Research on Fresh Produce Sales Optimization Based on New Retail Context

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ABSTRACT
In the context of the rapid development of the Internet, the development and application of technologies such as big data and cloud computing have driven the continuous innovation of retail enterprises and brought new sales models. In recent years, the development of e-commerce has given rise to a variety of new sales channels for fresh produce, while traditional supermarkets and vegetable markets are still in existence. Due to the special characteristics of fresh produce, the sales and operation of fresh produce are very difficult. This paper takes fresh produce sales in the context of new retailing as the research object, through the analysis of fresh supermarket, online retail, traditional vegetable market three major sales models, puts forward the corresponding feasible optimization methods, such as grasping customer consumption tendency, optimize logistics supply chain, improve shopping experience, etc.

Keywords: *Fresh produce, new retail, business model*

1. INTRODUCTION

Food is the most important thing for people. Food, tobacco and alcohol have always taken up the highest proportion in the per capita consumption expenditure of Chinese people. Take 2020 as an example, it accounted for 30.2 percent. Among them, fresh produce has the characteristics of high consumption frequency, which is the rigid demand of people's life. According to the National Bureau of Statistics, 2019 Chinese residents mainly fresh produce consumption of 3.1 trillion tons. As people consumption level has increased, the demand for fresh produce will continue to grow. This huge demand also led to the rapid development of the fresh produce retail market. In recent years, China's fresh produce retail market has maintained steady growth. In 2020, the scale of the fresh produce retail market exceeded 5 trillion yuan. At the same time, driven by the epidemic, the scale of the fresh produce market has grown even faster. However, with the continuous innovation of retail methods, both online and offline fresh product sales models are facing challenges brought by the new era. The huge scale and rapid development of fresh produce market plays an important role in the rapid development of China's economy. Meanwhile, the sales of fresh produce also play a reference role in the sales of other produce, so the research on the optimization of fresh produce sales is of great significance.

2. FRESH PRODUCE SALES MODEL IN THE CONTEXT OF NEW RETAIL

2.1. Fresh Produce Supermarket

Fresh produce supermarkets are a major mode of selling fresh produce in China in recent years, and there are currently a large number of supermarket brands in the market, with several larger brands in the industry, but no large monopolistic oligopoly. In the context of new retailing, fresh produce supermarkets mostly adopt the business model of "online shopping + offline experience + in-store catering + logistics and distribution" to operate, dividing the store into a retail area and a catering area to create multiple experiences (Wang Jing, 2021). The online-offline sales model is a major feature of fresh food supermarkets. In the case of Boxmart Fresh Life, for example, customers can select products and place orders on the Internet, and they can choose to receive the purchased goods at home through delivery. In offline stores, fresh supermarkets offer a wide selection of fresh goods. Customers can trace the production and transportation process of the goods by scanning the QR codes on the goods shelves to ensure the freshness of the fresh goods. After purchasing the

fresh products, customers can choose the store's OEM service and enjoy the purchased fresh food products directly at the store. The main feature of fresh supermarkets is the availability of mature and large-scale warehousing and logistics. Almost all fresh supermarkets have their own warehouses and can rely on their parent company's business system to integrate and optimize the supply of multiple suppliers to ensure quality and quantity to the maximum extent. Moreover, the logistics, warehousing and retailing of fresh produce supermarkets are combined with Internet applications, and most of the branded supermarkets mainly sell good quality goods at high prices, so they are mainly oriented to the young group with strong consumption power.

2.2. Online e-commerce channels

Online fresh produce sales is an emerging product that combines Internet technology and mobile applications in recent years. Based on big data, cloud computing and other technologies, the original consumption model of agricultural products has been transformed, and fresh produce retailers have integrated the supply chain and value chain and adopted the direct delivery of fresh produce to customers, forming a new retail model. E-commerce companies build large warehouses and many front warehouses in cities, centralize all purchases directly to the large warehouses, and divert different goods to each front warehouse according to the purchase demand generated by the data, and wait for distribution. For example, "Dingdong Buy" uses the front warehouse fresh e-commerce model, which combines the Internet and agricultural production, so that customers do not need to go to offline stores to make purchases, but can directly browse the fresh goods provided by merchants on their cell phones, place orders, and have the platform send riders to deliver the goods to their addresses. The platform will send riders to deliver the products to the customer's address. Moreover, the supply chain of online e-commerce is very transparent, and the platform is able to screen the goods to a great extent to ensure that the quality of the goods purchased by customers is as described. Customers can use the platform to control the quality and price of goods, compare prices for different fresh products, and choose the fresh products that best meet their price and quality expectations. In 2020, the daily active user base of "Dingdong Buy" exceeded 1.5 million, and the daily orders on the platform exceeded 200,000. In the context of the epidemic, the fresh produce retail channel of online e-commerce has exploded in growth, but most companies are still not profitable or even in a loss-making situation.

2.3. Traditional Vegetable Market

Traditional vegetable markets have been one of the main sales channels for fresh produce, although the development of smart devices has given rise to a variety of emerging channels for buying groceries, and the proliferation of modern digital technologies has created an uneven, unbalanced state, the digital divide, which has further exacerbated the problem of resource allocation in society. Older as well as less educated people are less receptive to electronic products and new technologies and take longer to learn to use technology, and the percentage of people over 60 using smartphones is low at less than 50% (People's Daily, 2020). The e-commerce sales channel for fresh goods does not reach the entire population. Most of the older consumers still choose traditional vegetable markets as the main channel to purchase fresh vegetables. Moreover, the operators of traditional vegetable markets are mainly elderly and low-education groups, which are in a disadvantaged position in society, and traditional vegetable markets provide a large number of jobs for such people. Once the traditional food court is abolished, the basic life of a large part of the marginalized groups in society is difficult to guarantee, and the physical food court is an important platform to maintain the survival of a large part of society. In addition to being a business model, traditional vegetable markets are the cultural characteristics of the city's business symbol, an important indicator of the happiness of city residents, and are crucial in the development of urban civilization and the government's livelihood project.

3. ANALYSIS OF FRESH FOOD SALES MODEL PROBLEMS IN THE CONTEXT OF NEW RETAIL

3.1 Fresh produce supermarket problem analysis

The quality of fresh produce in fresh produce supermarkets is high and the price is very expensive, and the consumer group is relatively narrow. With this model, fresh produce supermarkets can save the transportation cost from warehouse to retail and shorten the time from warehouse to shelf, which greatly solves the problem of short shelf life of fresh produce and poor storage resistance. However, the problem with this model is that the location of fresh supermarkets is mostly located in busy urban areas, and the great scale of warehousing will sharply increase the cost of goods, so fresh supermarkets are very dependent on the parent company, and in the absence of support from the parent company, the cost of goods of fresh supermarkets will rise significantly, so that their competitiveness in the industry will be reduced.

Secondly, the suppliers of fresh produce supermarkets are very irregular, and the purchasing department selects and changes suppliers through factors that affect prices such as the region where the supermarket is located and the current season, which

leads to a very unstable source of goods for fresh produce supermarkets.

3.2 Online e-commerce channel problem analysis

In the process of supplying goods, many suppliers of fresh products send their goods to the unified city warehouse, and then triage them in the city warehouse, and assign different goods to different front warehouses according to different volumes. In the process of supplying goods, many suppliers of fresh products will send the goods to the unified city warehouse, and the goods will be divided in the city warehouse, and different goods will be distributed to each front warehouse according to different amounts. When the user places an order, the front warehouse will configure the fresh products needed by the user according to the demand, and then the rider will go to the front warehouse to pick up the goods and deliver them to the customer. According to this mode of operation, a large number of storage bins need to be established in the city, which greatly increases the cost of goods, but the audience of fresh food e-commerce is extremely limited, mainly facing the young and middle-aged consumer groups, so fresh food e-commerce, despite the huge potential for future development, but the current operating income is generally low. According to e-commerce center statistics, only 1% of companies in the industry are profitable. Dingdong Buyer's revenue continued to grow in the first three quarters of 2021, but it is not yet profitable.

3.3 Traditional vegetable markets problem analysis

The main dilemma of traditional vegetable markets is mainly in the supply chain, product quality testing, and the environment in several aspects. The traditional food markets fresh food retail merchants are complicated, there are many categories, and the procurement mode is mainly based on local dealers in rural areas selling in bulk in the wholesale market, which leads to great differences in the product purchase channels of different merchants, therefore, most of the merchants' supply chain construction is not stable and cannot establish stable incoming records and traceability of products. The on-time supply of products is not guaranteed. Moreover, the ponderous incoming channels and the lack of regulatory measures lead to a lack of monitoring of fresh products sold in food establishments. In case of quality problems of fresh products, it is difficult for customers and regulatory agencies to trace the source of goods, which leads to uneven quality of fresh products sold in traditional food establishments and difficulties for customers to defend their rights when they buy problematic products. In terms of commercial space planning and layout, the planning of traditional food markets is also mostly outdated and unscientific, and it takes more time for customers to find the goods they need in the food court, which cannot meet the diverse purchasing needs of contemporary consumers. In addition, with the development of digital technology, fresh food supermarkets and fresh food e-commerce have gradually occupied most of the sinking market, especially in the context of the epidemic, e-commerce channels are growing in spurts, occupying a large part of the market share of traditional vegetable markets, further compressing the survival environment of traditional vegetable markets.

4. OPTIMIZATION OF FRESH PRODUCE SALES IN THE CONTEXT OF NEW RETAIL

4.1 Fresh produce supermarket optimization suggestions

As a sales channel for fresh produce at higher prices, it is crucial to grasp the consumer tendencies of customers. High-quality, high-priced fresh produce needs to be geared towards the corresponding consumer groups. Supermarkets should be more scientific in collecting browsing and consumption data generated by customers in the online applications they provide to customers. When facing different customers, supermarkets should build different user profiles for customers and make different recommendations for different consumers to increase the sales of goods and the user viscosity of merchants. Fresh food supermarkets need to use more advanced technology to solve the supply chain problems, choose the location of stores more reasonably, optimize the logistics process, maximize cost savings, thus reducing the price of goods and achieving higher competitiveness among similar businesses. In addition, merchants need to optimize the overall shopping experience from various aspects, and the applications matched with offline stores should be designed to meet the needs of people of different ages and cultural backgrounds. The purchase process and the operation of the program should be simplified as much as possible to help the less educated and older customers to complete the shopping process. The design of the store should also be simple and easy to understand, so that customers who are not good at using electronic products and Internet applications can easily find the products they need, compare prices intuitively, and choose the most suitable products.

4.2 Online e-commerce channel optimization suggestions

The cost of warehousing and transportation, as well as the high loss rate and high promotion cost of fresh

products, are the main costs in the online e-commerce sales channel. In order to reduce costs as much as possible and improve the competitiveness of the industry, online fresh produce merchants need to use data science to optimize the supply chain and find the most cost-effective product supply. At the same time, the location of warehouses in cities needs to be optimized with big data to reduce the cost of warehousing, as well as minimize the distance required for riders to deliver goods, thus saving costs. In addition, despite the rapid growth of online e-commerce during the epidemic, the volume of the industry has expanded massively, and a significant number of companies have entered the industry, but the overall online e-commerce channel selling fresh produce is still a loss for most businesses. Merchants should broaden the user base, fresh e-commerce sales model largely makes the channel only for young high-income groups, merchants need to develop more user groups, to find the user's willingness to buy, in order to improve sales, and thus improve profits, to reverse the loss situation. In addition, because the industry is in its infancy, there are considerable new brands and companies entering the industry each year, many companies in order to occupy the user market, the price war generated excessive internal consumption situation. Fresh e-commerce enterprises should avoid internal consumption, focus on improving product quality and service quality, rather than rely on price alone to occupy the market, resulting in excessive competition.

4.3 Traditional Vegetable optimization suggestions

The main measure to solve the dilemma of traditional vegetable markets needs to rely on the government's policy leadership. Vegetable markets are a large part of the employment security of the population, but also a convenient government projects for the people. Therefore, the future development of traditional vegetable markets, to a large extent, needs to rely on government support, the government needs to strengthen regulation as well as provide subsidies to provide the basis for the deep transformation and development of traditional vegetable markets. On the one hand, it needs to strengthen the supervision and control of prices, product circulation, food safety and other aspects, and use information technology to promote the integration of traditional vegetable markets and emerging information technology to help traditional vegetable markets establish a perfect supply chain mechanism, so that the products in traditional vegetable markets can be traced and supervised. On the other hand, the government needs to subsidize and support the operation of traditional vegetable markets. The Ministry of Commerce has made it clear that physical vegetable markets cannot be abolished at will, and that physical vegetable markets have a rather important position in the construction of towns, and that the government should combine the actual situation of vegetable markets, put forward the future rectification mode and development direction, assist the transformation of traditional vegetable markets, analyze the sales and management of vegetable markets by means of big data, and visualize and share the data generated by vegetable markets. Data visualization and information sharing to form a dynamic trend analysis. Determine the future development direction and planning of vegetable markets, and for the traditional vegetable markets to a certain degree of economic subsidies, traditional vegetable markets merchants are mainly small and micro merchants, risk resistance is weak, the government's support and subsidies for the operation and development of merchants is essential.

5. CONCLUSION

Fresh produce supermarkets, online e-commerce channels and traditional vegetable market, as the three main ways of fresh produce sales, all have their own development problems, such as narrow consumer groups, high sales cost, unstable supply chain, unwarranted product quality, the severe competitive environment. Faced with these problems, merchants should optimize their sales methods by grasping customers' consumption tendency, optimizing logistics supply chain and improving shopping experience. At the same time, the government should take policy guidance to reduce market competition pressure and improve product quality.

Fresh produce sales optimization, is conducive to the rapid development of fresh market, to meet the people's consumer demand, to promote the steady development of China's economy, and also to meet the people's growing needs for a better life, which alleviates the main contradiction, promotes the steady development of a well-off society and the great rejuvenation of the Chinese nation. It is hoped that these optimization suggestions can bring positive influence to the sales optimization of fresh produce and promote the sustainable and steady development of fresh produce market and Chinese economy.

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