

Innovation and Thinking about Coffee + Internet: Luckin Coffee Case Study

Zirong Wang^{1,a,*}

¹*University of Technology Sydney, Sydney, Australia*
a. Zirong.Wang-2@student.uts.edu.au

**corresponding author*

Abstract: In recent years, the Internet has driven the rapid expansion of the coffee industry. The organic integration of coffee and the Internet has also brought many benefits to the coffee industry and the coffee industry into the new retail era. Taking Luckin Coffee as an example, this article analyzes the three aspects that Luckin Coffee applies in the Internet and big data, including operations, marketing, and product research and development. In the end, it is discovered that the combination of coffee and the internet can improve the competitiveness and growth of the company in the coffee industry.

Keywords: new retail business, internet innovation, Luckin Coffee

1. Introduction

The development of China's coffee industry has gone through six stages, from the entry of Nestle into the Chinese market in 1989, which opened the era of instant coffee, to the current stage of competitive growth of new players. China's coffee industry has shown rapid growth. In addition, the fresh-ground coffee market sector has also expanded year by year. According to the 2022 China Fresh Ground Coffee Industry Research Report released by IResearch Consulting, as of 2020, the market share of fresh ground coffee in China's mainland is 36.5%, and the U.S. and Japan's market shares are 87% and 63.1%, respectively. Although compared with the mature coffee market in the United States and Japan, there is still a gap in China's coffee market. But from another perspective, China's coffee market has a vast development space. At the same time, the rise of the new retail model has also driven the transformation of traditional retail industries such as coffee. The new retail can be defined as a model that allows enterprises to rely on the Internet and use advanced technologies, such as big data and artificial intelligence, to upgrade and transform the production, process, and sales and then reshape the ecological structure and ecosystem, and integrate online and offline [1].

According to the statistical data of the Self-Service Trade Branch of the China Department Store Association, the birth of new retail makes more than 65% of retailers in China eager to complete the transformation before 2021. As the representative of a new coffee retail enterprise, Luckin Coffee has occupied a considerable place in the coffee industry by using the Internet and big data. According to the public data of China Merchants Securities, Luckin Coffee has become the number one coffee brand in China's chain coffee industry. By the second quarter of 2022, Ruixing has reached 7195 stores, covering 29 provinces and 236 cities in China. At this time, the number of

stores Luckin Coffee has led Starbucks by 1000, forming an absolute advantage compared with other brands.

Based on the vast potential development space of coffee and the rise of new retail, this article attempts to analyze how the coffee industry uses the Internet's advantages to drive innovation and development in the coffee industry. This study takes Luckin Coffee as an example. It analyzes and considers the specific performance of Luckin Coffee with the help of existing theories, such as social fission, content marketing, and customer relationship management. The study helps to explore further how the Internet and the new retail business models are organically integrated and complement the business management research framework to improve theoretical research further. On the other hand, taking Luckin Coffee as an example in its new retailer business model can serve as a guide and practice for developing the entire coffee industry.

This study helps to explore further how the Internet and the new retail business model organically integrate and plays a complementary role in the research framework of business management, making the theoretical research more perfect. On the other hand, taking Ruixing Coffee as an example to analyze its new retail business model can play a guiding and valuable role in the development of the entire coffee industry.

This paper first makes a literature review on the theoretical research of the new retail business model. Next, it mainly analyzes the three aspects of Luckin Coffee Internet innovation: operation, marketing, and product research and development. In the end, there is a conclusion about the research results of this paper.

2. Literature Review

In China, concerning the concept of new retail, Jack Ma first mentioned in his speech at the Alibaba Cloud Conference in October 2016 that the era of pure e-commerce will soon end. In the next decade or two, online and offline logistics will inevitably combine to create new retail. Chen and Cheng pointed out that with the change in society, consumers have higher requirements for commodities and matching. The traditional retail industry needs to adapt to the current business environment, forcing the transformation and upgrading of conventional retail enterprises. On this basis, the new retail industry emerged as the times required and became a new business form of the retail industry [2]. The number of new retail enterprises is rising, the new retail industry chain is also expanding rapidly, and its user value has been improved. It is estimated that in 2022, China's market size will reach 1.8 trillion yuan or more, with great development potential [3]. Japanese scholar Masao put forward the new "retail wheel" theory in 1996, which became the basis for developing the new retail theory [4]. Scholars Piotrowicz and Cuthbertson pointed out that there is a link between the physical retail industry and the e-commerce industry. If the two can be combined, it can bring customers different shopping experiences [5].

With the new retail model becoming increasingly mature, the traditional retail industry is gradually transforming into a new retail industry. The new retail industry can promote the optimization and reform of the traditional retail sector, better meet the growing needs of consumers, and bring a more diversified experience to consumers.

3. Operational Analysis

In the operational aspects, Luckin Coffee has effectively combined with the Internet, such as pioneering the coffee industry's new retail business model and self-operated by e-commerce, which can help Luckin Coffee increase the user experience value, improve the business operational efficiency and management level, thereby improving the competitiveness and profitability of the enterprise.

3.1. Business Model

Luckin Coffee has broken the traditional business model of the coffee industry and created a new retail business model. The essence of new retail is the reconstruction of “people, goods, and market”. Luckin Coffee combines these elements, including digital tool empowerment, online and offline combination, and retail service platform model, to realize the new retail operation.

The first is the empowerment of digital tools, which includes empowerment for customer relationship management, commodity selection, and stores and supply chain. In terms of empowerment for customer relationship management, Luckin Coffee has achieved a 100% cash-free environment, and all transactions are completed online. Customers can view the coffee-making process and find the nearest stores through the Luckin Coffee app. Furthermore, Customers can receive the updated status of the order in real-time to take the coffee on time. It is worth mentioning that when users use the app, Luckin Coffee will use extensive data analysis and artificial intelligence functions to collect user's behavior data and transaction data, applying the collected data to the dynamic pricing model. Luckin Coffee's dynamic pricing model refers to the fact that Luckin Coffee will provide different discount coupons for customers with varying preferences of consumption in combination with customers' previous consumption behaviors promoting customers' consumption. This will lead to different prices for users to buy the same variety of coffee. For example, to promote the consumption of users who have not logged in to the app for a long time, the system will automatically give 9.9 RMB of coffee coupons on these users' apps so that these users can drink coffee at a lower price. Secondly, Luckin Coffee empowers commodity selection. Through app data, Luckin Coffee can more accurately analyze customers' needs and preferences to accurately recommend their favorite products for different users to stimulate consumption. For example, the Luckin Coffee app has a function of “Guess what you like” under “My favorite”, meaning that Luckin Coffee will recommend the products that users may like through their order information, thus stimulating their consumption. In addition, Luckin Coffee also empowers stores and the supply chain. The location of Luckin Coffee store depends on the Internet and big data. By referring to the data of Luckin Coffee's app and the thermodynamic diagram of delivery orders, the digital location is implemented to make the store location more appropriate to users' needs.

Additionally, Luckin Coffee has built an intelligent supply chain management system in which the smart scheduling system can automatically arrange employee shifts and order allocation, optimizing labor management. And the intelligent inventory system can accurately provide a demand forecast, analyze the current inventory level, and order directly from suppliers if necessary. With the effective supply chain management system empowerment, Luckin Coffee reduces procurement costs and improves operational efficiency(Source: Tianfeng Securities).

The second feature is the combination of online and offline. Luckin Coffee adopts the sales model of placing orders online and taking goods offline. First, Luckin Coffee has no offline cash environment, unlike the traditional coffee shop, which needs offline order self-collection. All orders are transacted online, which not only saves customers' time but also improves the operational efficiency of the store. In addition, there are two ways to pick up the goods, one is takeout, and the other is delivery. Users can order in the WeChat applet or the Luckin Coffee app and then choose the takeout mode, going to the store to exchange coffee with the Quick Response (QR) code. If a user chooses the delivery mode, he can order coffee on the Luckin Coffee app or go to the delivery platform, Meituan or Eleme. It is worth mentioning that Luckin Coffee, to ensure the taste of coffee, cooperates with Shunfeng (SF) and promises to deliver the order within 30 minutes. In addition, Luckin Coffee has three types of stores: pick-up, relax, and franchise stores (the delivery kitchen

stores have been closed in the past two years). After placing an online order, users can pick up coffee in these three stores nearby.

Additionally, Luckin Coffee's store expansion strategy mainly focuses on small size and low-rent pick-up stores. As the cost is reduced, the price of coffee is also reduced, which also helps to make Luckin Coffee cost-effective. Nowadays, Luckin Coffee has become the number one coffee brand in China's chain coffee brand. By the second quarter of 2022, Luckin Coffee stores reached 7195, covering 29 provinces and 236 cities. (Source: China Merchants Securities)

In addition to the above two new retail features, Luckin Coffee also widely uses the retail service platform model. For example, in January 2020, Luckin Coffee released the "EXPRESS" of the unmanned coffee machine in the intelligent retail strategy. Luckin Coffee claims that the quality and taste of the coffee EXPRESS produces are the same as those sold in stores. Unmanned retail terminals will cover offices, campuses, airports, and other places to supplement existing stores. In addition, the current stores of Luckin Coffee can be used as the front warehouse of the unmanned retail terminal. If there is a shortage of raw materials, they can be replenished through the stores.

Additionally, the terminals of EXPRESS are equipped with an AIOT intelligent Internet of Things quality control system, which can monitor the production of each coffee machine and cup of coffee to ensure that all coffee maintains the same quality produced by the store. It can be seen from this that Luckin Coffee has the characteristics of space platform-based. Each unmanned coffee machine is equivalent to a small platform, monitored by the AIOT intelligent Internet of Things quality control system in real-time to achieve the same quality, thus bringing consumers a high-quality and more convenient shopping experience (Source: 36 Kr; LogTV).

3.2. E-commerce Self-operation

The e-commerce self-operation means Luckin Coffee only sells its product (not limited to coffee) and operates this area in its app or WeChat applet. Luckin Coffee entered the market by selling coffee drinks. With its scale and flow reaching a certain level, it also launched its e-commerce in its apps and WeChat applet to expand its product range. So far, the products sold by Luckin Coffee in the e-commerce field are all related to coffee elements, including various coffee types (freeze-dried coffee, drip coffee, coffee extraction, coffee beans) and peripheral coffee products. In addition, Luckin Coffee also relies on the platforms of JD and Tmall to open flagship stores and sell its related proprietary products. This will help to realize flow diversion between the two sides and open up new development space for new coffee retail.

Furthermore, Luckin Coffee will launch limited customized products with brand spokespeople to attract potential customers (the flow of spokespeople fans) and further open up the popularity of its brand products. For example, Lucky Lucky and JD and Tmall released the peripheral products, blind boxes for Antler Cup+Meet Haoran Series, and there are only 39000. The sales principle is that a person buys a Luckin Antler cup and could randomly obtain a Luckin blind box - Meet Haoran series blind box. The product generated many orders within one hour of its launch, resulting in an app crash. According to 36 Kr, for 30000 Antler cups, the wholesale cost can be controlled at about 28 yuan per cup. Combined with the sales volume of Luckin Coffee this activity, its profit is about 4329000 RMB. (Source: 36 Kr)

Luckin Coffee has broken through the retail model of the traditional coffee industry and has become the leader and pioneer of the "new retail" business model of the coffee industry. The coffee industry can effectively empower technology to the whole coffee industry chain through Internet technology. Consumers can enjoy a more convenient and high-quality shopping experience in this process. Various coffee brands can also improve operation and management efficiency through Internet technology, reducing costs. Additionally, self-operation by e-commerce allows coffee firms

to give full play to the power of the Internet platform and social media marketing, attract more consumer groups for their brands, improve their competitiveness, and create more profits.

4. Marketing Analysis

In terms of marketing analysis, Luckin Coffee actively uses the Internet to expand its popularity and uses social fission and content marketing to attract more customers and improve users' transaction volume.

4.1. Social Fission

First, before introducing social fission, it is necessary to mention virus marketing. Compared with traditional marketing methods, virus marketing can spread information more widely and faster at a lower cost through digital word-of-mouth marketing through the Internet [6]. One characteristic of virus marketing is that it can spread its value-added advantages to millions of people like a virus [7-8]. And social fission also has the characteristics of virus marketing. It uses social media to drive users (senders) on social media to carry out marketing communication. At the same time, the receiver can also spread the information again as a sender to achieve the characteristics of rapid transmission in a short time [9]. In the early stage of opening up the market, Luckin Coffee invested many marketing costs to accumulate more app users. Among them, it adopted the social fission of "free drinks". This mainly includes three steps. The first step is to register. It adopts the strategy of "new users, free drinking". Users can register Luckin Coffee's app with an unregistered mobile phone number and get a free drink coupon. The larger the number of users in this group is, the better the following social fission effect will be. The second step is to share. The users who have registered successfully will share the information with the new users who have not registered. The new users can download the app and register the app to get free drink coupons. It is worth mentioning that when the new user registers and consumes successfully, users who invited these new users can automatically get a free coffee voucher. The final effect of this step is "invite friends, and each party will get a cup". The third step is to achieve rapid social fission. Registered users can use the powerful social function of WeChat to share Luckin Coffee's "new users, free drinking" activity with their WeChat movements. Now, friends in the user's WeChat movements who have not registered for the app can repeat the second step. After the friends finish consuming, the user can get a drink coupon for free again. Once this social fission spreads rapidly, the number of Luckin Coffee apps will show a virus growth to achieve rapid social fission.

With the progress of Luckin Coffee's social fission, the number of app users and transaction volume also continues to rise. As of the first quarter of 2019, Luckin Coffee's cumulative number of trading users reached 16.87 million, and the monthly average number of trading users reached 4.402 million. However, after 2020, with the development of its app users to a certain scale, and considering the high marketing costs, Luckin COFFEE will no longer split in the form of issuing free drink coupons but instead give away 20 RMB of drink discount coupons(Data source: China Merchants Securities).

4.2. Content Marketing

Content marketing creates personalized and valuable content for interaction, participation, and target consumers [10]. Luckin Coffee also actively uses content marketing. With the help of Microblog, Little Red Book, and other platforms, it released the order strategy and some welfare activities, interacted with fans, and expanded its marketing scope. For example, before the launch of the new product, Luckin Coffee will start the countdown function on such social platforms; After the launch of the new product, Luckin Coffee will actively carry out the "punch in" activity on the

social platform to promote consumers to release notes, take photos of the new product and comment on the taste of the drink on the platform. In addition, Luckin Coffee will draw prizes in the review area from time to time to distribute coupons and other benefits to users.

Furthermore, Luckin Coffee customized Walden Ski Latte and Blue Velvet Sasser Latte for its brand spokesman Gu Ailing. After Gu Ailing won the Winter Olympic Games, Luckin Coffee updated the winning elements of Gu Ailing on social platforms such as the app, Wechat applet, and micro-blog for the first time, launched activities such as “winning ticket packages” for users, and two customized drinks related to Gu Ailing also sold out. At the same time, Luckin Coffee’s micro-blog index soared by 1684% month-on-month, and Baidu’s index soared to 4986 and 6134 after Gu Ailing won the championship twice. Additionally, Luckin Coffee is not limited to promoting drinks on social platforms but also publishes information about light desserts and some peripheral products, with exquisite pictures and eye-catching words to attract consumers’ desire to buy (Data source: China Merchants Securities).

The above marketing analysis of Luckin Coffee shows that Luckin Coffee has made further development in marketing using the Internet. Luckin Coffee has successfully achieved social fission through the Internet, and the number of users has increased significantly. In addition, its unique content marketing on the Internet platform has also brought a large number of users and customers. So the whole coffee industry is also gradually relying on the Internet’s high-speed transmission and updating capabilities and the integration of various information resources so that the public can better understand different coffee brands and coffee culture.

5. Product Research and Development Analysis

The digital tools help Luckin Coffee have better product research and development ability. Luckin Coffee could digitalize the taste, research, and development process and create many widely acclaimed new products. This process not only helps Luckin Coffee generate a large number of sales but also brings a unique taste experience to consumers.

5.1. Taste Digitization

First of all, Luckin Coffee will digitize its taste. Luckin Coffee first changed the taste into numbers and then looked for the corresponding raw materials through the numbers when developing the products in the later stage. The advantage of using digital to define taste is that it can build taste limitlessly, surpassing the limited taste described by words such as sour, sweet, bitter, and spicy. This digital innovation breaks the taste boundary of traditional drinks. For example, Luckin Coffee will track the taste of peach, such as aroma, sour taste, and sweet taste, when studying peach series products and decompose these tastes into a map to combine them with coffee flavor. Therefore, digital taste can diversify taste, and customers often get some unexpected organic combinations (Source: China Beverage Express).

5.2. Digitization of the Research and Development Process

On the other hand, Luckin Coffee digitizes the product development process. Within Luckin Coffee are five digital process departments: product analysis, menu management, R&D, testing, and optimization. The five departments will work together but operate independently of each other. Any new product will undergo a quite complex assessment in this digital process. If it fails in any link, it will be eliminated. Taking the research and development of raw coconut latte as an example, the product analysis department will go to the market to investigate the popularity of raw coconut products, confirm whether there are popular raw coconut drinks in the market, as well as coconut production, product structure information, and other relevant information in recent years, to ensure

that if raw coconut products are listed, there will be no serious problems in the supply chain. On October 10, 2022, the sales volume of the raw cheese latte launched by Luckin Coffee exceeded 1.31 million cups on the first day of its launch and 6.59 million cups a week, breaking the record for sales of Luckin Coffee's new products again. With the strength of the R&D team, the new product cycle of Luckin Coffee is also the shortest in the coffee industry. Luckin Coffee launched 70 new ready-made drinks in 2020 and 113 new ready-made drinks in 2021(Source: 36 Kr; Little Red Book).

The extensive use of Luckin Coffee's digital tools has helped its product research and development, thus creating more diversified products. On the other hand, with the continuous innovation of products, Luckin Coffee has also enhanced the value experience of consumers, and the sales volume has increased significantly. For the whole coffee industry, the existence of digital tools has effectively promoted the development of the coffee industry and helped coffee brands to develop new products so that the designed new products can stimulate consumer desire and improve the competitiveness of different coffee brands.

6. Conclusion

Through the above analysis, in terms of operation aspect, Luckin Coffee has adopted a new retail business model, effectively realizing the three new retail features of digital tool empowerment, online and offline combination, and retail service platform model, which improves the operation and management level. E-commerce self-operation has further accumulated and expanded the product range and more potential customers. As for marketing, Luckin Coffee has gained many users and customers through social fission and content marketing, further improving the brand's popularity. Besides, in the product research and development aspect, Luckin Coffee assists product research and development with digital tools, giving consumers a more diversified taste experience.

With the gradual growth of the coffee industry in the future, people's demand for coffee has also increased from just drinking a cup of coffee to drinking a cup of high-quality coffee, so how to improve and upgrade the coffee industry is crucial. As the new retail model rapidly develops, companies involved in the coffee industry are bound to further integrate closely with the Internet and big data technology to consolidate its position and competitiveness in the coffee industry. In addition, the limitation of this paper is that there are not enough data, which could support the whole paper. If more data are collected to prove how Luckin Coffee combines with the Internet, it will be more convincing.

References

- [1] Du, R., Jiang, K.: *New retailing: connotation, development motives and key issues*. *Price Theory and Practice* 02, 139-141(2017).
- [2] Chen, J., Cheng Y.: *Construction of retail enterprise performance evaluation system under new retail business model*. *Finance and Accounting Communication* 912(04), 89-95(2023).
- [3] Ma, Y.: *Exploring the human resource management model of new retail enterprises*. *Old brand marketing* 07, 147-149 (2022).
- [4] Li, J., Dong Y.: *Research on the new retail model of coffee*. *Journal of Economic Research* 25, 83-85 (2022).
- [5] Piotrowicz, W., Cuthbertson, R.: *Introduction to the special issue information technology in retail: Toward omnichannel retailing*. *International Journal of Electronic Commerce* 18(4), 5-16(2014).
- [6] Li, Y.: *Study on construction and application of word-of mouth marketing in new market environment*, Shandong University, 2006.
- [7] Vilpponen, A., Winter, S., Sundqvist, S.: *Electronic word-of-mouth in online environments: Exploring referral networks structure and adoption behavior*. *Journal of Interactive Advertising* 6(2), 8-77 (2006).
- [8] Kirby, J., Marsden, P.: *Connected marketing: the viral, buzz and word of mouth revolution*. Elsevier (2006).
- [9] Jiang, J.: *Social fission marketing strategy*. *Marketing World* Z2, 7-9(2021).

- [10] *Kee, A. W. A., Yazdanifard, R.: The review of content marketing as a new trend in marketing practices. International journal of management, accounting and economics 2(9), 1055-1064 (2015).*