Comparative Study on Profit Model of Fresh Food E-commerce Industry

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Abstract. In recent years, due to the impact of the epidemic, people's clothing, food, housing, and transportation have become more dependent on the Internet. The fresh food e-commerce industry is a product that stands out under such a background. Therefore, people must understand this industry because it might contain a huge wealth in it. This paper takes Dingdong Maicai as the main research object because it is the largest company that is based in the front warehouse and it has the most advanced transportation skill; At the same time, Meituan is selected as a group buying case company, because it is the largest group buying company. The advantages and disadvantages of the two are compared and analyzed from the perspective of the profit model, which contains profit point, profit source, profit leverage, and profit barrier, analysis framework. Then, the paper illustrates the difficulties that Dingdong Maicai might have encountered and some suggestions for Dingdong Maicai to overcome those difficulties.

Keywords: Profit model; business; marketing.

1. Introduction

Since 2005, the fresh food e-commerce industry has experienced 17 years of development. The development has gone through three major periods: a) The traditional e-commerce period: the starting point is the logistics supply. b) The innovation period; with the gradual development of home delivery, the industry ushered in new changes and more new models emerged. c) The period of coexistence. However, due to the low penetration rate on the user side and the unsustainable profitability on the enterprise side, it is far from the final word.

The front warehouse model is a fresh delivery method. The front warehouse is aimed to decrease the distance and delivery time between consumers and reduce the wear of fresh food as much as possible. After consumers place an order, the goods will be shipped directly from the front warehouse. This can shorten the delivery time of fresh food to 0.5-1.0 hours.

The community group buying model relies on the head of the group to link the demand side and the supply side. a) The head of the group transmits the group purchase information to the user through the WeChat group; b) The user places an order after selecting the goods; c) The community group purchase platform sends the goods to the community point or the head of the group; d) Where does the user get him from the head of the group of goods. This model is good at lowering the price.

In the study of profit models, no one compares the profit model of the front-loading model and the community group buying model. Therefore, this paper is dedicated to filling this gap, and illustrates the problems a typical enterprise may encounter in the future and some suggestions for overcoming them. This article compares and analyzes the profit models of these two models according to the four profit factors profit point, profit source, profit leverage, and profit barrier.

2. Literature Review

GGroup buying is the most popular selling strategy. It is used by both Chinese companies and other countries' companies such as BrowserCam and Dingdong Macai. This attracted a lot of researchers to research, e.g., Sellers would benefit from group buying because they can use the group price to motivate consumers who know little about the product [1]. Previous studies suggested that Consumers' purchasing desire was related to the website, satisfaction with sellers, and perceived quality of the website [2-5]. China, the group buying model had more localized variation. Originating from the e-commerce logistics industry, front-warehouse retail located warehouses in advance near community service stations, placed customer orders and realized rapid delivery of goods [6]. So far, the relevant studies mainly focused on the theoretical research of terminal distribution, designed order assignments [7], warehouse location, and path optimization [8]. However, none of the research was conducted to compare and analysis the two fresh food E-commerce models using the profit model.

The profit model is used for analyzing the profit of a company. More and more scholars started to focus on observing and analyzing the profit model of famous companies. Some research papers defined the profit model as the description of consumers, users, Allies, and suppliers' duties and relationships [9]. A paper called Network Enterprise suggested a new Business Model for Global Sourcing that the Profit model was a method for enterprises to establish and effectively use their resources. Enterprises using the right monetization model can provide competitive value to customers [10]. To conclude the information of those papers, the factors that compose the profit model are the profit point, profit source, Profit leverage, and companies' defensive mechanisms to protect their revenue.

3. Comparative Analysis of Profit Models

3.1 A Typical Enterprise with The Front Warehouse Model - Dingdong Maicai

In May 2017, the Dingdong Maicai was officially launched, and established the industry standard of "delivery to people’s home in 29 minutes". In 2018, the revenue reached 742 million yuan, and the daily orders exceeded 100,000. In October of the same year, 119 front warehouses were built to serve most of the communities in Shanghai. In January 2019, Hangzhou opened, and in August of the same year, Shenzhen opened, and by the end of the year, the annual revenue was 6 billion yuan, and the number of front warehouses reached 600. In 2020, the GMV of Dingdong Maicai reached 13 billion yuan, while the GMV of Daily Youxian, the second largest in the industry, in 2020 was 7 billion yuan. In 2021, Dingdong Maicai has established more than 1,136 front-end warehouses across the country, and operated 40 urban processing centers in 14 cities. On June 29 of the same year, Dingdong Maicai was officially launched. After continuous efforts, Dingdong Maicai stir-fried Daily Excellent Fresh in the fourth quarter of 2019. It has become the front warehouse enterprise in China, and has continued to widen the gap with Daily Excellent Fresh in the next few quarters. Therefore, this article decided to use Dingdong Maicai as a typical enterprise of the front warehouse model.

3.2 A Typical Enterprise of The Type of Group Purchase In The Community - Meituan

Meituan was established on March 4, 2010. The founder of Meituan, Wang Xing, noticed the lack of Internet promotion for small and medium-sized local merchants in China at that time, so he exchanged 1 to 30% off food by providing advertisements with the same effect to these merchants, and used this to attract his own target. user. In 2011, after experiencing the fierce competition of group buying websites (Thousand Group Wars), it won, and its sales reached 1.45 billion in 2011. It has established itself as a leader in the group buying field. Afterwards, it experienced the "Bicycle War" and the "Takeaway War. It has achieved good results in both fields. In particular, Meituan Takeaway has provided continuous financial support for the new products of Meituan Group in the following years.

Community group buying is a "social retail" model that sinks into the residential community and uses the head of the group as a bridge to develop an acquaintance economy. In July 2020, during a period of easing of the epidemic, Meituan joined the "fresh food war". Meituan officially established the Meituan Optimization Division headed by Senior Vice President Chen Liang, and proposed the "Thousand Cities Plan" to sink into the county-level market. In the end, Meituan preferred to secure its position in group buying in the community and won a temporary victory. Therefore, this paper selects Meituan as a typical enterprise for community group buying.In 2021, Meituan establish working relationship with the municipal government of Guangzhou.

4. Profit Model Comparison

4.1 Profit Points

Profit points refer to services and goods for which a company can make a profit. Having experienced the brutal competition of O2O fresh food e-commerce platforms, Dingdong Maicai understands that if it wants to stand out in this industry, it must differentiate itself from other fresh food e-commerce platforms. Therefore, Dingdong Maicai has made innovations in profit points. Dingdong Maicai found that the fresh food e-commerce platforms in the market are basically fruit-based, and there is no company that supplies the ingredients that citizens need for three meals a day. Therefore, they immediately changed their core category from fruit to more diverse ingredients. In addition, the high distribution efficiency and low freshness loss of the front warehouse mode are also important profit points for Dingdong Maicai. This is achieved by relying on the delivery method of Dingdong Maicai. First, the products are sent from the place of origin, then transported to the sorting center through the cold chain, then transported to the front warehouse, and finally delivered to the user's home by take-out. .

Meituan has noticed that there are fewer large supermarket chains such as Yonghui and Carrefour in the sinking market of third- and fourth-tier cities. This problem was solved very well by the community group buying problem. Meituan preferably solves this problem by empowering community stores, and then contacting buyers and sellers through the head of the group to attract consumer consumption. This kind of community store group buying business can enable consumers to buy better products and services at cheaper prices. This is the main profit point of Meituan Select.

In general, Meituan's preferred profit point mainly relies on the cheap price of community group buying, while Dingdong Maicai profits through convenient and fast delivery methods and different positioning in the market.

4.2 Profit Source

Profit source refers to the purchasers of the company's services. The purchase groups of Dingdong grocery shopping are mainly composed of new first-tier cities and second-tier cities. This is because the pace of life in these cities is relatively fast and the income level is high, so the good quality and convenience of Dingdong grocery shopping can be fully utilized in these cities.

Meituan's preferred value proposition is to provide the best value for money to customers. However, in first- and second-tier cities, people don’t value cost performance but product quality and convenience. Therefore, Meituan’s preference for first- and second-tier cities is not advantageous. On the contrary, in the third and fourth tiers where the pace of life is slow and the income is not high, Meituan's shortcomings have become its strongest competitiveness. Therefore, Meituan is more inclined to sink the market than developed regions.

In contrast, Dingdong Maicai mainly specializes in first- and second-tier cities, while Meituan will focus on third- and fourth-tier cities.

4.3 Profit Leverage

The profit leverage represents the service that the company takes to turn the profit source into the profit point. The reason why Dingdong Maicai can achieve high distribution efficiency and low fresh food loss in new first- and second-tier cities is that Dingdong Maicai has more than 950 front warehouses in recent years. Having more front-end warehouses means that the time it takes to deliver goods from the front-end warehouses to consumers’ homes will be shortened, which solves the high return rate caused by the easy corrosion of fresh food in traditional fresh e-commerce. At the same time, in response to the requirements of new first- and second-tier cities for high-quality fresh food, Dingdong Maicai has gone deep into the upstream planting and processing links, strictly controlling fresh products, and providing consumers with safe and reliable products. These services cleverly link the profit points and profit sources of Dingdong Maicai.

Meituan's profit leverage is embodied in its management model. The business of each region selected by Meituan will be directly reported to the head of the headquarters, and then the local head will be used to promote the project. This management model can transmit the decision of the headquarters more quickly and respond to the needs of the market more quickly. The head also plays a very important role in linking profit points and profit sources. Meituan's profit source has a certain community relationship network. Community group buying relies on acquaintances' regional marketing, and consumers are more likely to develop a sense of trust. This is good for consumers to consume. At the same time, the network of acquaintances and a positive shopping atmosphere created by community group buying also promote consumption behavior and promote the consumption process.

4.4 Profit Barriers

The purpose of profit barriers is to prevent their companies from plundering their own interests. First of all, Dingdong Maicai has SKUs and front-end warehouses that far exceed the industry's second best daily fresh food. This gives Dingdong Maicai a great advantage in delivery speed. Therefore, in such a fresh food platform where the delivery speed is very critical, Dingdong Maicai has basically taken the first place in its industry. Secondly, because the front warehouse can provide a better delivery experience and product quality, the core user group is relatively stable. These stable core users provide nearly half of the GMV for Dingdong Maicai, and these core user groups usually have high stickiness. All of these provide a large number of ordering frequencies for Dingdong Maicai in the daily competition of excellent freshness, and also establish a profit barrier for Dingdong Maicai.

Meituan's profit barrier mainly reflects its lower risk compared to the front-loading model. First of all, most of the front-end warehouses are built by the platform itself, but the community group purchases are operated in the form of third-party franchises, so the Capex is greatly reduced. Secondly, in the construction of the supply chain of Meituan, the profit barrier is to provide the highest cost performance. Therefore, Meituan's purchase method mainly relies on local wholesalers to purchase goods, which also reduces operating costs and further has consolidated its own profit barriers. In addition, Meituan's more refined management can bring a better experience to consumers in the short term, and at the same time, from a long-term perspective, more refined management can also provide cost reduction and efficiency improvement for the company. bring more benefits. In the end, Meituan has the mature ecology and consumer reputation established by the various life service software created by Meituan Group, as well as the rich experience in ground promotion accumulated in the early Thousand Regiments War. At the end of 2020, Meituan Preferred Business Unit The number of members has grown to more than 3,000, including more than 1,000 ground pushers. The strong ground push capability has brought the cooperation of many merchants and the favor of consumers to Meituan.

In contrast, Dingdong Maicai's barriers to grocery shopping are mainly supported by the large number of SKUs built by itself "burning money", the fast delivery speed provided by the front warehouse, and the stable and high-consumption core users. Meituan, on the other hand, relies on the sinking market created by its lower investment risk and rich experience in land promotion to achieve the highest possible price-performance ratio to protect its own profits. The overall comparison is listed in Table 1.

Table 1. profit model comparison

Items	Dingdong Maicai	Meituan
Profit point	High distribution efficiency and low freshness loss	low price gained by working with local supermarket
Profit source	New first tire and second tire city	Three tire and four tire city
Profit leverage	More front warehouse that can shorten the deliver time; high quality of food	Effective managing; group buying's social network can motivate people to buy product
Profit barrier	A large amount of front warehouse and a lot of loyal consumers	Low risk and more detailed management; many years' working experience

5. The Challenges Facing Dingdong Maicai in the Future

5.1 Insufficient Product Differentiation,

The most important question for Dingdong Maicai is how to distinguish itself from its competitors. There are many similarities between them, such as profit model and operating model. The only advantage of Dingdong Maicai now is that the scale of the industry is larger than that of Daily Fresh, but this also brings more expenses to Dingdong Maicai. Therefore, in the first quarter of 2021, the net profit of Dingdong Maicai is that The loss reached 1.385 billion yuan. Therefore, this does not allow Dingdong Maicai to always maintain its advantage in the competition with Daily Youxian. Therefore, Dingdong Maicai should strive to innovate in commodities.

5.2 How to Enter The Fresh Food Market in First-Tier Cities

From the data, the market development level of Dingdong Maicai has been close to saturation in new first-tier cities and second-tier cities, but in first-tier cities, the development level has only reached 4 and is the same as Daily Fresh. Therefore, it is obvious that there is greater potential for development in the first-tier cities. Therefore, the problem lies in how to enter the fresh market in first-tier cities.

5.3 How to Turn Losses into Gains

After comparing the cost rate of Dingdong Maicai in the first quarter of 2020 and the cost rate of the first quarter of 2021, the cost of the first quarter of 2021 was 12.8% higher than that of the same period in 2020. At the same time, the cost of the first quarter of 2021 Net profit was about -15.0%. The net profit loss of Dingdong Maicai was mainly due to the cost of goods sold and contract performance costs, of which the contract performance costs mainly included outsourcing costs for deliverymen and workers and venue rental costs. The funds on Dingdong Maicai's hands can only support its own operation for another 5 quarters, so the key to Dingdong Maicai's current problem is how to convert losses into losses, otherwise, it will only be able to seek financing.

6. Some Suggestions for Dingdong Maicai

6.1 Cost Reduction and Gross Profit Increase Build Fresh Brand

Establishing their own fresh food brand is beneficial to increase customer loyalty, so more customers come back to buy such high-margin products such as "Fresh" pork, "Ding Dong Grand Slam" hot pot ingredients, "Boxing Shrimp" crayfish. Differences in commodities can effectively establish their own profit barriers and prevent Daily Youxian from further jeopardizing the profits of Dingdong Maicai.

6.2 Increase Its Penetration into The First-Line Fresh Food Market

Through the previous comparison, this paper learned that the development of the fresh food market in the first-tier market is not very sufficient. The key to changing this situation is how to achieve fast delivery in first-tier cities while saving its own costs. If companies follow the traditional front-end warehouse model, they must build a lot of front-end warehouses to speed up the transportation of logistics. Therefore, Dingdong Maicai can cooperate with local large shopping malls such as Yonghui and Carrefour, as well as small supermarkets similar to community stores. Dingdong Maicai provides distribution services and large supermarkets and small supermarkets serve as storage units for Dingdong Maicai. Through such cooperation, the cost of warehousing can be significantly reduced while the efficiency of distribution can be maximized. At the same time, Dingdong Maicai can also attract customers to consume through some preferential means.

6.3 Cost Reduction and Gross Profit Increase

During the epidemic, due to the scarcity of front-end warehouses, consumer demand broke out. At the same time, the gross profit of the company has been improved. However, in the current warehouse model, more and more Internet giants have entered the track, and the deployment of front-end warehouses will become more and more comprehensive.This kind of demand explosion is difficult to reproduce. Therefore, Dingdong Maicai should increase its gross profit. Dingdong Maicai can increase the proportion of high-premium and high-quality varieties, such as the high-quality Musang King durian and Australian beef launched by Dingdong Maicai. These high-premium products can bring higher gross profit to Dingdong Maicai. In addition to increasing gross profit, Dingdong Maicai can also share warehousing costs by increasing order density and increasing the scale of the industry. Finally, when its own user stickiness has reached a certain level, Dingdong Maicai can properly reduce the placement of advertisements. These are all effective and can help Dingdong Maicai change from a loss to a profit.

7. Conclusion

7.1 Result

This article mainly compares and analyzes the four profit factors of Dingdong Maicai and Meituan, and give some suggestions for Dingdong Maicai to improve in terms of profit points, profit sources, and profit barriers.

7.2 Effect

Knowing these suggestions can better help people understand the advantages and disadvantages of Dingdong shopping, and help Dingdong shopping to further enhance its industrial scale. Also this can help people to understand the four factors of profit.

7.3 Future expectation

Due to the impact of the epidemic, this study did not conduct on-the-spot investigations on Dingdong Maicai and Meituan, so it can only rely on reading literature on the Internet for comparative analysis. At the same time, these two fresh food e-commerce models are not the only ones in the real market, so the competition faced by Dingdong Maicai will be greater. Future research can compare and analyze several companies to try to reach the real market.

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