

A Study on the Impact of Tencent Venture Capital's Involvement on the Coordinated Optimization of Kuro Technology's Marketing and Publicity Strategy and Big Data–Driven Public Opinion Monitoring System

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Abstract: With the rapid development of the global Internet and social media, digital marketing and brand communication have become core competitive dimensions for enterprises in the online sphere. Based on multiple theoretical frameworks and taking Guangzhou Kuro Technology Co., Ltd. as a case study, this research delves into the synergistic optimization effect of Tencent Venture Capital's involvement on the company's marketing and publicity strategy and its big data–driven public opinion monitoring system. We construct a “Capital–Publicity–Opinion Monitoring” collaborative optimization theoretical model to reveal how Tencent Venture Capital alleviates corporate funding bottlenecks, integrates marketing resources, and establishes an efficient early-warning mechanism. The findings indicate that Tencent's capital infusion not only propels Kuro Technology's promotional strategy and public opinion monitoring but also exhibits common efficacy across different sectors. This study offers theoretical guidance and practical insights for game developers and other digital marketing enterprises undergoing strategic transformation under capital support.

1 INTRODUCTION

In recent years, the gaming industry has faced significant challenges in research and development, market promotion, and public opinion management. Founded in 2017, Guangzhou Kuro Technology Co., Ltd. (KURO GAMES) is an Internet cultural enterprise dedicated to developing ACG-style games and incubating original intellectual properties. Leveraging its flagship title Punishing: Gray Raven and the open-world game Capital - Publicity - Public Opinion Monitoring, the company quickly rose to prominence in the ACG market. At the end of 2024, Tencent, through one of its wholly owned subsidiaries, strategically increased its stake in Kuro Technology—raising its controlling interest above 51% and injecting substantial capital (equity changes shown in Figure 1). While internal capital allocation is critically important, external factors—such as market competition, regulatory environment, and

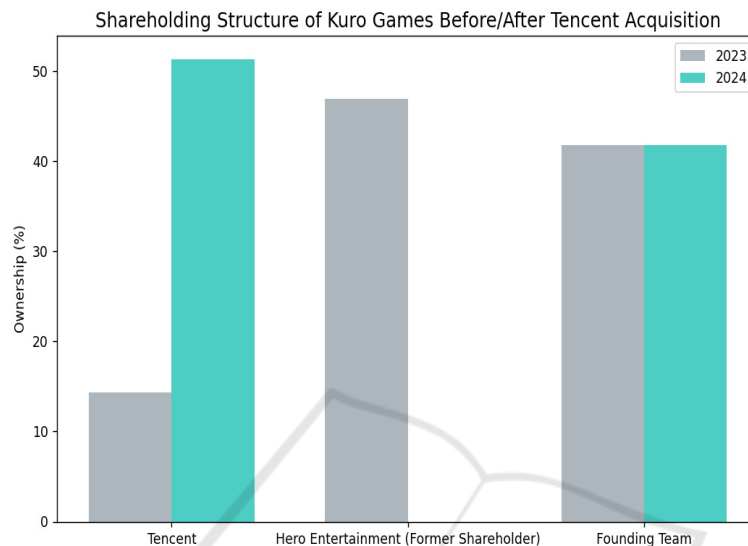
industry dividends—must also be considered (Graham et al., 2011). Moreover, Tencent's investments in other sectors, including e-commerce and education, have similarly demonstrated advantages in resource integration, providing a valuable cross-industry comparison for this study. At the same time, public opinion monitoring—as an integral component of digital marketing—requires an in-depth examination of its technical implementation, early-warning mechanisms, and operational procedures.

This paper aims to explore the comprehensive impact of Tencent's capital involvement on Kuro Technology's marketing and publicity strategy and its big data–driven public opinion monitoring system, and to construct a “Capital–Publicity–Public Opinion Monitoring” synergistic optimization theoretical model. The significance of this research is mainly reflected in three points. First, to clarify how Tencent's capital support and resource integration drive the upgrading of corporate marketing strategies

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and enhance brand communication effectiveness; second, to reveal the specific mechanisms by which Kuro Technology leverages big data technologies to build a public opinion monitoring system that enables real-time alerts and crisis response; third, through cross-industry cases (such as Tencent's investments

in the e-commerce and education sectors), to validate the model's universality and provide theoretical support and practical pathways for other digital marketing enterprises undergoing strategic transformation following capital involvement.



Data source: Tianyancha, Hero Entertainment Announcements

Figure 1: Shareholding Structure of Kuro Games Before/After Tencent Acquisition.

This study is grounded in three major theoretical frameworks. First, the Resource-Based Theory holds that a firm's core competitive advantage derives from unique and hard-to-replicate internal resources; Tencent's capital and channel assets have thus helped Kuro Technology establish significant competitive barriers. Second, the Integrated Marketing Communications Theory emphasizes maximizing market impact through multi-channel, unified brand messaging, and Tencent's multi-platform resource integration has underpinned the optimization of Kuro Technology's marketing and publicity strategy. Finally, the Dynamic Capabilities Theory advocates that firms must possess the ability to rapidly sense and respond to changes in their external environment—where a big data-driven public opinion monitoring system serves as a critical tool for dynamically addressing market sentiment.

Moreover, recent empirical studies on corporate digital marketing, public opinion monitoring, and capital operations indicate that, following the infusion of capital support, firms often experience significant enhancements in both their marketing and publicity strategies and their risk early-warning capabilities.

This paper's core issues include the impact of Tencent's capital involvement on Kuro Technology's marketing and publicity strategy and brand promotion, the construction and application of Kuro Technology's big data-driven public opinion monitoring system, and how to build a "Capital-Publicity-Public Opinion Monitoring" synergistic optimization theoretical model based on post-acquisition practices by Tencent.

The research objectives are: through qualitative data analysis, to clarify the specific effects of Tencent's capital involvement on Kuro Technology's internal marketing and brand promotion; to examine the application effectiveness of the big data public opinion monitoring system in crisis early warning and brand maintenance; and to construct and validate a cross-industry universal "Capital-Publicity-Public Opinion Monitoring" synergistic optimization model, providing theoretical guidance for digital marketing and brand management.

2 MECHANISTIC ANALYSIS OF SYNERGISTIC OPTIMIZATION BETWEEN CAPITAL PARTICIPATION AND KURO TECHNOLOGY'S MARKETING STRATEGY AND BIG DATA PUBLIC SENTIMENT MONITORING SYSTEM

2.1 Capital Advantage and Resource Integration

The infusion of Tencent's capital directly resolved Kuro Technology's funding bottlenecks in R&D and market promotion. For example, the open-world game *Wuthering Waves*, which Kuro Technology had been developing for several years, generated over RMB 200 million in global revenue on its first day of launch, demonstrating how ample funding can significantly accelerate market rollout. In addition to financial support, Tencent brought abundant channel resources and brand influence. By leveraging Tencent's own platforms-WeChat, QQ, Tencent Video, and others-Kuro Technology achieved cross-channel resource integration, thereby forming a unique marketing network. According to Resource-Based Theory, a firm's sustained competitive advantage stems from resources that are both unique and difficult to imitate; Tencent's capital and channel resources thus constitute the key factors that enabled Kuro Technology to stand out in the competitive landscape.

2.2 Brand Trust and Market Expansion

Another notable effect of Tencent's majority stake in Kuro Technology has been the enhancement of the company's brand trust. As an industry authority, Tencent's investment provided powerful brand endorsement, fostering consumer and partner confidence in Kuro's products. Drawing on Integrated Marketing Communications Theory, Kuro Technology-backed by Tencent-implemented a coordinated online-and-offline, multi-channel promotional strategy, rapidly expanding its market reach through advertising campaigns, KOL partnerships, and live-streamed promotions. According to available data, following Tencent's acquisition, Kuro's new game *Wuthering Waves* amassed nearly 30 million users worldwide in its first

week, underscoring the role of brand trust in driving market expansion. Moreover, *Wuthering Waves* demonstrated sustained growth by June 2024, ranking among the top three global ACG mobile games by revenue and claiming the number one spot in the South Korean ACG mobile market.

2.3 Data Collection and Intelligent Processing for Public Opinion

In today's information-explosive era, precise collection and analysis of public opinion data are critical for enterprises (Lan & Xu, 2020). By leveraging public opinion cloud-data platforms-such as Alibaba Cloud Dataworks and Tencent Cloud TI-ONE-real-time data are harvested from over 80,000 websites, more than 5,600 forums, in excess of 300 million Weibo accounts, and over 25 million WeChat accounts. Natural Language Processing (NLP) techniques are then applied to this enormous corpus of text for semantic parsing and sentiment analysis. Mature early-warning mechanisms for online public opinion crises-built on Analytic Network Process (ANP) and stochastic Petri nets (Tian et al., 2023)-operate by first filtering enterprise-related data via predefined keywords, then computing a sentiment index for each piece of text with thresholds (for instance, designating sentiment scores above 0.7 as high-risk negative content), and finally employing clustering algorithms to aggregate and organize emerging hotspots, thus pinpointing major events and their primary sources of negative information.

2.4 Early-Warning Mechanism and Decision Feedback

The early-warning mechanism is a crucial component of the public opinion monitoring system. An alert system is established by setting thresholds based on sentiment scores and topic popularity; once sustained negative sentiment exceeds these thresholds, a warning is triggered. Representative studies suggest that the growth pattern of online public opinion follows a logistic curve, divided into incubation, early diffusion, late diffusion, and recession phases (Xing & Li, 2020). If public opinion can be extinguished during the early diffusion phase, the spread of negative sentiment can be effectively contained. Moreover, since rumors and doubts grow most rapidly at the outset, suppressing public opinion early on is of paramount importance (Wang et al., 2013). When the 1.2 version of *Wuthering Waves* was newly launched, negative comments about in-game event anomalies and frame drops surged, and discussions of

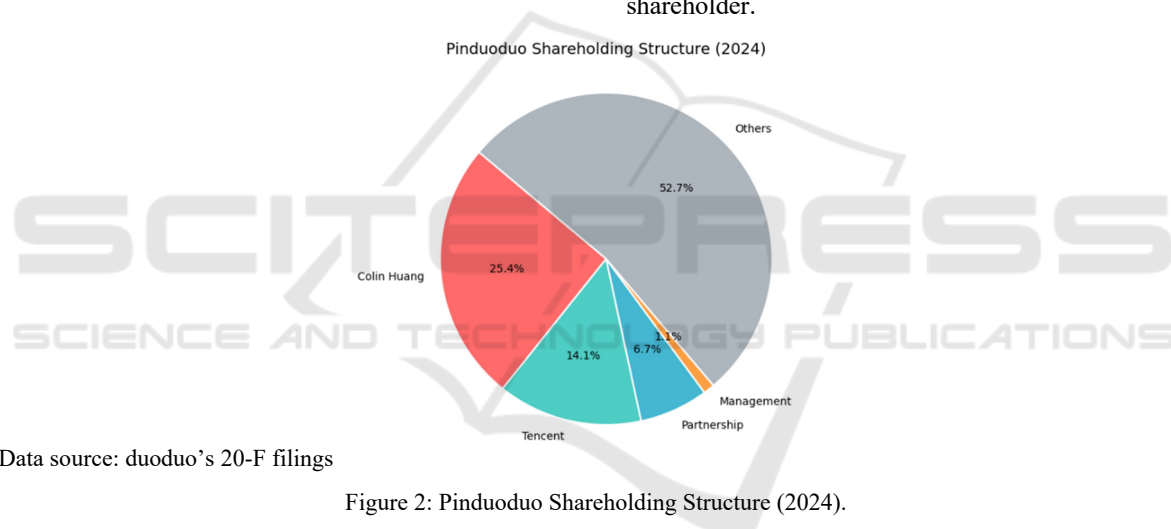
these issues spiked rapidly across social platforms. The warning system generated an alert report and sent notifications to both the PR and technical teams. Upon receiving the warning, the PR team issued an official statement the same day, while the technical team promptly optimized server performance and released compensation emails along with an apology announcement. Subsequent monitoring showed that negative sentiment dropped swiftly, and discussion volumes stabilized, effectively averting an escalation of the crisis and earning recognition from many players.

This concrete early-warning and feedback process vividly demonstrates the practical value of a big data-driven public opinion monitoring system in corporate crisis management and also validates the effectiveness of Dynamic Capabilities Theory in practice.

2.5 Model Validation Through Case Studies and Industry Insights

In the construction of the "Capital-Publicity-Public Opinion Monitoring" model, this paper has primarily analyzed the case of Kuro Technology; the following section will validate the model's universality through cross-industry comparisons.

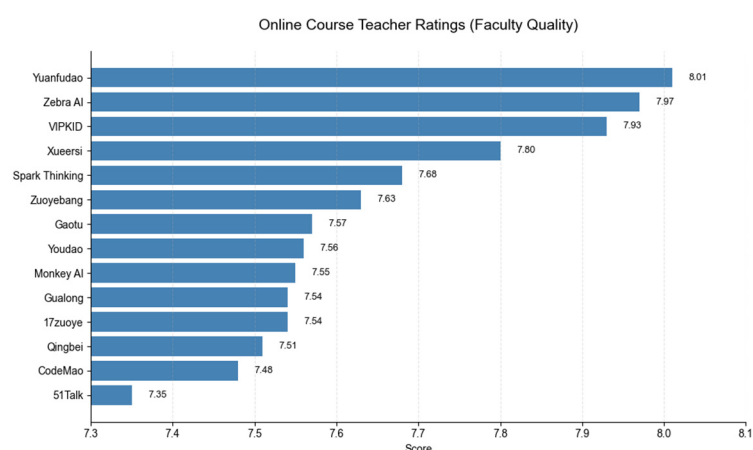
The first case comes from the e-commerce sector-Pinduoduo. Tencent's strategic investment in Pinduoduo was not limited to simple equity increases (Figure 2 for the shareholding structure); rather, by providing capital support, integrating channels, and driving brand promotion, Tencent enabled Pinduoduo to achieve remarkable success in user acquisition and market expansion. Pinduoduo first secured Tencent's investment in 2016, and in April 2018 it received a \$3 billion financing round led by Tencent. Subsequently, Tencent became Pinduoduo's second-largest shareholder.



From its inception, Pinduoduo chose WeChat-a widely adopted social media platform-as its primary traffic gateway, fully leveraging WeChat's massive user base and social networking features to rapidly achieve viral user growth in its early stages. Through strategic collaboration with Tencent, Pinduoduo also gained access to WeChat's traffic and technical support, which further accelerated its development. According to statistics, over 90% of Pinduoduo's users access the platform via WeChat.

The second case study pertains to the online education sector, focusing on Yuanfudao. In this domain, Tencent's capital investment has significantly propelled the promotion of online courses and the establishment of brand recognition for Yuanfudao. Leveraging data platforms, the company conducts real-time monitoring of user

feedback and course evaluations, enabling swift responses to user needs by adjusting teaching content and promotional strategies accordingly. This approach mirrors Kuro Games' practices in public opinion monitoring, exemplifying the synergistic optimization logic of the "Capital-Publicity-Public Opinion Monitoring" model. A comparative analysis of metrics such as user growth, frequency of course/product updates, and efficiency in handling negative public opinion-illustrated in Figure 3-demonstrates that, according to the "2020 China Online Education Market White Paper and 2021 Outlook Report" published by the Chinese Academy of Sciences, Yuanfudao ranked highest in online course quality ratings that year, receiving widespread acclaim.



Data source: White Paper on Online Education Online Course Market in China in 2020-A Forward-looking Report in 2021.

Figure 3: Ranking of online teaching levels across platforms (2020-2021).

Through cross-industry case comparisons, it becomes evident that enterprises in sectors such as gaming, e-commerce, and online education exhibit several common characteristics following capital investment. For instance, financial backing facilitates the integration of internal resources; multi-channel promotional strategies are optimized; and big data-driven public opinion monitoring systems enable companies to promptly capture market feedback and make necessary adjustments.

3 MECHANISM ANALYSIS

3.1 Analysis of the Synergistic Optimization Mechanism

Based on the preceding analysis, this study constructs a synergistic optimization theoretical model comprising three interrelated layers: the capital layer, the publicity and distribution layer, and the public opinion monitoring layer. These layers form a mutually supportive and dynamically responsive closed-loop system within enterprise operations.

At the capital layer, the resource-based theory posits that a firm's core competitiveness stems from unique and inimitable resources (Battisti et al., 2022). Tencent's capital injection into Kuro Games not only provided essential financial support but also brought extensive channel and brand resources. This investment addressed Kuro Games' funding shortages in the development and marketing of the "Wuthering Waves" project-particularly critical given that, at the time, Kuro Games had only one profitable mobile game and limited resources for long-term projects.

Furthermore, by integrating Tencent's channel resources, Kuro Games achieved cross-platform marketing and resource sharing, enhancing its market reach and operational efficiency.

At the publicity and distribution layer, the theory of Integrated Marketing Communications (IMC) advocates that enterprises can maximize their market influence through coordinated and consistent brand messaging across multiple channels (Porcu et al., 2012). With Tencent's support, Kuro Games integrated both online and offline promotional resources, employing strategies such as advertising placements, collaborations with key opinion leaders (KOLs), and operations on social media platforms like WeChat and Bilibili. This comprehensive, multi-faceted brand promotion system enabled Kuro Games to rapidly expand its market share.

Regarding the public opinion monitoring layer, the dynamic capabilities theory emphasizes that various dimensions of dynamic capabilities compel enterprises to continually build and update their resources and assets to swiftly respond to changes in the external market environment (Teece, 2014). Kuro Games can establish a real-time public opinion monitoring system to accurately analyze and provide early warnings on online public sentiment, thereby offering timely feedback for corporate decision-making and achieving crisis prevention and brand maintenance.

3.2 Analysis of the Synergistic Feedback and Continuous Optimization Mechanism

In the "Capital - Publicity - Public Opinion Monitoring" model, the core is the close collaborative

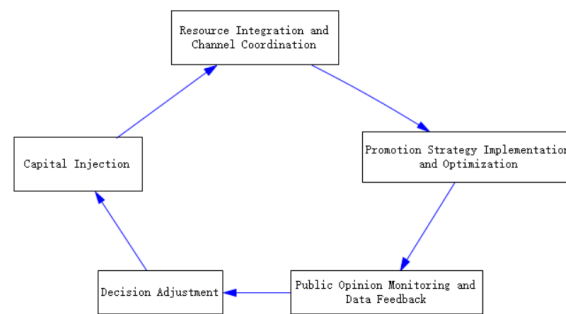


Figure 4: The positive feedback loop diagram between "capital - promotion - public opinion monitoring".

feedback relationship between the three levels, forming a dynamic optimization closed-loop system as shown in Figure 4.

The capital injection part refers to the financing from Tencent, which provided Kuro Technology with sufficient funds and related channel resources, thus ensuring the foundation for subsequent product development and marketing strategies.

The next phase is the implementation of marketing strategies, which refers to the use of multi-channel marketing strategies to carry out comprehensive brand promotion under the support of capital. At the same time, a large amount of user feedback and market data generated during the promotion process is collected in real-time.

The final part is the public opinion monitoring feedback, where the big data public opinion monitoring system analyzes the collected data using intelligent algorithms (Bi et al., 2023) and promptly transmits positive and negative public opinion information and market feedback to the decision-making level. If there are signs of negative public opinion or a decline in promotion effectiveness, the company can quickly adjust its market strategy or technical solutions.

Finally, decision adjustment and reinvestment. Based on public opinion monitoring feedback, the company adjusts its marketing strategy, optimizes product features, and reinvests the relevant improvements into capital for reuse, thereby achieving the recycling of funds and resources, and forming a positive feedback loop between the "Capital - Marketing - Public Opinion Monitoring" layers.

3.3 Potential Negative Impacts of Capital Intervention

Although Tencent's capital intervention has brought significant advantages to Kuro Technology, it is also important to be aware of its potential risks. Specifically, as the controlling shareholder, Tencent

may use its capital influence on steer Kuro Technology's product development or market strategies toward Tencent's ecosystem, thereby weakening the company's innovation flexibility and independence. Previous studies have pointed out that excessive reliance on a single capital source can suppress the long-term innovation capacity of small and medium-sized enterprises (Zhang and Zhou, 2024). This issue is particularly concerning in the highly competitive and highly consolidated gaming industry. As a "rising star" in the two-dimensional (2D) field, Kuro Technology's management style may conflict with Tencent's more group-oriented, hierarchical operational model. If the two parties fail to integrate effectively in terms of management philosophy, decision-making processes, or team collaboration, it could lead to internal friction, affecting team cohesion and company execution efficiency. Additionally, over-reliance on external capital may reduce the company's ability to withstand risks (Zhu, 2023). If future capital support decreases or the partnership ends, Kuro Technology could face risks such as a broken capital chain or difficulties in market expansion. Furthermore, capital intervention may lead the company to focus excessively on short-term profits, neglecting long-term technological accumulation and the development of user ecosystems.

4 CONCLUSION

This paper adopts case analysis and cross-industry comparison methods to conduct an in-depth analysis of the synergistic optimization effect of Tencent's capital intervention in Kuro Technology's marketing strategy and big data public opinion monitoring system. It concludes that Tencent's capital intervention significantly drives the upgrading of the company's marketing strategy and the construction of the public opinion monitoring system. It further

elaborates that Tencent's capital intervention not only alleviates the company's financial bottlenecks but also enhances the company's market influence and brand trust through resource integration and brand endorsement, as exemplified by the excellent market performance during the launch of Mingchao.

It is recommended that enterprises, when introducing capital, should focus on maintaining innovation flexibility and independence, avoiding over-reliance on a single capital source to ensure long-term sustainable development. Looking ahead, with the continuous development of digital marketing and big data technologies, the synergistic optimization model of capital, marketing, and public opinion monitoring is expected to be applied and validated in more industries, providing more comprehensive strategic transformation guidance for enterprises. However, this study also has limitations, mainly in the selection of cases, which may affect the generalizability of the conclusions. Future research could expand the sample scope and further explore the applicability and differences of this model in various industries and different-sized enterprises.

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