

Analysis of a Digitally Driven Business Model and Its Lessons — A Case Study of Luckin Coffee

Yuanhang Qu

Yuan Hengjia High school, Chong Qing, China

Vergil19891213@gmail.com

Abstract. Luckin Coffee’s trajectory—from explosive growth in its early years, through bankruptcy restructuring following a financial fraud scandal, to achieving comprehensive profitability and continued expansion—constitutes a landmark case in China’s new-consumption sector. This paper focuses on Luckin’s OMO (Online Merge Offline) new-retail business model, which is characterized by “technology-driven, data-enabled, highly efficient operations,” and, drawing on its latest financial figures (total revenue of RMB 24.903 billion in 2023 and net profit of RMB 2.848 billion) and operational practices, systematically analyzes its core competitive advantages, success factors, and potential challenges. The study finds that Luckin has restructured the coffee consumption chain around digitalization, building unique business barriers through deep private-domain user operations, extreme supply-chain efficiency, and agile product innovation. Its experience offers important references for the digital transformation of traditional retail and the globalization of Chinese brands, while also revealing critical pathways for new-consumption brands to achieve sustainable development in the digital era.

Keywords: Restructure, Digitization, Management, Business Model, Supply Chain.

1. Introduction

Founded in 2017 with the ambition of “becoming China’s largest coffee chain brand,” Luckin Coffee launched rapidly. It employed a “first cup free” subsidy strategy and a “dense store openings + online pickup/delivery” model, using capital to capture substantial market share in China. Its expansion was astonishing: within just 18 months, it successfully listed on Nasdaq, setting a record for one of the fastest IPOs. However, the financial-fraud scandal exposed in early 2020 caused that balloon of rapid growth to burst. The company faced huge fines, was forced to delist, experienced management upheaval, suffered severe reputational damage, and even filed for bankruptcy protection [1].

When many presumed Luckin would not recover, it staged a comeback. Luckin rebuilt itself by replacing management, restructuring debt, closing inefficient stores, refocusing on its core business, and strengthening digital operations. On the ruins of its former model, the company began a difficult process of reconstruction. Its strategic focus shifted from pursuing rapid scale to emphasizing profitability and operational efficiency. This strategic transformation produced notable results: since 2021 Luckin has reported consecutive profitable quarters, its store count steadily recovered and surpassed pre-crisis levels (reaching 16,218 stores as of the end of 2023), and the company achieved record revenue and profit in 2023 (total revenue RMB 24.903 billion, year-on-year growth 87.3%; net profit RMB 2.848 billion). These outcomes made Luckin the coffee chain with the largest number of stores in China. Luckin’s phoenix-like rebirth is not only an expression of corporate resilience but also strong evidence of the value of its distinct digital business model. Studying Luckin’s model is therefore important for understanding new-retail development trends in China and for exploring how brands can resurrect themselves after crises [2].

2. Core Pillars of Luckin’s Business Model: A Digitally Driven OMO New Retail

Luckin’s successful turnaround stems from constructing and continuously optimizing an OMO new-retail model whose underlying logic is digitalization and deep online-offline integration. This model centers on three core elements: users, supply chain, and product.

2.1. User Operations: Building Deep Private-Domain Traffic and Fine-Grained Management

Luckin’s app and mini program served as the primary user entry points and played a key role. From the outset, the company abandoned traditional paper menus and cash registers, integrating transactions, interactions, and membership systems entirely within its proprietary app and mini program. This allowed Luckin to naturally capture full-funnel user behavioral data—order patterns, flavor preferences, purchase frequency, and geolocation—providing a solid foundation for precision marketing and operations.

Luckin initially used a “traffic-pool” mindset and social viral strategies—for example, early viral acquisition through “invite a friend, both receive a cup” mechanics to quickly acquire users. Today, Luckin focuses more on reactivating its existing user base through refined membership management, enterprise API partnerships, and IP co-branding activities, among other approaches, to increase repurchase rates and user stickiness. With strong data analytics capabilities, Luckin implements data-driven personalized outreach—for instance, targeted coupon pushes and product recommendations that are personalized at scale (the so-called “thousand-people/thousand-faces” approach)—significantly improving marketing efficiency and user satisfaction. Its large, active private-domain user base constitutes a core barrier that helps reduce reliance on external platforms.

2.2. Supply Chain and Operations: Extreme Efficiency and Cost Control

Enabled by technology, Luckin’s “people-find-goods” model differs from traditional cafés like Starbucks that emphasize the “third place” experience. Luckin’s stores (mostly quick-pickup formats) are small, have few seats, and are sited flexibly—e.g., lobbies of office buildings in core business districts, transport hubs, and residential communities—so their primary function is fast fulfillment. This significantly lowers rent and fit-out costs. Luckin implements intelligent store management: stores follow highly standardized operating procedures and employ automated equipment (e.g., fully automatic coffee machines), simplifying production steps, reducing dependence on highly skilled baristas, and improving speed and product consistency.

A powerful back-office system can monitor store operational data in real time (inventory, sales, efficiency), enabling intelligent staffing, precise ordering, and dynamic pricing. Through a light-asset, high-efficiency operational model and by leveraging app pre-ordering and intelligent dispatching, Luckin smooths peak demand, reduces customer wait times, and optimizes labor allocation. This “small-store, high-sales-per-square-meter, fast-turnover” model is key to Luckin’s ability to scale profitably. In 2023, the operating margin at its self-operated store level reached 25.2%, demonstrating the health of its single-store economics.

2.3. Product Strategy: Data-Driven Agile R&D and Hit-Product Creation

Luckin’s “Little Blue Cup” standardization underpins its core products (e.g., Americano, Latte), using a unified coffee-bean formula and production standard to ensure baseline quality and to enable scalable expansion. One of Luckin’s central competitive strengths is its data-driven hit-product development mechanism and rapid new-product iteration. Its R&D team—led by multiple World Barista Championship (WBC) champions—does not work in isolation but deeply integrates front-end sales data, user reviews, and social-media trends for idea generation and flavor testing. The cycle from concept to launch is short—on average about 20 days. Luckin ignites the market through a strategy of high-frequency new launches and cross-brand collaborations; it introduces over 100 new items annually and skillfully uses IP co-branding (e.g., with brands such as Yedao, Moutai, Line-tail

dog, Tom and Jerry) and seasonal limited editions (e.g., cherry-blossom season, Christmas) to create buzz, social sharing, and buying frenzies. In 2023, the phenomenon-level “sauce-aroma Moutai Latte” achieved single-day sales of over 5.42 million cups and generated revenue exceeding RMB 100 million, becoming the year’s benchmark blockbuster. This “fast, accurate, new” product strategy continuously draws consumer attention, creates consumption highlights, and helps offset fatigue toward coffee as a functional beverage[1].

3. Analysis of Model Advantages and Success Factors

Luckin’s digital OMO model successfully fuses internet thinking with traditional retail, producing distinct competitive advantages:

3.1 Improved User Experience

Luckin offers convenient online ordering (locking in demand in advance), flexible pickup and delivery options (suited to fragmented time use), transparent pricing, a steady stream of new items, and personalized offers—measures that substantially enhance consumer convenience and satisfaction.

3.2 Operational Efficiency and Cost Advantages

Digital management runs across Luckin’s entire value chain, markedly improving store efficiency, inventory turnover, and labor productivity. Its light-asset small-store model effectively controls two of the foodservice industry’s heaviest cost items—rent and labor—thereby providing room for highly competitive pricing (average transaction value roughly RMB 15–20) and a solid profitability foundation.

3.3 Data-Driven Precision Decision-Making

Luckin bases decisions—site selection, product assortment, pricing, marketing, and supply-chain management—on real-time, multi-dimensional data feedback. This approach reduces trial-and-error costs and improves resource allocation precision and market responsiveness, which underpins Luckin’s ability to continually produce hit products and optimize operations [2].

3.4 Building Brand Resilience

Luckin’s deep private-domain traffic pool was crucial to its rapid recovery after the crisis. This reduced dependence on external traffic platforms (e.g., third-party delivery platforms) and established a more direct, stable connection with consumers. By sustaining product innovation and service improvements, Luckin gradually rebuilt consumer trust and shifted its brand image from “fraud” to a national coffee brand associated with tasty, affordable, and fast product renewal [3].

4. Challenges and Future Outlook

Although Luckin achieved a successful turnaround, its business model still faces multiple concerns:

4.1 Intensifying Competition

China’s coffee market has become a red ocean. International giants such as Starbucks continue to deepen local engagement; domestic challengers (e.g., Manner, Nova Coffee) are expanding rapidly; many tea-drink brands (e.g., HEYTEA, Nayuki) are crossing over to compete; convenience stores (e.g., Family Mart’s Peckish/Pacific chain, Lawson L-Café) and fast-food chains (e.g., McDonald’s McCafé) offer low-priced coffee options. Homogenized competition is rising, and user loyalty is under pressure [4].

4.2 Complexity of Expanding into Lower-Tier Markets

While Luckin’s model has been validated in first- and second-tier cities, expansion into third-, fourth tier and lower markets faces different consumption habits (e.g., acceptance of freshly made beverages and price sensitivity), differences in rent and labor cost structures, and new challenges for supply-chain delivery efficiency. Whether Luckin can replicate its high-efficiency model effectively across these markets remains to be seen [5].

4.3 Sustaining Innovation Pressure

The “high-frequency new launches” strategy is a double-edged sword: it keeps the brand hot but imposes very high demands on R&D capacity, supply-chain responsiveness, and marketing resources. As consumers’ tastes become more discerning, it is uncertain whether Luckin can consistently produce truly attractive blockbuster products.

4.4 Food Safety and Operational Management Risks

Rapid store expansion increases the challenge of controlling food-safety risks, staff training, and consistent standard execution. Any food-safety incident or serious service failure could inflict significant damage on the brand [6].

4.5 Sustainability of the Profit Model

Under fierce market competition, promotional activities remain an important tool for Luckin. Balancing growth, market share, and profitability—avoiding a return to excessive subsidies—requires ongoing refined management [7].

5. Future Directions

Luckin intends to address challenges and pursue sustainable growth through the following measures:

5.1 Deepening the Digital Moat

Luckin will continue to invest in AI and big-data technologies to seek deeper efficiency gains and experience improvements in precision marketing, intelligent site selection, supply-chain forecasting, and new-product R&D [8].

5.2 Exploring Diversification and New Scenarios

While consolidating its coffee core, Luckin will explore category extensions such as baked light meals and tea beverages, and experiment with different store formats (e.g., experience-oriented “Relaxation Stores”) to satisfy a broader range of consumer needs.

5.3 Refining Operations to Penetrate Lower-Tier Markets

Luckin will pursue fine-grained operations tailored to different market tiers—adjusting product mixes, pricing strategies, and store models to achieve effective market penetration [9].

5.4 International Expansion Attempts

After stabilizing domestically, Luckin may test internationalization—its efficient digital model could have potential in emerging coffee markets in Southeast Asia, but it will need to overcome cultural differences, supply-chain management issues, and regulatory/compliance challenges.

5.5 Mphasizing ESG and Brand Rebuilding

Luckin will focus on ESG (environmental, social, and corporate governance) and brand-value reconstruction—strengthening efforts in sustainable development (e.g., eco-friendly packaging), governance transparency, and employee welfare to continue repairing and enhancing brand trust [10].

6. Conclusion

Digitalization is Luckin’s core productive force. Luckin has deeply embedded internet traffic thinking, data-driven decision-making, and agile iteration into every link of traditional coffee retail (user engagement, store operations, product R&D, and supply-chain management), fundamentally restructuring the value chain and generating significant efficiency advantages and cost barriers. Its app-centered private ecosystem, data-driven hit-product mechanism, and intelligent store management are the three technical pillars of its success.

When value-for-money becomes the mainstream consumer demand, Luckin reduces costs through extreme operational efficiency while continually generating consumer excitement through high-frequency, precise new-product R&D—meeting consumer demands for products that are “tasty, affordable, and fun”—thus forming a composite competitive strength that is not easily copied. Even at the depths of its reputational crisis, Luckin’s large, self-owned active user base and a proven profitable single-store model provided critical buffers enabling recovery. This highlights the importance of deeply building user assets and establishing healthy business models. Luckin’s rebirth is essentially a shift from capital-driven “wild growth” to operations-driven “meticulous cultivation.” Its emphasis on profitability, decisive closure of underperforming stores, and strict control of costs and expenses were the crucial turning points that enabled sustainable development.

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