating deep engagement rather than transactional volume. The success of ICICLE demonstrates that algorithmic success does not require mass-market appeal; rather, it requires authentic content that generates genuine engagement within a defined audience segment.

Zara: Mediated Brand Identity through Livestreaming. Zara's live shows on Douyin represent another strategic approach. The brand launched five official livestream sessions from April to May 2025 to build mediated brand identity, a complete digital brand image covering physical elements including show stages, shooting spaces, equipment and behind-the-scenes details, as well as emotional elements including presentation style, material craftsmanship, fashion trends and scene atmosphere [9]. This approach strategically repositioned Zara from a mass-market fast-fashion brand to a more sophisticated, premium player. The case illustrates how livestreaming can serve not merely as a sales channel but as a tool for long-term brand transformation.

Meters Bonwe: Gamified Live Commerce. Meters Bonwe adopted a different strategy, using live streaming to sell group-purchase vouchers. In April 2024, the brand achieved over 100 million RMB in GMV within 40 days on Douyin, topping the platform's apparel instant retail rankings. This approach leveraged the entertainment value of live shopping events—countdowns, limited-time offers, and social proof—to drive rapid conversion.

4.2. Summary of communication pain points in the algorithmic environment

Despite the opportunities presented by algorithmic recommendation, brands face significant challenges in entertainment communication.

Content Homogenization. Perhaps the most pervasive problem is content homogenization. Because algorithms reward proven formats—high completion rates, strong interaction signals—creators and brands tend to imitate successful templates, leading to a proliferation of similar content. This homogeneity not only reduces audience novelty but also diminishes the distinctive brand identities that differentiate competitors. The algorithmic incentive structure, which prioritizes what has already worked, creates a self-reinforcing cycle of imitation that stifles creativity.

Algorithm Dependency and Volatility. Brands that achieve success through algorithmic favor often become dependent on continued algorithmic preference. Algorithm updates—such as Douyin's September 2024 three-pool system overhaul—can dramatically shift traffic distribution, disrupting established strategies. Such rule fluctuations bring operational uncertainty for brands that invest long-term resources in Douyin livestream content layout.

Privacy Concerns and User Resistance. AI-powered personalized recommendations enhance engagement by seamlessly integrating product discovery into entertainment experiences. However, privacy concerns emerge when personalization is perceived as excessively intrusive, leading to negative emotions and avoidance behaviors [10]. Brands must navigate the fine line between helpful personalization and perceived surveillance.

Information Cocoon Effects. Algorithmic recommendation can confine users to information cocoons, limiting exposure to diverse content and perspectives. Although Douyin has launched content exploration mechanisms to alleviate this problem, the trend of single and solidified user content preferences still exists, restricting brands' access to new user groups.

Short-Term vs. Long-Term Value Tension. The algorithm's emphasis on engagement metrics can incentivize brands to prioritize short-term, sensational content over long-term brand building. Content that generates immediate reactions may not contribute to sustained brand equity.

4.3. Optimization directions for brand entertainment live streaming operations

Based on the analysis above, several optimization directions emerge for brands seeking to improve their entertainment live streaming operations under algorithmic recommendation.

Embrace Platform Vernacular While Maintaining Distinctiveness. Brands must become fluent in Douyin's platform vernacular—the native content conventions, aesthetic norms, and participation patterns that define the platform. However, fluency should not come at the expense of brand distinctiveness. Successful brands find ways to adapt platform conventions to their unique brand identity rather than merely imitating competitors.

Balance Algorithm Optimization with Content Innovation. Although mastering and applying algorithm rules is essential for traffic acquisition, brands should not completely confine content strategies to algorithm adaptation. Innovation—introducing new formats, unexpected collaborations,

and fresh narratives—can generate the novelty signals that algorithms increasingly value in their diversity and exploration mechanisms.

Invest in Production Quality and Authenticity. The algorithm's preference for high-retention content rewards production investment. Brands should view live streaming as a brand-building opportunity rather than merely a sales channel, investing in immersive backdrops, professional presentation, and authentic storytelling. Authenticity, in particular, generates the emotional resonance that algorithms and audiences alike reward [11].

Develop Multi-Pool Content Strategies. Under Douyin's three-pool system, brands should develop content strategies that perform effectively across content, transaction, and ad pools. Content that can circulate between pools—compelling enough for organic discovery yet structured enough for transaction—achieves the greatest reach and efficiency.

Leverage Bilateral Value Creation. The bilateral nature of live streaming recommendation means that brands should consider both streamer and audience interests. Streamers who create positive experiences for both sides—engaging content that satisfies audience interests while building streamer reputation—generate sustainable algorithmic favor.

Address Content Homogenization through Differentiation. To combat homogenization, brands should identify and amplify their unique value propositions—whether through distinctive visual aesthetics, specialized expertise, or unique storytelling approaches. The success of ICICLE's low-speed aesthetic and cultural salon livestreams lies in its distinct difference from conventional sales-oriented fast livestream modes.

Integrate Short-Term Engagement with Long-Term Brand Building. While algorithm metrics often emphasize short-term engagement, brands should structure their live streaming operations to contribute to long-term brand equity. This means investing in content that builds brand recall, emotional connection, and customer loyalty—metrics that align with the algorithm's increasing emphasis on user long-term value [12].

5. Conclusion

This paper investigates brand entertainment communication within the algorithmic recommendation environment of Douyin live streaming. It first outlines the theoretical foundations of brand entertainment communication and the workings of Douyin's recommendation algorithm, then systematically categorizes the various forms of entertaining live stream content and their interactive mechanisms with platform algorithms. In response to the research questions raised in the introduction, the study confirms that the algorithm achieves precise audience matching through user profiling and behavioral data, and that interactive indicators directly determine the traffic allocation of live stream rooms. By producing entertaining content that conforms to algorithmic preferences, brands can secure enhanced exposure. Through comparative case analysis, the research further reveals that entertainment-based live marketing effectively reduces consumer resistance to commercial messaging; however, problems such as content homogenization and over-reliance on algorithmic traffic persist. This study has certain limitations: it relies primarily on qualitative analysis and lacks quantitative empirical validation. Future research could integrate platform big data to conduct quantitative assessments of communication effectiveness. Additionally, subsequent investigations might focus on content innovation and long-term brand value construction under the continued evolution of recommendation algorithms.

References

- [1] Zhao, Z., Shi, B., & Zhang, Z. (2026). Do platform recommendation logics shape public engagement with sports health content? 400-video evidence from Douyin and Bilibili. *Frontiers in Public Health*, 14, 1801241. DOI: 10.3389/fpubh.2026.1801241
- [2] Saduakassova, A. (2025). *How short-form video formats reshape brand communication: Narrative, vernacular, and algorithmic strategies on TikTok* [Master's thesis, University of Padua]. Available at: <https://thesis.unipd.it/handle/20.500.12608/108796>
- [3] Xiang, Y., Tantawy, A., & Dadwal, S. (2024). Exploring the practices of Chinese short video platforms to enhance user stickiness and grooming the customers: A case study of Douyin China (TikTok). In S. Dadwal, H. Jahankhani, & K. Revett (Eds.), *Market grooming: The dark side of AI marketing* (Vol. 1, pp. 249–273). Emerald Publishing. DOI: 10.1108/978-1-83549-001-320241012
- [4] Mo, X., Wu, Y., & Mo, S. (2026). Algorithmic "local knowledge": An analysis of the cultural logic behind recommendation mechanisms in Chinese short-video platforms vs. Western platforms. In *Proceedings of the 2026 ACM Conference on Fairness, Accountability, and Transparency*. DOI: 10.1145/3795926.3795999
- [5] Mai, X., Zhang, J., Long, J., & Xu, J. (2026). "Countdown to buy": The impact of perceived competition and bandwagon effect on impulse behavior in live streaming commerce. *Journal of Sensory Studies*, 41(1), e70107. DOI: 10.1111/joss.70107
- [6] Chan, T. H., Hung, K., & Tse, D. K. (2023). Comparing e-commerce micro- and macroinfluencers in TikTok videos: Effects of strategies on audience likes, audience shares, and brand sales. *Journal of Interactive Advertising*, 23(4), 307–322. DOI: 10.1080/15252019.2023.2273253
- [7] Wang, L., Zhang, C., Liu, M., & Zhang, W. (2026). Beyond the spotlight: How non-celebrity streamers' communication styles and product types drive purchase intent in live streaming commerce. *Journal of Consumer Behaviour*, 25(3), 1–18. DOI: 10.1002/cb.70168
- [8] He, R. (2025). Multimodal sentiment and emotional analysis in short video dissemination. *International Journal of Information Systems and Social Change*, 16(1), 1–25. DOI: 10.4018/978-1-6684-3087-3.ch009
- [9] Yang, H. (2025). *Shaping mediated brand identity through livestreaming: A case study of Zara live show* [Master's thesis, Erasmus University Rotterdam]. Available at: <http://hdl.handle.net/2105/76597>
- [10] Ding, L., Antonucci, G., & Venditti, M. (2025). Unveiling user responses to AI-powered personalised recommendations: A qualitative study of consumer engagement dynamics on Douyin. *Qualitative Market Research*, 28(2), 234–255. DOI: 10.1108/QMR-11-2023-0151
- [11] Zhang, Y., & Lee, G. (2025). Interactions among attractiveness, expertise, trustworthiness, and product involvement in consumption behavior on livestreams. *SAGE Open*, 15(3), 1–17. DOI: 10.1177/21582440251365416
- [12] Dong, L. (2025). Research on interactive design optimization mechanism of short video advertising: A cross-platform comparative analysis based on the information flow of Douyin and TikTok challenges. In *Proceedings of the 2nd International Conference on Public Relations and Media Communication (PRMC 2025)* (pp. 718–722). SciTePress. DOI: 10.5220/0014002400004916