

The Importance of Timing to Enterprise Development: Evidence from Webvan and Miss Fresh

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Abstract. Market Timing is very important for the development of enterprises. Timing drivers mainly include technology, economic, social, installed based, and regulatory. To illustrate how timing influences businesses more precisely, we investigate two organizations in the fresh market: Webvan and Miss Fresh. By comparing their timing and decision-making, we can understand why Webvan failed while Miss Fresh succeeded.

Keywords: Timing, Fresh market, Drivers.

1. Introduction

Correct market timing is often critical to the success of a business. When considering Timing, companies need to consider these factors: technology, economic, social, installed based, and regulatory. If these aspects can support the development of the enterprise, it is the right timing. If a company wants to succeed, they have to find out whether the timing is right before they start. There are such examples in all aspects of the market. Two companies of the same kind are founded one after another. Due to timing, the early founder fails while the later one succeeds. Our group further illustrated this problem by studying two representative companies in the fresh food market. The early startup that failed was Webvan in the United State. The later successful company is Miss Fresh in China.

The fresh industry is a demand, high-frequency anti-cycle market. The fresh food market has always existed. Community fresh markets and chain fresh supermarkets have evolved in recent years, mostly to take the role of the old vegetable market and massive comprehensive supermarket. The new integration of the sales situation and supply channels can meet the new needs of consumers. In recent years, the overall transaction scale of the fresh e-commerce industry has maintained stable growth. In 2021, the transaction value of Fresh e-commerce in China was reached 465.81 billion yuan, representing a 27.92 percent year-on-year increase. [1].

In 1996, at the height of the dot-com bubble, Louis Borders founded Webvan Group, a company that provides online grocery delivery services. It delivered items to customers' homes within a 30-minute window that was selected by the customer in advance. The company's first public offering (IPO), which took place in November 1999, attracted an additional \$375 million in investment. When Webvan began operations in April 2000, it was shipping over 20,000 grocery items, in addition to flowers, books, office supplies, over-the-counter pharmaceuticals, and pet food. It provided service to 10 major US urban areas, including the San Francisco Bay Area, Los Angeles, and Chicago, during its peak. By 2001, the company hoped to have established a presence in 26 locations. This is not the case for long, within a year, Webvan runs into troubles. "We believe we had a brilliant concept, we were just ahead of time," Buddy Grebey, Webvan's spokesman at the time of the company's suspension in mid-2001, said [2]. It is estimated that Webvan spent around \$1.2 billion on capital during its brief existence, garnering it the distinction of being one of the most costly failed Internet companies in history.

Miss Fresh was founded in November 2014. It is an online to offline fresh food e-commerce platform around the dining table of people. It includes fruits, vegetables, seafood, meat, poultry, milk, snacks, and other categories. And the company has 7.89 million active users. In 2018, Miss Fresh has established an extremely fast cold chain logistics system with an urban sorting center and community pre-warehouse in 20 major cities in China, providing users with a self-operated one-hour delivery service of selected products. Miss Fresh's user base in the fresh food e-commerce business hit 50% in the first half of 2018, leading the industry for four consecutive quarters[3].

In the early morning of June 9, 2021(Beijing time), Miss Fresh submitted its prospectus in the United States and planned to list it on NASDAQ under the code "MF", aiming to raise \$100 million. Underwriters on the IPO included JPMORGAN chase, Citigroup, CICC, China Renaissance Capital, China Merchants International, ICBC International, Futu Securities, Tiger Securities, and Needham [4].

The following parts of the paper are organized as follows: Section 2 is the comparison between Webvan and Miss Fresh; Section 3 describes Webvan and Miss Fresh's decision-making. Section 4 is a discussion about the two companies. Section 5 is conclusion.

2. Comparison between Webvan and Miss Fresh

2.1 Technology

Technology has a significant impact on the development of a business at a certain point in time, such as GPS, information systems, machines, transportation, and mobile signals.

When Webvan was established, both its information system and machines contained vulnerabilities; if anything went wrong with them, the entire work order was disrupted, efficiency decreased, a large number of orders could not be completed, and thus the losses accumulated gradually as a result of these errors. Webvan was criticized for its short window (30mins) for attended delivery, which meant that the consumers have to stay at the place of receipt and wait for delivery as long as they placed an order, and could not see the logistics information in real-time as GPS was not allowed for public use. While home delivery was geared to accommodate busy working people, many found last-minute changes prevented them from being home at the specified time. When it lost its advertised advantages, even inferior to the general model, fewer people will choose to shop online for fresh products.

Webvan got its start in San Francisco. The company assumed that the market in this location comprised of people with higher incomes and a stronger interest in food quality, and that this would be an appropriate place to begin, but that market is exceedingly difficult to access from a traffic standpoint. They have hills, and many of the dwellings are difficult to reach, making delivery a disaster. To reach their location, the deliverymen must travel a substantial distance. It's a traffic hazard, and as a result, the first promise of deliverymen transporting within 30 minutes has been broken[5].

With the advancement of modern technology, smartphones have become ubiquitous; consumers simply need to download software, and China's GPS geo-location information is open; they can see where their goods are moving, and the intelligent information system will assist you in calculating your estimated delivery time[6].

In addition, Miss Fresh established a perfect transportation system, especially the cold chain logistics are particularly important for the fresh products. Miss Fresh adopts "front warehouse mode" which means setting more warehouses that are near the center of transporting the food, covering the surrounding radius of 3 kilometers to solve the common problems in the fresh food industry, such as serious loss, and high cold chain logistics costs. Quality is assured, and the products are delivered within two hours when using this style of operation. [7].

From a technical standpoint, the technical problems will hurt the company a lot. In Webvan, there's not a thorough transport system and a reasonable alternative scheme, but Miss Fresh has, so when the two companies both face the transport problems, Miss fresh can solve the problem leisurely because

they prepared early, on the contrary, Webvan can just passively accept the loss caused by technical defects, the loss is not only in money but also in the consumers' trust.

2.2 Economic

Website invested \$35 million in each of the major storage facilities and contracted with Bechte to develop all 26 warehouses for a total of \$1 billion in 1999. This strategy, on the other hand, is only viable provided a sufficient number of orders are received. Webvan's business model predicted 8,000 daily orders, a level sufficient for profitability, as well as profit margins of 10 percent to 12 percent, compared to the grocery market's profit margin after tax of 1.18 percent in 1999 and 2000[8]. To be sure, when Webvan first opened its doors in June 1999, the average daily order volume was 2,500, suggesting that the company's distribution centre was only running at less than 30% of its maximum capacity[9]. Furthermore, in its first six months of operation, Webvan acquired an incredible 47,000 new customers. Despite this, repeat customers accounted for 71% of the 2,000 daily orders placed over the course of the six-month period [9]. This necessitated Webvan expanding its customer base while also minimising the amount of customers who placed an order but did not utilise the service again afterward. After two years of straining to keep up with the influx of funds, Webvan was forced to file for bankruptcy. The company had replicated the San Francisco facility model in 26 locations across the United States and had launched an initial public offering a month later. It had already sucked \$1.2 billion from investors' funds and was losing an average of \$130 on each order by that point [10].

As the latecomer, the warehouse distributed mode of Miss Fresh is from the original procurement to the urban sorting center to the community distribution center. Because of the closer front warehouse to the consumers, most of the produces just need handbags during the distribution process, which reduces the packaging cost to the firm. At the same time, Miss Fresh pursues the small size packaging of the products, and encourages the consumers to purchase less for more times, it doesn't influence the profit and satisfies the demand of the consumers for their need of food diversity [11].

Miss Fresh doesn't focus on the advertisement, it achieves the users by collaborating with Marketing. When it owns the basic group of consumers, Miss Fresh's promotion is based on the social mobile community, separates the information to the group of new consumers through the old consumers, for example, they may launch sharing red envelope. This way attracts many substantial consumers. Through the analysis of the consumers' characteristics, it can generate different promoted scenarios [9]. This kind of method is more accurate, more efficient, and less costly.

In terms of economics, Webvan believes that if there is a racing track, a market will exist. As client behaviour continued to vary from the assumptions underlying Webvan's business plan, the company gradually realised it had overbuilt and overdesigned. On the contrary, the technique by which Miss Fresh continues to prosper is through "subtraction of mind." The corporation manages its operating costs by simplifying the category, prudently utilising the storage facility, and precisely evaluating the consumers in order to avoid superfluous advertising costs.

2.3 Social

Consumer behaviour, or social drivers, such as customers' desire to purchase, consumers' purchasing power, and the environment, is a significant factor affecting the success of businesses.

Webvan assumed that a sizable portion of the population would prefer to purchase goods online and have them delivered to their homes rather than visiting a physical supermarket. This belief led them to believe that Webvan's sales would soar and that people would place a premium on the convenience of not having to visit a physical supermarket. However, the vice dean and director of the Wharton School's Aresty Institute of Executive Education Robert E. Mittelstaedt, Jr. argues that this company's bankruptcy was caused by erroneous assumptions [5]. Webvan ignored the basic consumer behavior, "It turns out that many shoppers have not made their purchasing selections before visiting the store," Mittelstaedt explains. Webvan broke one of the most basic economic laws: You can't sell someone a grocery delivery service if they haven't chosen what to get.

In addition, In the year 2000, everyone had a wait-and-see attitude toward grocery delivery service and the consumers did not understand the convenience that fresh food delivery brings to them. If Webvan offers discounts on groceries, this may have a favorable effect on customer behavior. However, if groceries are priced the same online as they are in the supermarket, there are no reasons to shop online except for a very tiny fraction of the population who find it more convenient, Mittestaedt says.

Times change, and with the growth of online shopping and takeaway, grocery e-commerce is gaining popularity. Simultaneously, this generation's educational background and growing environment significantly enhance Internet consumption habits. Before the development of the Internet fresh food platform, young people living in first- and second-tier cities frequently struggled with a lack of time to pick and purchase fresh foods in physical supermarkets [12]. Additionally, national consumption is increasing, so the development of fresh enterprises meets the potential needs of this group of people. Miss Fresh is able to grow because it responds to the evolution of society and has a keen awareness of human requirements.

Particularly in the last two years, the overall environment has led customers to curtail physical buying possibilities under the coronavirus crisis, consumers who previously chose lower-priced fresh produce food markets are now willing to pay a premium for online shopping, but this is a public health emergence, cannot be used as a basis for comparison.

As discussed above, social factors can have a positive or negative effect on a business depending on the timing. As Webvan was so confident in its products, it believed that buyers would pay for "convenience," but neglected the general public's buying patterns and the time cost required to absorb the new concept. Then, as society developed, Miss Fresh was founded in an era when people valued "convenience" and consumption patterns steadily migrated from offline to online, resulting in a significant increase in demand for grocery delivery services.

2.4 Installed base

In addition to the differences in hardware technology, the difference in software technology is also an important factor, which is known as the installed base. For sellers, enough target audience is a prerequisite for successful sales, while for online stores, the number of people using the Internet is an important factor affecting demand. But in the time when Webvan was operating, the Internet was not used widely in public. According to the data from a website called "internet live stats", until 2000, the user of the internet was 414 million [13]. There are still many groups that are not exposed to the Internet, and smartphones were not popularized at that time. People can't buy them online anytime and anywhere, which greatly reduces the user utilization rate. As the result, the delivery was inconvenient before GPS was allowed for public use in 2000. However, real-time positioning is very important for delivery services, which can let customers know the exact time of delivery of goods and the current geographical location. Customers can't get immediate feedback on their products, can't arrange and plan their behavior, and can't get a sense of ownership of services, so they will reduce the desire to consume. Moreover, the public operation of GPS was not popular at the beginning of the Webvan company. Webvan company began operating in 1996, but 2000 years ago, the United States military reasons for considering the Selective Availability (SA) policy (by reducing the precision of broadcast ephemeris, the methods of GPS signal in high-frequency jitter, artificially reducing ordinary users using GPS for navigation and positioning accuracy of a method). In this case, that makes the navigation error a hundred to two hundred meters, it obviously would add to the cost of delivery and extra time to determine the location. Therefore, GPS cannot be effectively used in the distribution process. President Clinton of the United States of America established the National GPS Policy (from Presidential Decision Directives) in 1996, promoting the use of the GPS global satellite navigation system. In 2000, he directed that SA be halted at 12 a.m. on May 1, 2000. Civilian GPS location precision has improved to a practical level of 6.2 metres on average, igniting a boom in the GPS sector and application. Unfortunately, during this time the company was in irreparable losses and on the verge of bankruptcy.

For the Miss Fresh company, the number of Internet users in China is huge, that is to say, online fresh food stores have a large potential user base, which is very conducive to its development. According to TechWeb, China Internet Network Information Center (CNNIC) released the 35th Statistical Report on Internet Development in China in Beijing. As of December 2014, the number of Internet users in China had reached 649 million, and the Internet penetration rate was 47.9%. The number of mobile Internet users reached 557 million [14]. Such a huge number of Internet users benefits not only the consumer base, but also the Miss Fresh company's PR, attracting additional users to the app. This is a factor in the number of customers that helps increase the quantity demanded. In terms of improving efficiency, China's positioning system has developed to a sufficient level in 2016. According to the official website of the Central People's Government of the People's Republic of China, China completed the Construction of the BDS-1 system at the end of 2000 to provide services to China. By the end of 2012, the BDS-2 system will be completed to provide services to the Asia-Pacific region. And in terms of accuracy, according to Huan Qiu, an Affiliation to the People's Daily online, the U.S. GPS atomic clock is accurate to one billionth of a second, while the Beidou atomic clock is accurate to one second less than three million years. The accuracy of Beidou is 5 orders of magnitude higher than GPS. Such a localization system dedicated to domestic service is undoubtedly a great improvement in the efficiency of the domestic delivery industry because it reduces the delivery time and reduces the possibility of delivery errors.

Comparing the difference in installed Bases between the two companies, Miss Fresh has a more accurate positioning and a larger potential user base than Webvan, so Miss Fresh has higher efficiency and sales volume, which makes it more successful.

2.5 Regulatory

Regulatory is also a significant factor that shows the attitude and support of the state and government to the industry, and it decides whether the fresh company will get permission and help from the policy when they need some promotion in some steps of the operation of the company.

Before Miss Fresh was founded, China began to introduce some policies, such as deeply integrating agriculture with the Internet [15], promoting digital transformation of agriculture, encouraging to growing vegetables and keeping domestic animals according to local conditions, developing diverse and distinctive farming, especially the policies about the connection between the origin of agricultural commodities and supermarket, because it is fit for the advantage of Miss Fresh-the strength in the cold chain logistics. A few years later, the files about the connection between the origin of agricultural commodities and school [16], the community were introduced consecutively, which further strengthens the fresh agricultural products cold chain system [17], both the steps and costs induce during the transport process, the total cost will decrease and the amount of the food can be controlled by the demand of the consumers instead of stocking them blindly.

Miss Fresh is established at a good time, it conforms to the needs of national development in agriculture and gets the convenience brought by regulations, it gets the boost in transportation and the provision of goods. Webvan is a counterexample, it didn't get any boost in regulatory, so it was limited by transport defects and it leads to a big leak. It can be seen that different time regulatory play a very important role in the development of a company in the industry.

3. Decision-making

To build the company and achieved its objective of "Getting Big Fast," Webvan committed over \$800 million in private and public capital. Their goal was straightforward: execute the business model concept, and customers would flock in droves. Webvan successfully implemented its business plan, hiring an experienced CEO from Anderson Consulting (now Accenture) and putting together an all-star board of venture capitalists. With the cooperation of Bechtel, they built state-of-the-art warehouse fulfillment centers with robotics and miles of conveyor belts in each of their 26 target markets. The \$30 million facilities, which were set to open in 2003, would be 350,000 square feet in size. Webvan

claimed that by automating a substantial amount of the distribution process, the company would save money on labor. Customers as far away as 40 miles would be served by each centre. For Miss Fresh, Miss Fresh's main goal was to be "good" and "fast." Miss Fresh was the first to introduce a warehouse that is closer to customers. It has created an extraordinarily rapid cold chain logistics infrastructure of "urban sorting center + community distribution center", in major cities. Miss Fresh's logistical innovation has enhanced its turnover. The purpose of a close warehouse is to upgrade cold chain logistics from the city to the community level, and it had a high storage capacity, which not only increased the display efficiency of goods but also solved the distribution problem of last mile. The warehouse concept was a huge hit. The daily turnover of the Miss Fresh website climbed from 4.73 billion yuan to 7.62 billion yuan, according to the data. Miss fresh's goal, according to founder Xu Zheng, is to become China's number one fresh food shop. In contrast, Webvan is impatient and greedy in making market decisions and wants to expand rapidly at low cost, while Miss Fresh steadily adopts an innovative logistics chain, which increases costs but significantly increases profits [18].

3.1 Discussion

During the internet euphoria of 1998-2000, several internet companies, such as Webvan, believed they had a fantastic concept, however, time demonstrated that these companies failed. Using Webvan and miss fresh as examples, it is critical to illustrate why it is critical to enter the market at the proper time.

Webvan offered consumers delivery within a 30-minute timeframe, taking advantage of a market gap too early, not realizing that the cost and delivery time of such a cargo were unachievable [19]. The profit margin in the fresh produce business is relatively low, and Webvan can only be successful by scaling up to minimize marginal costs; yet, in many areas of the US with low home density, every delivery is tough to make profitable. For the online groceries market, instead of spending a lot of money on building warehouses, selling groceries at low prices would have a better chance of capturing market share with traditional stores.

Miss Fresh's entry was even better timed - there were already companies like Webvan offering online grocery services, so consumers didn't need the 'transition time' and general environment generated by the market's 'convenience.' The wider environment produced the demand for 'convenience.' Most crucially, the market has seen few competitors, and miss fresh is the market leader in the model of merging front-end warehousing with delivery-to-home service.

3.2 Conclusion

At a broader level, this paper was motivated by the observation that timing is not widely understood and used. Focusing on the fresh market, this paper explains how timing affects Webvan and Miss Fresh from technology, economy, social, installed based, regulatory five aspects. Evidence from this study, together with some other examples on the market, leads us to conclude that it's of great significance that when businesses start, they should determine whether the timing is right by comprehensively analyzing whether these five factors are favorable or not. Webvan failed due to unclear positioning, too much cost, and lack of technical support. Miss Fresh made the right decision, and was supported by policy and technology to succeed.

A limitation of this study is that due to the epidemic, we are unable to interview the staff of these two companies and get more real and detailed information. The information available on the internet is very limited, so our research has some shortcomings.

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