

The Development Prospect of Prefabricated Dish Industry

Xidan Zhang^{1,a,*}

¹*School of International Education, Xiamen University of Technology, Ligong Road, Xiamen, China
a. 202002033218@stu.sdp.edu.cn*

**corresponding author*

Abstract: In recent years, prefabricated dishes is a rapidly developing emerging industry in China. With a long industrial chain, wide connections and high technical requirements, it has become an important productive force for the upgrading of agricultural industry and has great development potential. However, the development of China's prefabricated dish still faces problems such as non-standard industry standards, unstable quality, low consumer acceptance, and insufficient innovation ability. The purpose of studying prefabricated dish is to explore more market potential, promote the upgrading of prefabricated dish industry, and meet more consumer needs. This paper introduces the present situation of China's prefabricated dishes, analyzes the different characteristics of overseas mature prefabricated dishes, and provides a development path for reference. It is suggested that the future prefabricated dishes industry should pay attention to food safety, expand sales channels, innovate dishes, and establish brand and marketing system. It also provides new ideas and suggestions for the future development of predicted dishes.

Keywords: Prefabricated dish, Development status, Future development.

1. Introduction

In recent years, the prefabricated dish industry has developed rapidly, with long industrial chain, wide connection and high technical requirements. The consumer market faces more diversified user needs and more dispersed locations, and the amount of a single order is small and the frequency of purchase is high. The profit model is significantly different from the business market, and there is also diversified demand for all aspects of product production. At present, the status quo of the prepared dish industry is in the stage of standardized development, the scope of generalization, the standard is not uniform, and the industry concentration needs to be improved; The integration degree of industrial chain is low, and the scope of industrial policy support is inconsistent; The brand influence is low. People are worried about food safety and the supervision system is not perfect. But the potential of China's prepared vegetable market is still huge.

There has been some studies on the development of prefabricated dish in China. Most of them think Chinese prefabricated dish industry is a very potential market and an important hub to promote the integration and development of various industries. Their research found the characteristics of the development of prefabricated dishes in the Chinese market. For example, Wang et al. found that Chinese prefabricated dishes are characterized by regionalization [1]. Furthermore, Yang et al. research through blockchain technology, using its characteristics, improve the data collection and sharing of the prepared dishes supply chain, establish an efficient traceable system, which is

conductive to food quality management, improve the food safety of prepared dishes, and safeguard the rights and interests of consumers.[2]

Many people have also analyzed the current obstacles to the development of prefabricated dishes. For instance, Fang et al. studies the advantages of the future development of prefabricated dishes are analyzed. In addition, the paper mainly analyzes the obstacles to the development of prefabricated dishes in the poor economic environment, such as the lack of policies, unstable food quality, cultural differences and other factors, and puts forward corresponding suggestions [3]. And Xia used literature research method, questionnaire survey method and frequency analysis method to find the imperfect development of the supply chain of prefabricated dishes is an obstacle to the future development of prefabricated dishes. It is suggested that the efficient cooperation between prefabricated dishes and supply chain can reduce the intermediate flow link, reduce the cost and improve the efficiency, which is conducive to the long-term development of the catering industry [4].

Some people study the influence of Chinese people's willingness to consume prefabricated dishes. Xiong et al. used Grounded theory to research the influencing factors on Chinese people's willingness to consume prefabricated dishes. It is concluded that external factors such as product advertising, brand, quality and price are the decisive factors affecting consumers' purchase of prefabricated dishes. And internal factors can moderate external factors. In this way, the government and society can launch corresponding measures to stimulate the consumer market and expand the prepared vegetable market [5]. Besides, Luo et al. used the ZMET method to investigate the consumption patterns of Chinese consumers on cold chain prefabricated dish, focusing on the impact of cold chain dishes on brand preference and purchasing behavior. The research shows that the brand value, quality, convenience and economy of dishes have a significant impact on consumers' attitude. At the same time, this paper proposes a new method to measure the perceived value of the cold chain, and explores the moderating effects of shelf life and vulnerability on consumer choice. This paper emphasizes the importance of improving the quality of cold chain assembled dishes and controlling food safety, but also points out some limitations of samples and methods [6].

There are also studies of established prefabricated food brands in China and examples for future prefabricated food development. Such as, Wu used Freshippo, a retail grocery chain, to analyze the differentiated competitive strategy of prefabricated dish. Freshippo established its own brand, then set up supply chain operation centers and central kitchens in major cities in China, and used its Internet advantages to conduct big data analysis to meet consumers' differentiated analysis of prefabricated dish. It provides a good demonstration for the future retail of prefabricated dishes [7]. Xu adopted a qualitative research method to analyze the consumer reputation of JD's self-branded prefabricated dishes. The study found that the specific context is conducive to stimulating consumers to actively spread word of mouth about prefabricated dishes. Secondly, the continuous innovation of prefabricated vegetable products can cause consumers to be surprised, and then carry out word-of-mouth dissemination. At the same time, post-purchase behavior will affect the long-term development of prefabricated dish companies [8].

When facing the future development of prefabricated dishes. Jia et al. believes that the efficiency of the central kitchen can meet the needs of the future development of prefabricated dishes. But any fabric technology, food safety, food quality instability and other problems. In order to promote the further development of prefabricated dishes, it believes that the current focus should be on innovative emerging technologies to stabilize the quality of prefabricated dishes and ensure food safety [9].

In addition, Tharrey's study was designed to compare the costs of industrially processed food with those of prefabricated food at home, against the backdrop of increased demand for convenience foods from the pressures of modern life. it collected data from four major food retailers in the French city of Montpellier, analyzing the direct purchase costs, raw material costs, energy consumption and time costs of industrially processed and home-made foods. The results show that home-made food is lower

in raw material costs and energy consumption, but the overall cost of industrially processed food is more economical when time costs are taken into account. Therefore, it recommends that consumers should consider the time cost of prefabricated food at home when choosing food, especially in light of the increased stress of modern life [10].

2. Development Status of Prefabricated Dishes in China

2.1. The Market Size of prefabricated Dishes

In recent years, the scale of China's prepared vegetable market has grown steadily. In 2022, the scale of China's prepared vegetable market reached 419.6 billion yuan, an increase of 21.3%. It will reach 516.5 billion by 2023. It is predicted that the next 3to5 years will continue to grow steadily. At the same time, the regional characteristics are significant, and the industry concentration is low.

2.2. Categories of Prefabricated Dishes

According to the standards of the China Cuisine Association, prefabricated dishes are divided into the following four categories: prefabricated dishes(such as eight treasures congee, ready-to-eat canned dishes); Hot prefabricated dish (such as frozen dumplings, self-heating hot pot); Cook prefabricated dishes(semi-finished dishes that must be cooked with heat); With pre-prepared vegetables (e.g. no-wash, no-cut vegetables).

2.3. Market Participants and Competition of Prefabricated Dishes

The Hurun Research Institute's Top 100 prefabricated dishes lists the top 100 most influential Chinese enterprises in the industry. From the perspective of geographical distribution of the brand, it is mainly distributed in Guangdong, Shanghai and Hunan. The brand distribution is uneven, and here are wide regional variations in brands.

The main business of food processing enterprises accounted for more than 50%, represented by Anjoy Foods, CongChu company, Haodlai company, Wei Zhixiang company, etc.; Catering enterprises accounted for more than one-fifth, represented by YumChina, Juwei company, etc.; 18% are mainly engaged in agriculture, forestry, animal husbandry and fishery business, represented by Fucheng company, Guolian company, Sunner group, etc.

In general, food processing enterprises are the main participants, accounting for more than half, and the industrial base of these enterprises is more conducive to the expansion and even transformation of the category, representing enterprises such as Yasui Food. Catering enterprises account for 22%, and the advantages of the supply chain make it occupy an important position in the field of prefabricated dish. Agriculture, forestry and fishery enterprises accounted for 18%, and these enterprises have upstream raw material advantages. Retail businesses accounted for 4%, mainly for the consumer market, representing companies such as Freshippo.

2.4. Government and Regulation of Prefabricated Dishes

The government has done a lot to promote the safe development of prefabricated dish. For example, first of all, regulate the scope of prefabricated dish, vigorously promote the use of prefabricated dishes in catering links, and protect consumers' right to know and choice. Secondly, research and formulation of prefabricated dish safety national standards and quality standards. Third, strengthen the safety supervision of prepared vegetables, strengthen the management of production permits, and increase supervision and inspection.

3. Overseas Prefabricated Dishes Industry Model

3.1. Japanese Convenience Store Chain

Japan's prefabricated dish market is relatively mature, and Japan's prefabricated dishes are rich, including frozen ready-made meat and aquatic products, cooked or hot frozen prefabricated dishes, frozen fried rice and frozen dumplings and other staple food prefabricated dish. Most of the major participants in Japan's prefabricated dish enterprises are chain convenience stores, such as 7-Eleven, whose high customer stickiness brings continuous re-purchase of prefabricated dish, becoming the leader of Japan's retail prefabricated dish. Economic development and demographic changes are the main factors driving the development of the prepared wet market. As the employment population grows and cooking time decreases, the penetration rate of prefabricated dishes in customer markets continues to increase. At the same time, the trend of aging and fewer children has led to an increase in the elderly population and single people living alone, further driving the demand for prefabricated dishes in the customer market. In addition, labor shortages have prompted catering companies to increase the use of prefabricated dishes in business markets. In recent years, Japan's employment population and retail sales of the catering industry have rebounded, driving the growth of demand for prefabricated dish. However, the environmental factors of the pandemic in 2020 led to a decline in the demand for prefabricated dishes in the business market. In short, driven by economic development and demographic changes, Japan's prepared vegetable market shows a switch between customer market and business market channels.

3.2. American Integrated Full Supply Chain for Prefabricated Dishes

Most of the prefabricated dish enterprises in the United States are integrated full food companies, with channel advantages and brand advantages, and carry out market expansion through horizontal mergers and acquisitions and multi-brand operation. For example, Nestle, which started with baby food, entered the prefabricated dish circuit through mergers and acquisitions. It is now the leading C-end prefabricated dish enterprise in the United States, with 8 prefabricated dish brands, covering American, German, Italian and other cuisines.

Prefabricated dish originated in the United States in the 1940s and were commercialized in the United States in the 1960s, which led to the birth of the world's largest food supplier, Sysco.

Founded in 1969, Sysco went public in March 1970 and has grown from an initial \$115 million in annual sales to \$51.3 billion by 2021. Sysco operates more than 400,000 products, of which its own brands account for about 10%. Sysco is also the benchmark enterprise of many supply chain enterprises in China. Zhang Yong, the founder of Haidilao, has publicly stated many times that it was inspired by Sysco that Shuhai company, which mainly supplies food for Haidilao, was created [11].

However, first, the terrain of the United States is mostly plain, and agricultural production is highly mechanized; Second, the chain rate of American catering enterprises is high, and they have a great demand for stable supply chain. Third, Westerners tend to prefer Western food, and Western food processing methods are generally simple.

Therefore, due to the influence of eating habits and external factors, Chinese prefabricated dish enterprises may not be able to follow Sysco's merger and acquisition growth path. The only thing that can be used as a reference may be to carry out fine operation, so as to reduce costs and increase efficiency while meeting the needs of Chinese and foreign restaurant chain enterprises for stable supply chain.

4. Future Development Prospects of the Industry

4.1. Improve Food Safety

At present, the prepared dish industry lacks unified standards and targeted supervision, and there are some problems. For example, some operators choose to deliberately conceal the use of prefabricated dish for the purpose of maximizing benefits, which not only infringes the legitimate rights and interests of consumers, but also disrupts the market order. In the future, it is necessary to establish a complete and strict industrial management and traceability system and a regulatory system for the safety review of prefabricated dish. This is a unified, authoritative and enforceable standard system. This system should fully cover all aspects of the production and operation of the prepared vegetable industry, and standardize multiple dimensions such as product quality, ingredient ratio, nutritional value and processing technology. Through the development of clear standards, it can ensure that the prefabricated dish products on the market meet a certain level of quality, to provide consumers with a reliable basis for choice. At the same time, for consumers to make informed purchasing decisions, companies must be required to fully disclose information related to prefabricated dish products, including but not limited to the source of raw materials, processing technology, and nutritional composition of the product. In the process of constructing this standard system, it is important to ensure the safety and quality control of prepared vegetable products.

4.2. Expand Sales Channels

The future development of prefabricated dish should broaden the consumption channels, pay attention to the C-end consumer market, large chain enterprises can consider sinking development, tap the market potential of counties and townships; It is also possible to apply prefabricated dish to different consumption scenarios, for example, community catering, night market snack street. Secondly, the future development can also learn to refer to overseas models, such as the distribution through chain convenience stores in Japan, or the development of integrated supply chain in the United States. Third, focus on overseas markets, export trade, can be through the Internet model, such as cross-border e-commerce. Particular attention is paid to overseas Chinese groups, such as international students.

4.3. Innovation of Dish Types, Production Methods and Consumer Use Methods

Focus on increasing the diversity of prefabricated dish, according to different local characteristics, development and production of special prefabricated dish. At the same time, innovative production methods, as far as possible to simplify the use of consumers, but also strive to retain the original characteristics of dishes.

4.4. Focus on Brand Establishment and Marketing to Help Develop Industry Leaders

At present, there is no special prepared dish brand known to consumers, and some explosive products can be launched to increase product visibility. We should pay attention to the branding development of individual prefabricated snack enterprises and expand their influence. Second, focus on marketing. For example, marketing can focus on the health of prefabricated dish, highlighting the green health of raw materials, the cleanliness of the production process, the stability of the quality and taste of the dishes, and try to eliminate the original prejudice of consumers against the long-term preservation of prefabricated dish.

5. Conclusion

Therefore, the potential of China's prefabricated dish industry is huge. The market size has grown rapidly in recent years and is expected to continue to grow steadily in the next few years. And the industry participants are diverse, food processing enterprises, catering enterprises, agriculture, forestry, animal husbandry and fishery enterprises are involved in the prepared vegetables industry. However, the market competition is still fierce, the regional brand differences are large, and the industry concentration is low. Problems such as low standardization, unstable quality, low consumer acceptance, insufficient innovation ability, and food safety will continue to face challenges in the future development, so it can learn from foreign experience, such as the Japanese convenience store model and the integrated full supply chain in the United States. The future can be improved by improving food safety; Expand sales channels, develop online and offline sales channels to meet the needs of different consumption scenarios; Innovate dishes, develop more types and more convenient prefabricated dish to meet diversified consumer needs; Establish a brand and marketing system, eliminate consumer bias towards prefabricated dish, and guide consumers to accept prefabricated dish to promote the development of prefabricated dish.

References

- [1] Jing-xiang W, Zhong-ming Z, Ji-yue L I, et al. Development Characteristics and Trend Prediction of Prefabricated Dishes Industry in China[J]. *Science & Technology of Cereals, Oils & Foods*, 2024, 32(1).
- [2] Yang J, Wang F, Wang Q. Construction of a Blockchain-based Quality Traceability Platform for Prefabricated Dishes[C]//2023 International Conference on Intelligent Management and Software Engineering (IMSE). IEEE, 2023: 135-140.
- [3] Fang S, Li Y, Zhou J. Analysis of the Reasons of Obstacles to the Development of Prepared Dishes in Chinese Market[J]. *Finance & Economics*, 2024, 1(7).
- [4] Yongzhen X. Integrated Analysis of Prefabricated Vegetables and Logistics Supply Chain[J]. 2023.
- [5] Xiong Y, Lin X, Wen X, et al. The Analysis of Residents' Intention to Consume Pre-Made Dishes in China: A Grounded Theory[J]. *Foods*, 2023, 12(20): 3798.
- [6] Luo F, Shang W, Gan J. A study on the adoption intention of cold chain prepared Dishes based on consumer orientation mentality[J]. *SPEKTA (Jurnal Pengabdian Kepada Masyarakat: Teknologi dan Aplikasi)*, 2023, 4(1).
- [7] Wu Q. Differentiated Competitive Strategy in The Ready-To-Cook Food Market: A Case Study from Freshippo[J]. *Highlights in Business, Economics and Management*, 2023, 20: 394-399
- [8] Xu X. Word-of-mouth generated influences of different prepared dishes via online consumer purchases: Preliminary text-based research findings from "Jingdong Mall" flagship shops[J]. *Plos one*, 2024, 19(3): e0297972.
- [9] Jia Y, Hu L, Liu R, et al. Innovations and challenges in the production of prepared dishes based on central kitchen engineering: A review and future perspectives[J]. *Innovative Food Science & Emerging Technologies*, 2023: 103521.
- [10] Tharrey M, Drogué S, Privet L, et al. Industrially processed v. home-prepared dishes: what economic benefit for the consumer?[J]. *Public Health Nutrition*, 2020, 23(11): 1982-1990.
- [11] Hurun.2023 Hurun China's Top 100 Pre-cooked Food Industry Company list.(2023-03-03)[2023-07-15]<https://www.hurun.net/zh-CN/Info/Detail?num=F1C3ESQLK103>