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Research on the Development of Pre-packaged Food Industry in China

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Abstract

This paper analyzes the Chinese pre-packaged food industry to provide reference for its high-quality development. It adopts methods such as literature analysis and data comparison. In foreign countries, the United States has achieved maturity in the B-end market through industrialization, while Japan has adopted a refined approach to build a complete channel network. The Chinese pre-packaged food market has experienced significant growth in the past five years, going through three development stages, with problems such as product homogeneity and lack of standards. However, it has conditions such as well-developed cold chain and the support of new retail. The solutions are to improve standards, enhance processing levels, and promote coordination between upstream and downstream. The industry is transforming from "wild growth" to "value creation", helping to promote agricultural industrialization and consumption upgrading.

Keywords

Pre-made Dishes; Food Industry; Current Status of Industry Development.

1. Introduction

1.1. Research Background and Significance

With the rapid development of the economy, pre-made dishes, relying on their characteristics of convenience, quickness, and time-saving, have catered to people's demand for efficient and convenient diets in the modern fast-paced life, showing a rapid development trend in recent years. According to the People's Network Report on the Development of the Pre-made Dishes Industry, the scale of China's pre-made dishes market has been expanding rapidly at a rate of more than 20% per year in recent years, and it is expected that the market scale will exceed one trillion yuan by 2026. Up to now, there are more than 68,000 existing and active pre-made dish-related enterprises in China, among which nearly 11,000 new enterprises have been registered as of the current period in 2024. In terms of regional distribution, the number of pre-made dish-related enterprises in Shandong, Henan, Jiangsu and other regions ranks among the top.

In addition, with the acceleration of urbanization, the miniaturization of family structures and changes in consumption habits, pre-made dishes, as a convenient food solution, are penetrating from the B-end catering supply chain to C-end household consumption. In 2023, the scale of China's pre-made dishes market reached 516.5 billion yuan, a year-on-year increase of 23.1%, and it is expected to exceed one trillion yuan by 2026. As a key industry connecting agricultural production, food processing and catering consumption, pre-made dishes not only carry the economic value of improving catering efficiency and releasing consumption potential, but also shoulder the strategic significance of promoting the standardization of Chinese cuisine and facilitating cultural export. This paper analyzes the development status at home and abroad, studies and judges the core driving factors and challenges of China's pre-made dishes industry, so as to provide theoretical reference for the high-quality development of the industry.

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1.2. Research Objectives and Methods

It mainly focuses on the phased characteristics of China's prefabricated food industry. By combining literature analysis, data comparison and case studies, it sorts out the development context of the industry, focuses on exploring the impact of market structure, technological innovation and policy environment on the industry, and finally puts forward a development path suitable for China's national conditions.

2. Current Development Status of the Prepared Dishes Industry

2.1. Lessons from the Development Experience of Pre-made Dishes Abroad

2.1.1. United States: A Mature Market Driven by Industrialization

American prepared meals originated in the 1920s. Relying on cold chain logistics and the chain operation of catering, the market penetration rate reached 60% in 2021, with a sales scale exceeding 50 billion US dollars. The industry is centered on the B-end. Leading enterprises such as Sysco provide standardized solutions for catering enterprises through full-category supply chain integration. At the same time, C-end products focus on ready-to-heat and ready-to-eat categories to meet the convenient needs of families.

The development history of American prepared meals has gone through three main stages: the first is the embryonic stage, from the 1920s to the 1950s. During this period, the development of the catering industry brought about by the improvement of industrialization and the increase in population density, as well as the improvement of quick-freezing technology, stimulated the growth of frozen food sales, with the compound growth rate of industry sales reaching more than 35%. The second is the growth stage, roughly from 1950 to 1970, which was a period of rapid growth for American prepared meals. The increasing demand for catering, coupled with the establishment of major American fast food giants [such as KFC, McDonald's, Pizza Hut, Chick-fil-A, Burger King], forced the standardization of ingredients, bringing opportunities for the development of semi-prepared dishes, with a compound growth rate of sales exceeding 10%. The third is the mature stage, starting from 1970 to 2012. At that time, Sysco's sales scale exceeded 40 billion US dollars, becoming the real leader in American prepared meals. It took about 90 years for American prepared meals to develop from the embryonic stage to the emergence of oligopoly.[1]

2.1.2. Japan: A Model of Refinement and Localization

Japanese prepared dishes entered a golden period in the 1980s with the rise of convenience stores. By 2021, their penetration rate reached 65%, forming an omni-channel network of "central kitchen + convenience store + family". The products are highly segmented, covering local cuisines such as sushi and tempura. Through CAS freezing technology (ice crystal control technology), the original flavor of ingredients is preserved, balancing convenience and taste experience.

Regarding the development of the Japanese market, Japan is a major producer and consumer of prepared dishes. Among them, frozen food accounts for the largest proportion and is the most representative. Currently, Japan has become the world's third-largest consumer market for frozen food and the largest in Asia, with an annual consumption exceeding 3 million tons. The variety of frozen food has long exceeded 3,000, among which cooked and prepared foods are as many as over 2,400. Japanese prepared dish enterprises mostly enter the market with their own partial advantages, advocating vertical extension of the industrial chain and creating cost-effective products.

Firstly, during the industry introduction period (1958 - 1974), driven by technological progress and policy guidance, prepared dishes were promoted. The CAGR (Compound Annual Growth Rate) of the output value of the prepared dish industry from 1958 to 1974 was as high as 45.9%.

In the 1960s and mid-1970s, with Japan's rapid economic growth, the Tokyo Olympics and Osaka Expo accelerated the market promotion of prepared dishes.

However, Japan's local food resources are relatively scarce. To meet market demand, the Japanese government issued the "Refrigerated Chain Advisory" in 1965, supporting the research and development and manufacturing of refrigeration technology and refrigeration equipment, and strongly supporting frozen food enterprises and cold chain construction. Subsequently, the penetration rate of prepared dishes in hotels, restaurants and canteens increased rapidly. In 1965, the popularity rate of refrigerators exceeded 50%, and residents improved their dietary standards through frozen food.

Next, it entered the industry growth period (1975 - 1997). The chain operation of catering combined with the externalization of dining scenarios drove the continuous growth of the industry. The CAGR of the output value of the prepared food industry from 1975 to 1997 was 9.7%. After the 1970s, chain catering brands such as KFC and McDonald's entered the Japanese market. From 1986 to 1997, the catering chain rate increased from 6.5% to 11.5%. Rental and labor costs also increased significantly. Driven by standardization and cost reduction and efficiency improvement, the demand for prepared food from the B - end continued to grow.

After the mid - 1970s, Japan's economy entered a period of stable growth, and consumers dined out more frequently. The dining - out rate increased from 27.8% in 1975 to 39.7% in 1997. The popularity rate of refrigerators in Japan reached 96% in 1975, and the popularity rate of microwave ovens in Japan reached 70% in 1990, laying a solid foundation for the C - end prepared food market.[2]

Finally, in the industry mature period (1998 - 2022), Japan's economic growth stagnated, leading the industry to enter the mature period. The CAGR of the output value of the prepared food industry from 1998 to 2022 was only 1.1%. In the 1990s, after the collapse of Japan's economic bubble, the demand for dining out among Japanese residents decreased, and the growth of the catering industry stagnated, resulting in the stagnation of the growth in demand for prepared food from the B - end. However, at the same time, the overall growth rate of the C - end of prepared food increased instead. Among them, the CAGR of some segmented products applying new technologies exceeded 10%. On the one hand, this is because consumers' demand for catering convenience has not changed; on the other hand, it is because Japanese family units tend to be smaller and aging.

2.1.3. The Development Experience of the Ready-to-Eat Meal Industry in Foreign Countries

(1) Based on factor endowments, comparative advantages are highlighted.

Resource allocation mainly relies on the market. In an effective market environment, the allocation of resources in the ready meal industry can be optimized through prices and supply and demand relationships, thereby achieving efficient resource utilization. Each region has its unique resource endowments and factor costs, which determine its comparative advantages in specific industries.

Observing the ready meal enterprises in the United States and Japan, basing on factor endowments is an important aspect for these enterprises to integrate the primary, secondary, and tertiary industries and form their own comparative advantages. The development of the ready meal industry in the United States and Japan each has its own characteristics. Ready meal enterprises in both countries engage in differentiated competition in their respective markets, giving rise to a number of leading enterprises in meat and staple food categories. In the United States, most ready meal enterprises are comprehensive food companies with strong channel and brand strength. These comprehensive food companies, relying on their strong brand effects and rich product lines, hold an advantage in market competition. They not only have stable sales channels but also can rapidly expand their market share through mergers and acquisitions and other means.

In addition, these enterprises also focus on product innovation to meet the differentiated tastes and demands of consumers. Japanese ready meal enterprises usually leverage their unique advantages, concentrating on the refined management of products and distribution channels, and then gradually extend to the upstream and downstream of the industrial chain. For instance, Kobe Shoji mainly provides high-quality and cost-effective products, selling ready meals through a chain franchise model, and extending its supply chain to all over the world. By taking advantage of the purchasing power of large-scale procurement, it acquires high-quality ingredients at low prices. This diversified product strategy enables the ready meal industry to be competitive in markets such as the United States and Japan and attract a broader consumer base.

(2) Leveraging the spirit of entrepreneurship to stimulate enterprise innovation.

Factor endowments are indeed important, but if industries are developed solely based on factor endowments, some enterprises will not strive for progress but instead fail to utilize these advantages to develop the industry. Because resources are limited, some enterprises, although having advantages, are reluctant to explore new products and technologies, which will inevitably affect the long-term development of the industry and thus lose their development advantages. Moreover, some regions may have inherent deficiencies and thus have difficulty obtaining comparative advantages in the early stage of industry development.

Therefore, leveraging the "entrepreneurial spirit" is the key to the effective operation of the market. Entrepreneurs achieve self-value and social value through research and innovation, and gain greater benefits. This is the essence of the entrepreneurial spirit. In the field of pre-cooked food, the entrepreneurial spirit of foreign enterprises is worthy of our reference. Both the United States and Japan require enterprises to consider how to make the taste and texture of pre-cooked food after reprocessing as close as possible to the level of freshly prepared food through technology. This includes applying advanced food processing technologies, cold chain logistics systems, and unique seasoning formulas, etc., to ensure the stable quality and delicious taste of pre-cooked food.

At the same time, enterprises are required to have the ability to detect market demands and be able to promptly capture changes in consumer demand trends. This requires enterprises to fully utilize technological means such as big data and artificial intelligence to conduct in-depth analysis of consumers' purchasing behaviors, taste preferences, etc., to accurately grasp market dynamics. When analyzing the growth and expansion of Dayingling Company and the continuous popularity of its products, technological innovation and product development were recognized as the most crucial factors. Japanese pre-cooked food enterprises widely apply technological means to improve production efficiency and control quality.

In addition, Japanese pre-cooked food enterprises will actively research and develop new cooking methods, such as steam cooking and vacuum sealing, to maintain the nutritional components and taste of ingredients. At the same time, pre-cooked food enterprises constantly introduce new products, conduct product research and development based on market demand, consumer feedback, and current trends, and promptly adjust product combinations.

2.2. Current Development Status of China's Prepared Dishes Industry

2.2.1. What is Pre-prepared Food?

On March 21, 2024, the China National Market Supervision Administration and six other departments jointly issued the "Notice on Strengthening the Supervision of Pre-packaged Food Safety and Promoting the High-Quality Development of the Industry" (referred to as the "Notice"), for the first time at the national level, clearly defining the definition and scope of pre-

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packaged food. The "Notice" defines pre-packaged food as: Pre-packaged food, also known as pre-prepared dishes, is made from one or more edible agricultural products and their products, using or not using seasonings and other auxiliary materials, without adding preservatives, through industrialized pre-processing (such as stirring, pickling, rolling, shaping, frying, roasting, baking, boiling, steaming, etc.) to be prepared, with or without a seasoning package, meeting the storage, transportation and sales conditions indicated on the product label, and can be eaten after heating or cooking.

2.2.2. Development History: From Inception to Explosive Growth

The embryonic stage was in the 1990s when KFC and McDonald's introduced the clean vegetable processing model, and enterprises such as Sanquan and Synear cultivated consumers' awareness through frozen dumplings. Then came the growth stage from 2010 to 2020. The increase in the catering chain rate (reaching 15% in 2020) drove B-end demand, and the epidemic catalyzed China's C-end market, with more than 60,000 pre-made dish-related enterprises in 2020. Finally, the adjustment period has been from 2023 to the present. The "pre-made dishes entering campuses" controversy and food safety incidents have triggered an industry trust crisis, policy supervision has become stricter, and the industry has entered a stage of standardized development.

2.2.3. Market Size and Regional Distribution

In 2023, the scale of China's pre-made food market reached 516.5 billion yuan, with a compound annual growth rate of over 20% in the past five years. Enterprises in major agricultural provinces such as Shandong, Henan, and Guangdong accounted for more than 40%, forming an industrial pattern of "coastal agglomeration and regional characteristics". The B-end accounts for 80%, mainly serving chain catering and group meals; the C-end accounts for 20%, with young white-collar workers and the elderly as the core, with an annual growth rate of 30% (CCID Consulting).

2.2.4. The Main Issues Currently Facing the Country

(1) Our country's pre-prepared food is still in its early stage of development, and it mainly has the following five problems:

Firstly, there is the issue of food safety. This is the core problem, directly related to the health of consumers and the sustainable development of the industry. During the production, processing, storage and transportation of pre-prepared food, any negligence in any step may lead to food safety hazards. Inadequate quality control of raw materials may result in the residue of harmful substances, unqualified hygiene conditions during the processing process may introduce microorganisms, and improper storage and transportation conditions may accelerate the spoilage of food. These problems not only harm the interests of consumers but also may trigger public health incidents, causing a significant impact on the reputation of the enterprise. To ensure food safety, the pre-prepared food industry needs to establish a strict quality management system, with clear standards and regulatory measures for every step from raw material procurement to the release of finished products. At the same time, enterprises should strengthen employee training to enhance their awareness of food safety and ensure the standardization of the production process. Enterprises should establish a safety traceability system for pre-prepared food, and the government and industry organizations should also play a role, formulate and implement relevant regulations, strengthen the supervision of the pre-prepared food industry, and ensure that the food safety standards are effectively implemented.

The second is that the scale of enterprises is uneven, and it is mainly small and medium-sized, and the brand concentration of prefabricated dishes is low. Market division is relatively extensive and competitive.The track is crowded, and companies are forced to fight price wars. Mixed production enterprises increase the risk of food safety, using inferior ingredients and

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raw materials.Food safety issues such as non-standard production, substandard hygiene, and unsafe packaging materials occur from time to time.

The third point is that the definition and classification of the industry are vague, and the standardization system is not perfect. According to statistics, 54.9% of prefabricated dishes in China are frozen and prepared.Product industry standards, 33.4% of products implement manufacturer's enterprise standards, 11.7% of products implement other standards. Different types of prefabricated dishes correspond to edible methods, logistics distribution, storage and packaging methods vary, and there is a lack of uniform national standards and market norms.It is still impossible to uniformly define the concept, resulting in inadequate connection between upstream and downstream streets, difficult safety control, and difficult quality assurance.

The fourth point is the intensifying price competition and the narrowing of profit margins. The price competition in the pre-prepared food industry is becoming increasingly fierce, especially with the promotion of e-commerce platforms. Price wars have become the norm. This not only reduces the profit margins of enterprises but also may lead to a decline in product quality. Long-term price competition may harm the healthy development of the entire industry and affect the innovation capabilities and sustainable development of enterprises. To cope with price competition, pre-prepared food enterprises need to optimize their cost structure and reduce costs through methods such as large-scale production and supply chain management. At the same time, enterprises should focus on brand building and market positioning, and achieve differentiated competition by providing high-quality products and services. Additionally, enterprises can enhance the value perception of their products by adding product value, such as providing customized services and improving the consumer experience. Small restaurants and takeout stores do not have sufficient resources to build their own pre-prepared food supply chains and mainly rely on the purchasing model. This has given rise to a group of ToB enterprises specializing in the research, production, and bulk sales of pre-prepared foods.

The final point is the low level of independent innovation, industrialization development, and the need to improve technological research and development capabilities. Chinese cuisine has high requirements for the freshness of ingredients and cooking skills. Compared with Western cuisine, Chinese cuisine has a rich variety of styles and diverse cooking techniques, thus facing great challenges in standardized production. Various pre-made food materials have different shapes and sizes, making standardized processing difficult. The market lacks the research, development, and sales of corresponding supporting equipment, and the imported equipment cannot adapt to the complex processing techniques of China's pre-made dishes, resulting in the overall processing technology and equipment being incompatible with the industrialized production of a wide variety of pre-made dishes.

(2) China is fully equipped with the conditions for developing pre-made foods:

Firstly, the cold chain logistics infrastructure has been basically improved. With the in-depth advancement of China's backbone cold chain logistics bases, the cold chain logistics industry in China is in a stage of rapid development, supporting the development of the ready-to-cook and ready-to-serve segments of the pre-prepared food market, which have high requirements for the freshness of ingredients. In 2020, the scale of China's cold chain logistics market reached 372.9 billion yuan, with a compound annual growth rate of 15.7% over five years. The development of cold chain logistics technology has reduced the loss rate of fresh products, ensured the freshness of pre-prepared food, and expanded the industry's supply chain and sales radius. The trend of consumers' demands for food safety, taste, and health has forced enterprises to make more breakthroughs and upgrades in the technologies and equipment needed in each link, such as processing and heating, packaging and storage, and logistics and transportation. Driven by professional cold chain logistics, low-temperature preservation technology, vehicle design and manufacturing technology, and information-based logistics distribution technology have further developed, significantly reducing cold chain distribution

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costs and transportation losses, and effectively improving distribution efficiency, laying a solid foundation for the rapid development of the pre-prepared food industry.

Secondly, new retail has enabled diversified and convenient consumption for the C-end market. Channels such as live-streaming e-commerce and O2O have helped expand the sales and reach marketing of pre-prepared dishes in the C-end market. In terms of sales expansion, the emerging retail, community stores, and community group buying business models in recent years can not only solve the convenience issues of supermarkets and agricultural markets, but also address the "last mile" problem of e-commerce, while also providing tasting opportunities, thereby boosting sales in the C-end market. In terms of marketing reach, the rise of new marketing channels such as content e-commerce and live-streaming e-commerce has accelerated the popularization of pre-prepared dishes.[3]

Finally, the entire industry chain builds core barriers. The pre-prepared dish supply chain is a complete set of processes, ranging from raw materials at the upstream, processing factories, cold storage, cold chain distribution, wholesalers, retailers, catering, to the end-user stage. The entire industry chain builds core barriers.

3. Countermeasures and Suggestions for Promoting the High-quality Development of the Pre-prepared Food Industry

3.1. Carried Out from a Market Perspective

3.1.1. Improve Regulations and Standards

Taking the release of the "Six Departments' Notice" as an opportunity, we should promptly formulate and promulgate national standards for the safety of pre-prepared foods. Gradually incorporate pre-prepared foods into the "Food Production License Classification Catalogue", clearly defining the entry conditions for pre-prepared food production. Adjust and improve the contents related to pre-prepared foods in local and industry standards, further unifying the scope and definition of pre-prepared foods. In response to the potential food safety hazards of pre-prepared foods, specify the specific risk control measures that government regulatory authorities, production enterprises, logistics distribution, and end-users should take during the process.

3.1.2. Improve the Level of Processing and Manufacturing

In response to market trends and consumers' concerns, we will vigorously promote the improvement of the quality of pre-prepared foods and the development of new products in the livestock industry, aiming to enhance product quality. We will improve the cooking process, reasonably apply flavoring and seasoning techniques, and better replicate the processing conditions of freshly cooked dishes. We will develop more authentic products. We will explore local culinary traditions and develop local specialty foods and festival-specific foods. To meet the characteristics of rapid information dissemination in the mobile internet era, we will continuously track consumption hotspots and launch hit new products. We will develop dishes with specific nutritional structure for fitness enthusiasts, those on a weight loss diet, and those controlling sugar intake.[4]

3.1.3. Both Upstream and Downstream Industries are Working Together

Pre-packaged foods link all the industrial chains. Only when the upstream and downstream industries as well as the supporting industries develop in a coordinated manner can the development potential be fully unleashed. Improve the quality of agricultural products, enhance the industrialization level of agricultural products, and ensure the product quality of pre-packaged foods from the source. Accelerate the construction of cold chain facilities and improve the cold chain transportation network. Promote the application of compound seasonings in pre-packaged foods. Innovate and improve the special equipment for food production to increase production efficiency and reduce production costs. Promote new packaging technologies and new packaging techniques for food to improve the insulation, environmental protection and food safety performance of packaging.

3.1.4. Product Diversity and Innovation

Product diversity and innovation are the key to the sustainable development of the pre-prepared food industry. Enterprises should respond actively to market demands and vigorously develop products that meet the tastes and health needs of different consumers, including healthy foods such as low-fat, low-sugar, and high-protein products, as well as pre-prepared foods that meet specific dietary requirements (such as vegetarian, halal, organic, etc.). At the same time, enterprises can leverage modern food technologies, such as 3D food printing and intelligent cooking equipment, to innovate the form and taste of their products. Additionally, enterprises can collaborate with nutritionists and chefs to develop pre-prepared foods with regional characteristics and cultural flavors to enrich their product line. To stimulate innovation vitality, the government and industry organizations can establish innovation funds to support enterprises in conducting product research and development and technological upgrades.

3.2. Carried Out from the Perspective of the Chinese Government

3.2.1. The Government Should Carry Out Self-reform and Make Timely and Dynamic Adjustments

Ensuring the effectiveness of the governance system is the prerequisite for the government to take active actions. Dynamic adjustments and self-reform of development policies should be made at different stages of development. The development of the pre-prepared food industry is constantly changing along with the changes in the economy and society. This requires the government not to be complacent and to accurately grasp the industry's development trends. It should constantly adjust its role and organizational structure according to the industry's factor endowments, development characteristics and current situation.

While ensuring the healthy development of the market, it is necessary to avoid excessive intervention and be vigilant against policy risks caused by "misplacement" or "misalignment". In the early stage of the development of the pre-prepared food industry, the government's planning function was needed to regulate the malfunctioning market, such as the Japanese government reducing the circulation cost of pre-prepared food by actively building cold storage facilities.

As the pre-prepared food industry continues to upgrade, the Japanese government shifted its role from a planner to a strategic collaborator, providing a more free and broad space for the development of the pre-prepared food market. The combination of technological progress and policy guidance led to the promotion of Japanese pre-prepared food, and the market penetration rate was significantly improved. With the advancement of information technology, the Japanese pre-prepared food industry has made more precise adjustments according to changes in the market and consumption: from the first large-scale expansion in the B sector to the double-click in both B and C sectors and then to the main focus on the C sector and subsequent development. To cope with the continuous changes in the market and consumption, the Japanese pre-prepared food industry actively embraces new technologies to improve production efficiency and product quality.

At the same time, enterprises continuously enrich their product lines and expand their market areas through cross-border cooperation and innovative research and development. The Japanese government dynamically adjusted the top-level design of the pre-prepared food industry's development according to the characteristics of each stage of the industry's development, successfully promoting the internationalization of the Japanese pre-prepared

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food industry, which provides useful references for the development of the Chinese pre-prepared food industry.

3.2.2. The Government Should "Identify Deficiencies and Make up for Them" to Fulfill its Role of Providing Support and Supervision

The pre-prepared food market has many potential risks such as externality, blindness and arbitrariness. It requires the government to promptly assume its responsibilities to prevent market failure. By supporting the construction of hardware and software infrastructure including cold chain logistics, the operational costs of enterprises can be reduced, further stimulating market vitality.

In addition, the government should closely monitor the problems that arise in the pre-prepared food market at different development stages and promptly adopt policies to properly solve them. When the demand for pre-prepared food increases, enterprises invest in building factories, which indicates that an effective market is at work. The government can attract investment, provide financial support for technological research and development, and support industrial development through policies, playing the role of the government. A complete system is an important foundation for the food quality and safety of the pre-prepared food industry. Governments of various countries play a key role in promoting the development of the pre-prepared food industry. Establishing an integrated and diversified regulatory network and including the construction of the system and regulatory system as important guarantees for the food quality and safety of the pre-prepared food industry are necessary.

Furthermore, governments of various countries also establish strict regulations and standards to strictly supervise the quality and safety of pre-prepared food products, ensuring the rights and interests of consumers. For example, the pre-prepared food regulatory network in the United States is jointly constructed by the federal, state and local governments as well as third-party certification institutions. The government has formulated more than 10 laws such as the "Federal Meat Inspection Act" and the "Food Quality Protection Act", and established the HACCP risk assessment and control system.

In addition, the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA) stipulate that pre-prepared food enterprises must follow strict food safety standards. At the same time, the Japanese government has established laws such as the "Food Hygiene Law" and the "Food Safety Basic Law", basically completing the system for food quality and safety of pre-prepared food. Thus, the experiences of the United States and Japan in promoting the development of the pre-prepared food industry are worthy of our country's reference.

3.2.3. The Government Optimizes Management

With the first appearance of ready-to-eat meals in the 2023 Central Document No. 1 of China, it indicates that the ready-to-eat meals industry has entered a period of rapid development. The industrial system of ready-to-eat meals will gradually be improved and the variety will become more abundant. This requires the government to adopt differentiated and refined management strategies, and implement hierarchical and categorized management of the ready-to-eat meals industry based on market dynamics, avoiding a one-size-fits-all management model. The government needs to play its "service" role, develop the ready-to-eat meals industry in accordance with the comparative advantages determined by the factor endowments and structures of each region, and help enterprises reduce the pressure of investment and financing through adjusting fiscal and tax policies, thereby promoting the standardized and healthy development of the industry and driving it towards higher quality and greater safety.

The government can intervene in the market, but it should also adopt corresponding industrial adjustment policies based on local resource endowments. The government must follow the laws of market development in the process of the ready-to-eat meals industry's development

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and should not over-intervene in the industry's own development. After determining the key development industries, the government should actively fulfill its duties, invest necessary fiscal funds to optimize the industrial development environment and policy system, and promote high-quality industrial development. For instance, it should accelerate the formulation of industry regulations, improve the standardization level and build a regulatory system for ready-to-eat meals, standardize the behavior of enterprises throughout the entire chain from upstream to downstream, clarify raw material standards, processing technology procedures and related production and operation hygiene norms, etc., thereby promoting the healthy development of the ready-to-eat meals industry. In addition, government regulatory departments at all levels should continue to exert efforts, conduct all-round and full-chain supervision and inspection of various ready-to-eat meals sold by merchants. Once food safety issues are discovered, immediate actions should be taken to ensure that violators bear corresponding economic, credibility and legal consequences, thereby serving as a warning.

The government should set market access rules and industry production standards, clarify the classification standards, production norms and inspection and testing standards of ready-to-eat meals products, further raise the threshold and quality standards of the ready-to-eat meals industry, and promote its development towards scale, intensification and branding. The government not only needs to correctly exercise decision-making power, executive power and supervisory power, but also formulate an overall policy for the development of the ready-to-eat meals industry. Both soft systems and hard infrastructure need to be grasped, thereby creating a favorable development atmosphere for the ready-to-eat meals industry market.

3.3. Drawing Inspiration from the Development Experience of Ready-to-Eat Meals Abroad

The development of China's pre-prepared food industry is similar to that of the early pre-prepared food industries in the United States and Japan. Both were driven by government policies, with enterprises actively conducting industrial layout and product research and development, gradually improving the industrial chain and gradually moving towards standardization and industrialization. Currently, more and more catering enterprises in China are beginning to use cold chain logistics for product distribution, which will greatly increase industry concentration. In the future, as the enterprises' brand promotion capabilities, sales channels, and consumers' acceptance of cold chain food continue to mature, the industry size will continue to maintain rapid growth. By summarizing the development experience of foreign pre-prepared food industries, it can be known that the United States and Japan promote the development of pre-prepared food industries based on different national conditions and resource endowments. China should also fully combine its own national conditions and local characteristic advantages, draw on the roles of the government and the market in developing the pre-prepared food industry, so as to promote the sustainable development of the domestic pre-prepared food industry.

In the pre-prepared food industry, the differences in factor endowments indicate that due to the different market conditions in various regions, the allocation of production factors will also be different. To achieve maximum benefits, each region should first utilize its comparative advantage resources and then acquire scarce production factors. Therefore, domestic regions should also develop the pre-prepared food industry based on local resource endowments. For example, Shandong, as a major agricultural province, has abundant agricultural resources and a complete logistics network, showing significant comparative advantages in the supply of raw materials for pre-prepared food, processing and manufacturing, technological innovation, and cold chain distribution. Before deciding to vigorously promote the development of the pre-prepared food industry in each region, they should conduct in-depth research on the current situation of the industrial entities and provide corresponding support when the industrial entities have a certain development foundation. In addition, the market can be segmented based on the local resource endowments, and dishes can be developed and innovated according to different regions, specialties, seasons, and periods, by continuously improving the taste, texture, and freshness of the dishes to meet consumers' increasingly diverse demands. An effective market can promote the research and development of local characteristic pre-prepared food products based on factor endowments, converting the comparative advantages of each region's resources into competitive advantages in the pre-prepared food industry.

Japanese pre-prepared food is relatively simple but has more fully explored product categories and a significant degree of differentiation. In addition, Japan has some very popular star products, which constitute the core competitiveness of the pre-prepared food industry. Therefore, China can draw on the development model of Japanese pre-prepared food to further enhance the product research and development capabilities of enterprises. Producers are the main body of the "effective market" functioning, and the domestic pre-prepared food industry is at a key turning point of industrial transformation and upgrading. Therefore, the decision-making behavior of producers is crucial for the sustainable development of the pre-prepared food industry. Most pre-prepared food enterprises in China are still small-scale workshops lacking scale effects, with limited production capacity, which restricts the expansion and development space of enterprises and their competitiveness. Therefore, it is recommended that small-scale enterprises should actively participate and integrate into the industrial ecosystem in the future, while large enterprises should play a leading and exemplary role. At the same time, all enterprises should make investment decisions based on in-depth research on market demand to prevent blind and disorderly competition. In addition, research should be strengthened in areas such as flavor preservation, freshness restoration, and intelligentization of robots in the field of science and technology, and talents for developing pre-prepared food should be cultivated.

4. Conclusion

Prepared food is an emerging sub-market in the food industry and also represents fresh food in the consumer market. The Chinese prepared food industry is moving from a "wild growth" stage to a "value creation" stage. It needs to solve quality problems through technological innovation, activate consumption potential through segmented scenarios, and build an industrial ecosystem through policy coordination. The development of the prepared food industry has a positive promoting effect on improving the level of agricultural industrialization, promoting the economic development of agricultural product origin areas, and driving the upgrading of the consumer market. Prepared food and related industrial enterprises should make full use of favorable conditions, overcome setbacks and problems on the development path, and use higher-quality products to meet market demands, promoting the high-quality development of the industry.

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