

Research on fresh food e-commerce model innovation under the background of COVID-19

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Abstract. Driven by the wave of "lazy economy" and the epidemic, Chinese fresh e-commerce consumption continues to grow, and the industry market scale continues to expand. Under the background of new crown outbreak fresh electrical business model mainly USES the centralized purchasing front storehouse, community marketing model and vertical electrical business operating model, with a surge of orders, the fresh electric business enterprise to develop large-scale further prompt "front storehouse" model and the improvement of purchasing channels and new business model of development, and promote the development of good fresh electricity industry.

Keywords: COVID-19; Fresh e-commerce; Mode innovation

1. Introduction

The sudden outbreak of the novel corona-virus at the end of 2019 wreaked havoc across the country. The sudden "black swan" event not only dealt a heavy blow to China's social and economic development, but also directly affected People's Daily lives. Affected by the epidemic, residents in many places are limited in living, traveling and shopping, and the demand for home supplies is surging, and there is a strong demand for fresh electricity shopping. Fresh electricity effectively solve the store closed, people can't go to purchase fresh problems, solve the residents worry out the risk of infection, solved the general production farmers, ensure the effective supply of fresh agricultural products at the same time, guarantee the residents vegetables, meat, aquatic products, eggs, milk and staple foods and other daily necessities, to safeguard social stability, The daily life of residents and the interests of production farmers have great significance. At present, there are many business models in the fresh e-commerce industry, such as pre-warehouse, pre-store and post-warehouse, community group, store-home, freezers self-picking, etc., but no mature profit model has been formed. After the epidemic, fresh e-commerce enterprises explore how to explore new models, improve the quality and competitiveness of products and services, and how to deal with the opportunities and challenges in the post-epidemic market are urgent problems to be solved.

2. Research on the development status and mode of fresh e-commerce under the background of COVID-19

2.1 The development status of fresh e-commerce under the background of COVID-19

With the development of the Internet and the continuous improvement of modern cold chain logistics technology, the fresh electricity business industry has better technical support. At the same time, driven by the wave of "lazy economy" and the epidemic, Chinese consumers have gradually formed the habit of online shopping. Data show that in 2021, the market size of China's fresh food e-commerce industry is 311.74 billion yuan, up 18.2% year-on-year. During the epidemic period, consumers have strong demand for online fresh purchase, and users' trust in the fresh e-commerce industry is deepened. It is estimated that the scale of China's fresh market will reach RMB 419.83 billion in 2023.

At the present stage, the fresh e-commerce industry is in the situation of coexistence of various business models, among which the front warehouse (such as Daily Premium Fresh, Meituan buy vegetables, etc.), the store warehouse integration (such as Hema Fresh, RT-Mart Premium Fresh, etc.) is mainly distributed in the first and second tier cities, and the consumer groups are mainly white-collar workers in the first and second tier cities. And community group buying patterns (such as optimization, and buy a lot food, etc.) basically satisfies the sinking market user requirements, different business model of fresh electricity to meet different levels of consumer demand, therefore, for a period of time in the future, fresh electric dealer market still will not appear the situation of "dominance", various business modes coexist pattern will continue. Under the epidemic situation, fresh food e-commerce also faces many challenges, such as unsound supply chain system, insufficient staff, imperfect cold chain logistics system, high product loss, inconsistent product quality standards and other problems, which are elaborated as follows:

2.1.1 Contradiction between low customer unit price and high distribution cost of fresh e-commerce

In general, a big problem facing fresh e-commerce is the low price of customers; On the other hand, fresh product production enterprises or farmers have not adapted to the needs of the development of e-commerce in processing, packaging, logistics and other aspects, which makes the e-commerce platform often pay more additional costs when selling fresh products. For example, in order to maintain the freshness of fresh products in the process of transportation, most circulation links are complicated and tedious. To ensure that fresh products do not deteriorate during transportation, the required logistics distribution cost is relatively high, and the characteristics of fresh products make the loss in the process of circulation relatively large. Although the price increase of customers is limited, it shows a downward trend in terms of customers' purchase frequency^[1].

2.1.2 Contradiction between quality diversification and lack of quality standards

The development of fresh e-commerce needs to establish a more perfect trading credit system in product quality assessment, after-sales service and many other aspects. However, fresh products themselves lack of quality standards, the establishment of after-sales service system difficulties and other factors, so that fresh products e-commerce trading credit system still has a large space for improvement. Fresh perishables are not allowed to be returned on 7 days without any reason, which requires a higher level of credit system^[1-2].

According to the user rights protection cases received by the e-commerce consumer dispute mediation platform, the complaints of fresh and new retail mainly focus on the following seven aspects: product quality problems, shoddy goods, long overdue delivery, logistics delay, easy to cancel orders, difficult to refund money and not timely return, false publicity, poor after-sales service. Production enterprises, cooperatives, e-commerce platforms, relevant associations and other social and industrial organizations should study and establish the relevant standard system of fresh product e-commerce to promote the development of fresh product e-commerce in line with the direction of standardization. At the government supervision level, it is necessary to fully implement the "E-commerce Law", "Food Safety Law" and other laws related to fresh products e-commerce, introduce corresponding policies and measures, and establish a regulatory system in line with the characteristics of fresh products e-commerce according to the characteristics of fresh products e-commerce.

2.1.3 Contradiction between technical attributes of e-commerce platform and complexity of supply chain management

The production and transportation of fresh products involve very complex problems. For example, inputs in the production process of fresh products may affect the final quality of products, but it is difficult for e-commerce platforms to realize whole-process monitoring of production inputs. For another example, the process of fresh products from field to e-commerce warehouse involves harvesting, field rough finishing, sorting, transportation and other processes. These

processes will have an impact on the quality of products, which shows that the nature of fresh products and standardized industrial products have essential differences. This requires more sophisticated supply chain management capabilities and technologies. However, the technical attributes of e-commerce platforms are mainly information technology, which has advantages in processing customer big data, tracking orders and scheduling resources. However, most of them are not competent in fresh supply chain management except for a few e-commerce platforms. Therefore, when fresh e-commerce begins to develop and the scale continues to expand, the e-commerce platform will face great pressure^[4].

2.2 Research on the operation mode of fresh food e-commerce under the background of COVID-19

2.2.1 The pre-warehouse mode of centralized purchasing

As mass consumption upgrades and the demand for consumer convenience of life, food quality and safety is the most factors of consumers, fresh electricity enterprises usually adopt "centralized purchasing + community front storehouse" mode, through the self-built logistics distribution, to meet consumer demand for fresh quality and improve overall operating efficiency. "City purchase" means a dedicated purchasing team is responsible for daily bulk purchases in local city wholesale markets. The innovation point of the distribution model "centered on community pre-warehouse" is that the goods are first transported to each pre-warehouse from the central warehouse, and then delivered to consumers by the self-established logistics team after consumers place orders^[3-4].

2.2.2 Community marketing model

First of all, advertising on social applications for precision marketing, precise positioning of the main group of fresh e-commerce enterprises, to attract the first batch of initial users; Secondly, to acquire new users through social media and offline promotion, and to attract users to register through low-cost means; Finally, in terms of user retention, the activity of users can be improved by obtaining points and other means, and the online experience of consumers can be improved by activities, so as to increase the consumption and purchase rate.

2.2.3 Vertical e-commerce operation model

The characteristic of vertical e-commerce operation mode is to carry out professional operation for a specific industry or market segment. Fresh e-commerce enterprises are positioned in the "small and beautiful" field, the high frequency of purchase, consumption of just needed vegetables as the main category of its vertical field. Accordingly, the vertical field is also subdivided into the target group, namely, fresh e-commerce enterprises mainly target at pregnant and infant groups, office workers and other community groups, to solve the immediate consumption demand and local purchase demand of the target group.

3. Research on fresh food e-commerce model innovation under the background of COVID-19

3.1 Large-scale development of "pre-warehouse" mode

Due to the fixed costs such as warehousing, and the low order quantity and customer order price, the pre-warehouse mode is still difficult to make fresh e-commerce enterprises profitable in the short term. Therefore, the large-scale development of warehouse is fresh electricity business enterprises must adhere to the long-term doctrine. In the context of the epidemic, fresh e-commerce enterprises should accelerate the development of pre-warehouse, and more to the local fresh service less developed areas. The large-scale development of front-loading position has brought the increase of gross merchandise volume, and the expansion of scale has not only expanded the market share, but also greatly changed the cost structure of the whole model^[4].

3.2 Development of new business models

Therefore, fresh e-commerce enterprises can not be limited to improve the re-purchase rate of orders to achieve profit, but gradually develop a new business model, explore new profit channels. For example, Ding Dong CAI launched a new business of "Kuaishoucai" in early 2021, that is, standardized processing of raw materials, which can be eaten directly after purchase or immediately after heating and simple cooking. At the same time, Ding Dong buy vegetables also built a fresh food factory, for the offline fresh food store to open a perfect supply chain source. "Kuaishou dishes" and the business innovation of offline fresh food stores not only meet the changes in consumer demand, but also break the restriction of fresh products. At the same time, half of the dishes have the characteristics of high gross profit margin, which can improve the price of each order of customers and improve profits.

3.3 Construction and improvement of procurement channels

With the increase of orders and shipments, supply chain construction has become the key to improve the core business ability of fresh e-commerce enterprises. Among them, direct sourcing of agricultural products at the source, wholesale procurement of large warehouse in regional and urban centers is the most core part of the supply chain of fresh e-commerce enterprises. Therefore, during the epidemic, major fresh e-commerce enterprises have increased the construction of origin processing centers, and continued to increase the scale of procurement channels^[5].

4. Summary

To sum up, the consumption demand brought by the epidemic not only makes fresh e-commerce enterprises carry out profit model innovation, but also makes them realize the importance of supply chain operation ability and logistics ability. In addition, post-pandemic customer retention issues also require fresh categories and product quality. At present, fresh electricity industry is not only a variety of business models coexist and rapid development, fresh electricity enterprise in product quality, service experience, content, function better meet after spending habits change and demand for new infrastructure, business model innovation, explore the profit pattern of more mature, promoting the development of fresh electricity industry to mature. Fresh e-commerce enterprises should make full use of technology to improve the supply chain capacity; Increase the product category, improve the purchase frequency; Increase traffic scenarios to improve retention; Ensure the quality and service, improve the brand value, in order to continuously release the market potential, enhance the enterprise's lasting competitiveness.

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