Luckin Coffee's Digital Transformation: Case Study on the Impact of Digitization in the Coffee Industry

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Abstract: This paper examines the impact of digitalization on corporate competitiveness and analyses the digital transformation strategy and implications of the Chinese coffee chain Luckin Coffee as an example. The business model of Luckin Coffee is a new retail model based on new technology. Services are delivered through a mobile app and a network of shops, and goods are sold through third-party digital payment platforms or coupons purchased within the Luckin app, for example. Luckin Coffee's mobile app provides end-to-end customer service, including marketing, customer acquisition, customer management, and billing processes. The research in this paper finds that Luckin Coffee has successfully rebuilt its brand reputation through digital transformation, which has implications for the digital transformation of companies, and that other companies can learn from Luckin Coffee's marketing model and create their own unique and efficient operational models. However, there are some limitations to this paper's research. Companies should improve their digital transformation strategies according to their circumstances and pay more attention to the importance of digital transformation for competitiveness.

Keywords: Luckin Coffee, digital transformation, coffee industry

1. Introduction

The emergence of digital disruption in various industries has made digital transformation an essential aspect of business strategy [1, 2]. The coffee industry is no exception. As one of the pioneering companies in the Chinese coffee industry to adopt the new retail business model and start the digital transformation, Luckin Coffee, a Chinese coffee chain founded in 2017, has attracted wide attention [3].

Although the company faced a significant setback in 2020 due to its involvement in a financial fraud scandal and subsequent delisting from NASDAQ, it has managed to recover. Its digital transformation strategy continues to set it apart in the industry. As such, studying Luckin Coffee's digital transformation strategy is essential.

This paper aims to analyze the significance of digital transformation for companies to maintain competitiveness in the current business environment. Additionally, this research provides insights

into the impact of digital transformation on the coffee industry and other industries. Finally, this study offers practical recommendations for companies seeking digital transformation initiatives.

This article begins with a brief overview of Luckin Coffee's business model and the events that led to its delisting. It then examines the significance of digital transformation for the coffee industry and delves into Luckin Coffee's digital transformation and operational strategy.

To achieve the research objectives, this paper analyzes existing research on digital transformation and thoroughly examines the company's digital transformation plan based on available data.

In summary, this paper aims to contribute to the current discussion on digital transformation by studying Luckin Coffee's digital transformation strategy, highlighting the importance and impact of digital transformation on enterprises, and providing practical advice for enterprises seeking digital transformation.

2. Digital Transformation

Digital transformation is a strategic adoption of digital technology. It can help companies develop better by improving their internal businesses, management models, productivity, and customer experience, and even reducing costs and risks. Data shows that 56% of companies are currently prioritizing digital transformation worldwide as of 2021 and global spending on digital transformation is expected to reach $6.8 trillion by 2023 [4]. It seems that more and more companies are starting digital transformation. There are many reasons for them to do so.

Enhance customer experience. More and more companies are now focusing on consumers rather than the products themselves. Companies can analyze consumer preferences through big data, taking Lucky Coffee as an example. By analyzing consumer tastes, it can make targeted recommendations on mini programs to attract customers. Now customers can also make payments online and place orders on apps or mini programs, which brings a lot of convenience to consumers.

Beneficial to the formation of digital culture. Because of the Digital transformation, the company can use new ways to train its employees, such as online training, which can save the cost of renting a place offline for training. Companies can also train employees' skills through digital systems or software, such as Lucky Coffee's Lucky University software, which allows employees to familiarize themselves with beverage formulas and test their memory. Some companies also have systems to include employee attendance and adjust shift schedules. For example, if a store has many customers, the system will increase the number of employees. It's also easier for employees to discuss projects at home, where they can share data and solve problems in real time.

Improve process efficiency. Technology can replace manual labor in doing repetitive and simple tasks every day, saving employees much time and allowing them to spend more time on complex tasks. For example, the coffee machine of Lucky Coffee has reduced much burden for employees, and employees only need to add other ingredients. The system can also analyze the advantages and disadvantages of the company through data, and the company can make targeted improvements and innovations to increase its competitiveness. Companies can also use the cloud and other media to gather valuable information, as well as customer feedback, and use this information to develop strategies for improvement and innovation that are more effective and responsive to trends.

Develop sustainable competitive advantage. Through digital transformation, companies can increase efficiency and reduce the cost of daily simple tasks that need to be completed manually, and then use more money to invest in innovation and research and development, as well as process improvement, to create unique business processes that other companies cannot easily copy. More and more other companies will cooperate with such innovative companies. For example, cross-industry cooperation is often conducted to achieve win-win results for both sides and enhance the popularity of bilateral brands. For instance, due to the brand effect, big brands usually enjoy certain discounts in renting places in some business areas. These renters usually want to work with these big brands to

attract customers. By attracting consumers through unique consumption methods, the company can gain more profits, which gives the company enough ability to quickly open branches and make more people in different places notice the brand. This is a healthy development for the company, which will become more competitive due to the transformation.

3. Digital Transformation of Luckin Coffee

3.1. Business Model

Luckin's business model is a new retail model driven by new technology. This new retail model is built on a network of mobile apps and stores [5, 6]. Specifically, Luckin provided two methods for consumers to buy goods: through a digital payment platform operated by a third party, such as WeChat Pay or Alipay, or by redeeming coupons through Luckin's app. Customers could buy these coupons in advance through Luckin's app by transferring money from WeChat Pay or Alipay. According to Luckin, the revenue from the sale of vouchers was calculated based on the number of redemptions instead of the actual number of coupons sold.

3.1.1. Application and applet of Luckin Coffee.

Luckin Coffee is also one of the first chain stores to use paperless menus. The Luckin app provides end-to-end customer service, covering marketing, customer acquisition, management, and settlement processes. The app enables customers to settle their payments without assistance, leading to a seamless and hassle-free experience while improving operational efficiency. With the mobile app, Luckin can engage with customers in real-time, irrespective of where they are.

All ordering and payment for Luckin Coffee are conducted on apps and small programs, without using paper order. This can save the cost of updating and printing paper menus and updating dishes and pricing in a timely manner. Users can also order more easily because they do not have to queue up at the checkout counter to order. Companies can also analyze customers' tastes, preferences, and consumption status through user purchase data to make complementary strategies. However, this application may need to be more friendly to casual users, so Luckin Coffee has launched a cloud-based solution. Temporary customers can scan QR codes or access Luckin's ordering web page using a website to order meals. Based on the cloud, it also supports multiple payment methods and multilingual usage, which is also more convenient for customers. This digital transformation also captures consumers in multiple directions.

3.1.2. Chain stores.

Luckin Coffee strategically focuses on pick-up stores while operating three types of stores [7]. Most Luckin stores are pick-up stores, accounting for 96.5% (2020.12.31 data). Luckin's pick-up stores have limited seating and are usually located in areas with high demand for coffee, such as office buildings, business districts, and university campuses, which enables Luckin to stay close to its target customers and expand rapidly with low rents and renovation costs. Here is a comparison of three kinds of Luckin Coffee offline stores:

Pick-up stores: These are generally 20-60 square meters in size, and most are located within 500 meters of densely populated areas.

RELAX Store: Generally covering an area of more than 120 square meters, it is relatively spacious and can set up a good brand image.

Take-out Kitchen: This kind of store only provides take-out orders, covers an area of 10-20 square meters, and effectively reduces rental and decoration costs. But Luckin has closed all its delivery kitchens by July 31, 2021.

3.1.3. Business model expansion.

Luckin has also launched a new "retail partnership model". According to this plan, the new retail partner handles space leasing, staff recruitment, and day-to-day store operations, benefiting from Luckin's brand, cashier-free mobile ordering and online payment platform, and supply chain. At the same time, retail partners have fewer expenses to bear. Once sales start to climb, Luckin will get a more significant revenue share. This strategy would speed up store growth and reduce investment risks [8].

3.2. The Use of Big Data and Digital System

Analyze order information and personalize marketing.
Since all transaction information on Luckin Coffee can be presented online, the company can analyze users' purchase records. The company can analyze consumers' preferences from the data, so it can recommend similar products to customers through consumption records to achieve the purpose of differentiated marketing and attract users. The company can also confirm the quantity of purchases from the number of orders to avoid extra costs caused by too many purchases. From the number of orders, the company can also find out the product's popularity and consumers' taste preference for this product to determine whether to continue to develop dishes with similar tastes or buy more raw materials for this dish.

3.2.1. Automatic distribution system.

Luckin Coffee focuses on the speed of coffee production to reduce consumers' waiting time. The company requires an order to be completed within two minutes. However, sometimes there are so many orders that some stores need more time to finish. Therefore, the system will automatically assign orders from places with many customers to nearby stores with fewer orders for production. When customer traffic is high, the system will also automatically advise the store manager to increase the number of employees to reduce each employee's workload and the customers' waiting time. According to the number of orders, the company can also analyze the store's operation and the number of people. If there are many orders, the company will consider setting up another shop nearby to capture customers without dead ends. The system automatically provides a reference to the purchased quantity, so even inexperienced store managers can buy a more appropriate amount of raw materials, and experienced store managers can make some adjustments based on the system's suggestions. As a result, Luckin's automated distribution system allows stores to continue even when employees or store managers leave.

3.2.2. Product digital research and development.

The launch of Luckin Coffee's new products should be reviewed and approved by the product analysis department, product research and development department, menu management department, product testing department, and product optimization department. In the part of product analysis, the survey is conducted to analyze the taste preference of the new product and the price and quantity of raw materials required for this product. The product development department uses user taste preferences information to create flavors. The menu management department needs to ensure that the client can use the updated menu smoothly. The product testing department needs to test the product on a small scale to see how people respond to the product. The product optimization department needs to promote the product when the product is tested in the store, if the production process needs to be simplified or questionable, the department will consider optimizing the production steps. New products need to be approved by every department before they can be officially launched.

3.2.3. Luckin popMINI and Luckin Express.

Luckin popMINI mainly sells yogurt jelly, cereal, chocolate wafers, and other snacks. Consumers can buy goods at a lower price. Luckin Express sells coffee and some fawn tea. It uses raw materials such as the Swiss Schaerer coffee machine, IIAC gold coffee beans carefully mixed by WBC Master, and high-quality milk. The product taste is the same as that of Luckin stores. The machine is convenient for customers to use. The app and mini program of Luckin Coffee will automatically match consumers to the coffee machine nearby and then order to get the code. The machine will prepare a cup of coffee in 30 seconds, and new users can enjoy discounts. There are also monitors on top of the machines to monitor the availability of raw materials, and if there is a malfunction, it can be repaired within an hour. The machine also operates around the clock so customers can get their coffee anytime. As a result, consumers can buy cheaper coffee in a shorter time and in a closer location and more consumers will be attracted by Luckin's unique selling method. Using Luckin Express also saves costs for the company, which saves the cost of hiring employees, renting expensive land, and decorating costs.

3.3. Financial Fraud Scandal and Its Aftermath

Luckin Coffee's financial fraud scandal in 2020 significantly damaged the company's reputation and financial stability. The US Securities and Exchange Commission charged the company with fabricating false statements about its revenue, expenses, and net losses to deceive investors. In December 2020, Luckin Coffee agreed to pay $180 million to settle the charges of fraud and accounting irregularities.

The consequences of the scandal have been substantial for Luckin Coffee. The company was forced to close more than 600 stores, a significant portion of its general stores, and lay off employees to reduce costs. To mitigate the financial losses, the company transitioned to a franchise model in January 2021, which shifted the setup expenses to the franchisees.

The company also changed its marketing strategy by halting its heavy discount offers instead focusing on extracting more value from existing users. Luckin Coffee redirected its customers towards other, more profitable offers to increase revenue and stabilize the business.

Despite the setback caused by the financial scandal, Luckin Coffee remains committed to expanding the brand into other countries, particularly in Southeast Asia. The company plans to capitalize on the region's growing coffee consumption trends and the demand for premium coffee offerings. The expansion into other countries presents a new opportunity for the company to establish its reputation as an excellent coffee brand and regain the trust of its stakeholders.

4. Impact on the Coffee Industry

The entry of Luckin Coffee into the Chinese market has had a significant impact on the coffee industry in the country [9]. In this section, we will examine the effects of Luckin Coffee on both the consumer and coffee markets.

4.1. Consumer Market

Luckin Coffee's strategy of providing coffee at discounted prices has expanded the coffee consumer base in China. Previously, many consumers who preferred milk or traditional tea may have been unwilling to try coffee due to its high price point [10]. However, Luckin Coffee's affordable pricing has made coffee accessible to these consumers, increasing the number of people drinking coffee. In this way, Luckin Coffee has helped to stimulate consumption and create a more significant market foundation for commercial coffee in China.

4.2. Coffee Market

With its innovative business model, aggressive expansion, and effective use of technology, Luckin Coffee has disrupted the traditional coffee market and challenged the dominance of international brands such as Starbucks.

One of the key strategies that helped Luckin Coffee gain market share was its focus on digitization. Through Luckin Coffee's mobile application, customers can place orders online, make digital payments, and receive their orders through pickup or delivery. This approach streamlined Luckin Coffee's operations, reduced costs, and offered competitive prices, resonating with Chinese consumers [11].

In addition, Luckin Coffee's marketing strategy also contributed to its success. By partnering with popular social media platforms in China, Luckin Coffee generated massive buzz and attracted a large following. It also invested heavily in offline marketing, using eye-catching store designs and offering free coffee to attract customers. These efforts helped Luckin Coffee establish a strong brand image and increase brand awareness.

There is no doubt that Luckin Coffee has dramatically impacted the Chinese coffee market with its expanding consumer base and online platform se. Still, it has also aroused some debates about the quality of coffee in that kind of coffee shop. The rise of Luckin Coffee and other low-cost coffee brands may hurt China's coffee industry, and how the industry will adapt to such changes remains to be seen.

5. Conclusion

This study found that Luckin Coffee rebuilt its brand reputation from the negative impact caused by financial fraud through a relatively successful digital transformation. It achieves its goal of digital transformation by building an online order and payment method, establishing an automatic distribution system, using big data analytics to deliver personalized marketing push to consumers, and continuously expanding the number of stores with a retail partner model. Luckin Coffee has attracted many consumers and built brand awareness through this marketing method.

The significance of this study is to provide some ideas and suggestions for the transformation of traditional industries by analyzing the importance of digital transformation and summarizing the successful digital transformation methods of Luckin Coffee. Other enterprises can learn from Luckin Coffee's novel and unique marketing methods and create their own unique and efficient operation methods.

However, there are some limitations to the study. In the short run, it can be challenging to evaluate whether the methods of Luckin Coffee work or not. Although, according to the data nowadays, these methods are efficient, there are many uncertainties and potential drawbacks to influence the validity. Therefore, other firms should do more research to find out whether they can use identical methods from Luckin Coffee to transform or not. Firms also should improve these methods according to their situation.

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