The Competitive Strategy of AI-Based Social Platforms: A Case Study of Xiaohongshu

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Abstract. The rapid rise of short-video giants like TikTok and Kuaishou has intensified competition in China's social media landscape, forcing niche platforms to seek innovative survival strategies. As a lifestyle-sharing platform, Xiaohongshu faces particular challenges in retaining its core user base while expanding into broader markets amid the dominance of these multipurpose platforms. The platform's strategic integration of AI technologies has become crucial for maintaining its competitive edge in content personalization and user engagement. This study examines Xiaohongshu (Little Red Book) and explores how it utilizes artificial intelligence (AI) technology to maintain its audience and expand user layers under the pressure of competition from multi-purpose platforms such as Tiktok and Kuaishou. Based on platform competition strategy theory, the study analyzes the differentiated competitive strategy formed by Xiaohongshu's "unique content ecosystem + precise search mechanism + high-net-worth users," revealing its competitive advantages in high-decision-cost consumption scenarios. The research shows that Xiaohongshu constructs a "dual barrier" of "algorithm + culture" based on the underlying logic of "decentralized traffic distribution" and "reverse funnel marketing," providing valuable insights for the sustainable development of vertical social platforms.

Keywords: Xiaohongshu, platform competition, AI technology, vertical social platforms, content ecosystem.

1. Introduction

In the current competition among digital content platforms, short video platforms such as Tiktok and Kuaishou have continued to capture user time with entertainment-focused content, putting immense pressure on vertical social platforms [1]. In 2023, Tiktok launched a new text-and-image feature that directly entered the core content domain of Xiaohongshu (Little Red Book), further intensifying the competition between the two. In this context, Xiaohongshu still exists as a leading "lifestyle decision-making platform" in China, with 260 million monthly active users, 70% of whom engage in proactive search behavior. This has helped Xiaohongshu form a differentiated ecosystem centered around user-generated content (UGC) and high-quality community interactions. While maintaining its unique characteristics, Xiaohongshu continuously innovates its competitiveness to stay competitive against other multi-purpose entertainment platforms.

This study aims to explore how AI technology can help vertical social platforms like Xiaohongshu build competitive barriers to resist the "disruptive impact" from multi-purpose platforms. The article analyzes its core strategies and differentiated advantages in intense competition (such as the UGC ecosystem and high-value search scenarios), revealing the challenges the platform faces in content quality control, commercialization balance, and user retention. Additionally, the study examines how AI technology can strengthen Xiaohongshu's position as a "lifestyle decision-making platform" through precise content distribution, intelligent creation assistance, and scenario-based service recommendations, ultimately consolidating its competitive moat of "real sharing - efficient decision-making" to achieve differentiated sustainable growth.

2. Platform Analysis

This article employs the classic strategic analysis framework to dissect the competitive strategy of Xiaohongshu. Based on the Five Forces Model theory proposed by Porter (1979) [1], this model

posits that the essence of industry competition lies in its underlying economic structure, with competitive forces including the threat of potential entrants, the bargaining power of suppliers, the bargaining power of buyers, the threat of substitutes, and the intensity of competition among existing competitors. Porter pointed out, "The essence of competition is to deal with competition, yet people tend to view it too narrowly and pessimistically" [2]. This theory provides a systematic framework for analyzing Xiaohongshu's competitive position within the digital platform ecosystem.

This paper also uses the SWOT analysis method to evaluate the internal and external environment of Xiaohongshu. As Hill and Westbrook (1997) warned in their classic study, although SWOT analysis is widely used, it often has problems such as "long lists (averaging over 40 factors), general descriptions (usually meaningless), failure to prioritize, and no attempt to verify any points" [3]. Therefore, this paper strives to avoid these pitfalls, focusing on the analysis of key strategic elements to ensure that the analysis results can be practically applied in subsequent strategic planning.

2.1. SWOT Analysis

Xiaohongshu's core competitive strength lies in its "high-trust UGC + AI-driven precise matching + differentiated e-commerce." It needs to strengthen its competitive moat through technological empowerment (such as AIGC, intelligent search) while expanding its user base and business scenarios to counter the "disruptive impact" from multi-purpose entertainment platforms.

2.1.1. Strengths

Xiaohongshu builds its core competitiveness through a high-trust UGC (user-generated content) ecosystem, where real consumer experiences and reviews become the platform's key differentiator. 90% of Xiaohongshu's content comes from KOCs (Key Opinion Consumers), and this "decentralized" content production model establishes a unique community trust mechanism. According to third-party research data, users trust "amateur reviews" 32% more than those from professional KOLs (Key Opinion Leaders). This high trust stems from the authenticity and everyday nature of the content. The platform continuously nurtures high-quality UGC creators through a strict user growth system (such as "creator levels") and content incentive mechanisms (such as "Fries Promotion"). Notably, the average user interaction rate (likes + comments + saves) on Xiaohongshu reaches 15.8%, significantly higher than the industry average. This high level of engagement further strengthens community stickiness [4].

Xiaohongshu relies on AI-driven precise recommendations, using deep learning algorithms to analyze users' browsing history, interaction behavior, and content preferences, creating a personalized content distribution network tailored to each individual. Xiaohongshu's self-developed AI intelligent word-expansion system processes 300 million search requests daily, achieving an 88% match accuracy rate. This system innovatively combines NLP semantic analysis with user behavior modeling, enabling precise interpretation of complex search intentions (e.g., linking "slimming outfits" to "pear-shaped body styling tips"). In terms of recommendation mechanisms, the platform's unique CES (Content Ecosystem Scoring) algorithm includes over 120 evaluation dimensions, ensuring that 50% of traffic is allocated to medium and long-tail creators. This decentralized distribution strategy leads to the addition of over 100,000 new small and medium creators each month, effectively avoiding the "Matthew Effect" and maintaining the healthy development of the content ecosystem [5].

Xiaohongshu has created a differentiated e-commerce closed-loop of "discover-search-purchase-feedback," deeply binding high-trust UGC content with transaction scenarios. Xiaohongshu adopts a "non-standard product priority" strategy, with data showing that products priced above 500 yuan account for 35% of sales, primarily focusing on high-margin categories such as designer brands and niche beauty products [6]. The platform's innovative "content-as-shelf" model, powered by AI technology, enables a "what-you-see-is-what-you-get" experience: when users browse notes, they can directly trigger product cards, shortening the purchase path to just three clicks (compared to the industry average of five or more), which results in a 40% increase in conversion rate. On the supply chain side, Xiaohongshu focuses on a "brand direct supply + buyer collection" dual-track model.

Currently, over 5,000 designer brands have joined the platform, creating a unique advantage in product supply. Notably, 65% of the platform's GMV comes from repeat customers, indicating that Xiaohongshu has established a stable consumer purchasing mindset [7].

2.1.2. Weaknesses

Xiaohongshu currently faces a potential risk from its user demographic's lack of diversity, with its core user group highly concentrated in first- and second-tier cities, primarily consisting of female consumers aged 20-35. The fact that male users currently make up only 30% of the platform's user base presents a significant structural constraint on its development. From the perspective of category expansion, this user structure leads to insufficient penetration in male-dominated consumption areas such as 3C electronics, automotive products, and sports equipment. Data shows that the content viewership for 3C-related content on Xiaohongshu is only one-fifth of that on digital-focused communities, while engagement with automotive content is just 8% of that on "Autohome." This limitation not only affects the platform's commercialization potential (as male users' annual spending is 23% higher than that of female users), but also places a ceiling on the overall growth of the platform's user base [8].

Xiaohongshu's logistics system has a major shortcoming in the absence of its own warehousing and distribution network, which becomes a key bottleneck in restricting the e-commerce closed-loop experience. In the logistics fulfillment process, Xiaohongshu's reliance on third-party logistics providers leads to significant efficiency bottlenecks. Comparative data shows that its average delivery time is 2.3 days, which is notably behind JD's 1.2 days and Tmall Supermarket's 1.5 days. During the 618-shopping festival, Xiaohongshu's order fulfillment on-time rate was only 85%, compared to JD's 98%. More critically, the lack of self-built logistics makes it difficult for the platform to achieve the "content discovery - immediate purchase - fast delivery" closed-loop experience, particularly in time-sensitive categories such as fresh produce and cold chain goods. According to internal research, 23% of users abandoned repurchase due to poor logistics experiences [9].

Xiaohongshu is facing a dynamic balancing challenge between commercial expansion and maintaining the community's tone. The core of this contradiction lies in how to achieve sustainable monetization without damaging user experience. The acceleration of commercialization on the platform is triggering significant changes in its community ecosystem. Monitoring data shows that, by 2023, the proportion of commercial content has risen to 35%, with about 15% of it reported by users as "excessive marketing." This trend has led to a 2.3 percentage point increase in the monthly churn rate of core users (those with daily usage time > 60 minutes) compared to the previous year. Even more concerning is the decline in the authenticity rating of UGC content (measured through NLP sentiment analysis), which dropped from 8.7 in 2022 to 7.9 in 2023. To address this challenge, Xiaohongshu has had to continuously upgrade its content governance system, adding 12 new marketing content recognition dimensions in 2023. However, finding the optimal balance between commercialization and community tone remains a long-term issue.

2.1.3. Opportunities

Xiaohongshu's strategic value in deploying AIGC technology lies in breaking through content production bottlenecks and reshaping the community ecosystem through human-machine collaboration. Xiaohongshu has implemented AIGC technology in three core scenarios: In intelligent content generation, the internal test of the "AI Creation Assistant" can automatically generate product review frameworks, improving content production efficiency by 40%. Currently, 12% of beauty-related posts are created with AI assistance. In virtual experience, the platform uses AR makeup try-on technology to allow users to virtually try over 6,000 cosmetic products, increasing user engagement time by 25%. In personalized recommendation engine upgrades, the AIGC content dynamic optimization system based on user behavior has improved recommendation accuracy by an additional 8 percentage points. It is worth noting that the platform is testing the "AI Amateur Influencer" project, which generates realistic content through virtual avatars. This could address the issue of limited content production capacity among small and medium creators. However, there is a

need to be cautious about the risk of trust dilution due to excessive commercialization of AIGC content. The platform has already implemented an "AI Content Labeling" mechanism for transparency management [10].

Xiaohongshu's systematic plan to expand its male user market needs to break through the existing path dependence of the "she economy" and build a multi-dimensional ecosystem restructuring strategy. To target male users, Xiaohongshu has launched the "Breakthrough Plan": At the algorithmic level, it is reconstructing the male interest graph by adding 15 new vertical tags, such as esports and car modification, which has resulted in a threefold increase in the exposure of related content. In terms of creator incentives, Xiaohongshu has established the "Hardcore Creator Fund" to focus on supporting professional KOCs (Key Opinion Consumers) in fields like technology and outdoor activities. As a result, the number of male creators has increased by 45% compared to the previous period. For commercialization, the platform is selectively bringing in brands from 3C electronics, sports equipment, and other categories, which has led to an 18% increase in male user ARPU (Average Revenue Per User) within six months. However, this transformation faces deep challenges: the "atmospheric barrier" formed by the platform's female-oriented content gene means that the seven-day retention rate of new male users is still 11 percentage points lower than that of female users. This requires a more refined community management strategy to overcome this dilemma.

In the local life services sector, Xiaohongshu adopts a three-step strategy of "content-transaction-service": During the content infrastructure phase, through the LBS + UGC model, the platform has accumulated over 20 million local store exploration notes, covering 85% of county-level areas nationwide. In the transaction loop construction phase, Xiaohongshu has established data integration with platforms like Meituan and Koubei, enabling direct transitions from "notes" to "packages," with a conversion rate exceeding the industry average by 60%. In terms of service deepening, Xiaohongshu has piloted the "City Manager" program to cultivate localized content creators, doubling the content output in second- and third-tier cities. The key breakthrough lies in creating a differentiated advantage—focusing on the long-tail demand for "niche specialty scenes" (such as community cafés and independent bookstores), avoiding direct competition with Dianping in standardized merchant services. Data shows that this strategy has led to Xiaohongshu's local life GMV maintaining more than 75% quarter-over-quarter growth for three consecutive quarters.

2.1.4. Threats

Competition from Multi-Purpose Platforms: Tiktok has strongly introduced the text-and-image "seed planting" feature, leveraging its massive traffic pool and algorithm advantages to directly compete with Xiaohongshu for core users and advertising resources. Data shows that Tiktok's daily reading volume of text-and-image content has exceeded 10 billion, posing a challenge to Xiaohongshu's differentiated positioning.

Policy and Regulatory Risks: Tiktok's aggressive push into the text-and-image space, backed by its massive user base and algorithmic power, is directly competing with Xiaohongshu for core users and advertisers. This intensifies the pressure on Xiaohongshu, particularly as Tiktok's daily reading volume of text-and-image content has surpassed 10 billion, disrupting Xiaohongshu's unique positioning.

Multi-Platform Distribution Weakens Bargaining Power: The growing trend of KOCs and KOLs distributing content across multiple platforms, such as Tiktok and Bilibili, is diminishing Xiaohongshu's exclusivity over high-quality content and its bargaining power with creators. This multi-platform approach directly impacts Xiaohongshu's ability to secure content dominance and negotiate favorable terms.

2.1.5. Strategic Insights

Table 1. Xiaohongshu SWOT Strategic Matrix and Implementation Measures.

Strategic Direction	Specific Measures	Expected Outcomes
Strengthen Strengths (S+O)	Utilize AI to deepen the "Search + Recommendation" dual engine and reinforce the "lifestyle decision-making" positioning.	Increase user engagement and reinforce the "search for strategies → make decisions" mindset, consolidating the differentiated competitive advantage.
	Expand AIGC tools (such as AI Note Assistant, Smart Editing) to lower the creation threshold and enrich the content ecosystem.	Boost the quantity and quality of UGC, covering more long-tail demands and enhancing content diversity.
Address Weaknesses (W+O)	Attract male users by optimizing algorithms (e.g., male interest tags) and vertical content (e.g., electronics, automotive) to balance the gender ratio.	Reduce the risk of a single user structure and expand into new consumption scenarios (e.g., 3C electronics, sports equipment).
	Explore lightweight logistics cooperation (such as instant delivery, bonded warehouse collaboration) to improve e-commerce fulfillment experience.	Alleviate logistics shortcomings, improve conversion rates for high-value products, and strengthen e-commerce closed-loop competitiveness.
Defend Against Threats (S+T)	Strengthen content review (e.g., 900-dimensional AI filtering system + manual inspection) to maintain the authenticity of UGC.	Prevent false marketing from eroding community trust, ensuring the core barrier of "authentic sharing."
	Create a differentiated e-commerce closed-loop (focusing on non-standard products + short conversion paths) to resist traffic impact from platforms like Tiktok.	Retain the high-decision-cost market with the "deep planting → quick purchase" model, avoiding falling into price wars.

Table 1 outlines the SWOT analysis of Xiaohongshu, including strategic recommendations and actionable measures.

2.2. Porter's Five Forces Analysis

2.2.1. Intensity of Existing Competitor Rivalry (Moderately High)

Xiaohongshu has built a differentiated barrier through its unique UGC ecosystem: 90% of its content comes from real KOCs, with user trust 32% higher than that of KOLs. The 900-dimensional AI review system ensures content quality, and the CES algorithm ensures equal traffic distribution (50% allocated to medium and long-tail creators). Compared to platforms like Tiktok, which are dominated by top KOLs and monopolize traffic, Xiaohongshu's decentralized model is more advantageous in high-decision fields (such as beauty and home products). However, Tiktok's recent focus on text-and-image "seed planting" with a daily reading volume surpassing 10 billion has increased the competitive pressure.

2.2.2. Bargaining Power of Suppliers (Moderate)

Although medium and long-tail KOCs/KOLs rely on Xiaohongshu's traffic, the multi-platform distribution strategy (which allows creators to operate on Tiktok, Bilibili, etc.) has weakened the platform's exclusivity. The AI-powered intelligent word-expansion system (processing 300 million requests daily with 88% accuracy) and the "reverse funnel" marketing model (with CPM 40% lower than Tiktok's) enhance the platform's appeal to creators, maintaining a balanced bargaining position.

2.2.3. Bargaining Power of Buyers (Moderate to Strong)

Brands rely on Xiaohongshu's "seed planting" effect, but the presence of alternative channels such as Tiktok gives them bargaining power. The platform enhances its commercial value through AI-

driven precise matching (with a 25% increase in conversion rates) and differentiated e-commerce (with 35% of transactions from products priced above 500 yuan), partially offsetting the bargaining pressure from buyers.

2.2.4. Threat of New Entrants (Low)

Xiaohongshu's high-trust UGC ecosystem (with a 15.8% user interaction rate), its "content-as-shelf" model (with a 40% increase in click-to-conversion), and AI technology barriers (such as the 900-dimensional review system) create significant entry barriers. New platforms would find it difficult to replicate Xiaohongshu's content ecosystem and technological framework in the short term.

2.2.5. Threat of Substitutes (Moderate)

Traditional search engines and private traffic may divert users, but Xiaohongshu's "real UGC + short conversion path" one-stop experience (with purchases completed in three clicks) creates a unique value proposition. The application of AIGC technology and expansion into male user segments (currently only 30% of users) offer new growth opportunities.

3. Challenges and Development

Xiaohongshu is currently facing a systemic development dilemma due to multiple challenges: the imbalance in user structure (with male users only accounting for 30%, leading to difficulties in expanding categories such as 3C electronics, where content views are only one-fifth of those on vertical platforms), logistics experience shortcomings (third-party delivery efficiency is 2.3 days, with a fulfillment rate of 85% during promotions and high return rates), and rising regulatory costs (processing 170,000 non-compliant posts annually, with brand compliance costs increasing by 20%), which create internal constraints. Externally, the platform is encountering competition from multi-purpose platforms (Tiktok's daily reading volume of 10 billion+ text-and-image posts and its algorithmic efficiency create immense pressure), precise user segmentation from vertical communities (platforms like Dewu now surpass Xiaohongshu in user engagement time within niche segments), and creator migration to multiple platforms (Tiktok offers creators 30% higher earnings, which leads to the migration of top creators). These issues are interconnected—user homogeneity limits commercialization potential, pushing the platform to strengthen advertising monetization, which in turn increases content ecosystem regulatory risks; meanwhile, logistics shortcomings weaken the e-commerce closed-loop, forcing creators to move to platforms with stronger monetization capabilities.

Xiaohongshu is building a comprehensive AI-driven strategic system to systematically address the multiple challenges the platform faces. In terms of optimizing the user structure, the platform uses deep learning to create a male user interest graph and generates over 3,000 pieces of male-oriented content such as 3C product reviews daily using AIGC. Alongside this, the "Creator Scout System" has resulted in a 15% monthly growth in male KOCs. To tackle logistics shortcomings, the platform has developed an intelligent fulfillment system, including AI-powered pre-set warehouses that increase next-day delivery coverage to 78%, dynamic routing algorithms that reduce delivery time by 18%, and a return prediction model that reduces return rates by 27%. In response to regulatory pressures, the upgraded "Tianjing" review system integrates LLM capabilities to identify new types of soft advertising, achieving 95% preemptive interception of problematic content. In terms of competition defense, the multi-modal detection algorithm can identify 92% of false content, and the UGC quality model increases the exposure of high-quality content by 40%. The platform also developed a "Creator Loyalty Algorithm" to maintain 73% exclusivity for content. For the creator ecosystem, the "Creation Brain" system enhances creation efficiency by 50%, the multi-platform adaptation engine preserves content uniqueness, and the game theory-based revenue model improves the retention rate of top creators by 28%.

4. Conclusion

This study provides an in-depth analysis of Xiaohongshu's competitive strategy and development path under the impact of multi-purpose platforms. The research finds that Xiaohongshu has created a unique competitive advantage by building three barriers: "high-trust UGC + AI-driven precise matching + differentiated e-commerce." The platform's proprietary CES algorithm and intelligent word-expansion system have improved content matching efficiency by 40% and commercial conversion rates by 25%, while maintaining an authenticity rating of 7.9 (out of 10) for UGC content. This verifies the key role of technology-driven approaches in the development of vertical social platforms. These practices not only provide solutions for Xiaohongshu to address current challenges but also enrich empirical research on platform competition theory in building "algorithm + culture" dual barriers.

The research reveals Xiaohongshu's innovative practices in balancing commercialization with community ecology. Through a traffic equity mechanism (allocating 50% of traffic to medium and long-tail creators) and strict content governance (with a 900-dimensional review system), the platform has maintained a good user experience despite a commercialization rate of 35%. In particular, the application of the "reverse funnel marketing model" and AIGC creation tools has increased creator efficiency by 40%, effectively alleviating content supply pressure. These experiences provide valuable insights for vertical social platforms in exploring a composite development model of "technology-driven moat + cultural identity."

Looking ahead, Xiaohongshu is poised to achieve higher-quality development through continuous technological innovation. Key areas include: deepening AI applications, developing a hybrid governance system combining "generative AI + human review"; expanding the male user market with the goal of increasing penetration to 40% within two years; and optimizing logistics experiences, aiming to reduce delivery time to 1.8 days within one year. These initiatives will drive Xiaohongshu toward becoming a global benchmark for "smart social e-commerce" while providing valuable insights for decentralized community operations in the Web 3.0 era. As AI technology evolves, Xiaohongshu's development practices will continue to inject new vitality into the vertical social platform industry.

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