

Development Potential Analysis and Countermeasure Research of Prepared Dishes Industry Based on SWOT

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Abstract: With the changing public consumption concept and the accelerated pace of life, as well as the changes in the restaurant industry, prepared dishes have developed rapidly in recent years. In order to promote the healthy and sustainable development of the prepared dishes industry, this paper uses SWOT to analyze the advantages, disadvantages, opportunities and threats of its development. Based on the analysis, some countermeasures are formed: Increase the construction of raw material base, enhance the level of scientific and technological, guarantee food quality and safety, improve the construction of cold chain logistics, develop industry standards, guide standardized production, strengthen brand promotion, extend the industrial chain, enhance the value chain. Establishing a whole industry chain digital regulatory system including materials, processing, logistics and distribution is necessary to effectively reduce potential safety risks and improve core competitiveness of prepared dishes enterprises.

Keywords: Prepared Dishes Industry, SWOT, Internal Conditions, External Environment.

1 INTRODUCTION

With the improvement of residents' income, the change of consumption concept and the acceleration of the pace of life, especially in recent years by the impact of the COVID-19, the 'prepared dishes' that can quickly prepare a meal are gaining popularity among people who live and work at home. The market demand is surging.

Prepared dishes refer to dishes prepared with one or more edible agricultural products and their products as raw materials, with or without seasoning and other ingredients, processed by relevant processes, and in certain temperature conditions for storage, transportation and sales, ready to eat or non-ready-to-eat prepackaged dishes. According to different consumption forms, it can be divided into instant food, instant heat, instant cooking and instant preparing [9].
①Instant food: can be eaten directly after opening; ②Instant heat: Food that can be eaten only by heating; ③Instant cooking: The raw food ingredients and necessary condiments that are kept in portions refrigerated or at room temperature, can be immediately into the pot; ④instant preparing: Raw material food of semi-finished dishes prepared by preliminary processing such as cleaning and cutting.

At present, there are many brands of prepared dishes in the market, and the market demand is growing. It is expected that prepared dishes market in China will maintain a high growth rate of

about 20% in the future [6]. However, as a new industry, there will be obstacles in the process of development. In order to grasp the current problems faced by the development of the prepared dishes industry and explore countermeasures, this paper uses the SWOT to analyze it. Two internal factors S (Strengths) and W (Weaknesses) and two external factors O (Opportunities) and T (Threats) are considered, and two development strategies (SO and WO strategies) and two development countermeasures (ST and WT countermeasures) are formed through the effective matching of the four factors [1].

2 INTERNAL CONDITIONS FOR THE DEVELOPMENT OF THE PREPARED DISHES INDUSTRY

The prepared dishes industry is promising, but there are also some disadvantages hindering its development. Clarify the advantages, disadvantages of the industry and the direction of development, in order to better exploit the strengths and avoid weaknesses, and promote the healthy development of the prepared dishes industry.

2.1 Analysis of Advantageous Factors

2.1.1 Convenient, Time-Saving and Labour Saving

With the accelerated pace of life, most people do not have enough time and energy to cook. Ready-to-heat or ready-to-cook prepared dishes have become their first choice. The prepared dishes has shortened the cooking time and greatly saved time costs.

2.1.2 Reducing Costs and Standardizing the Production

For restaurant operators, prepared dishes not only achieve high efficiency, save labor, time, and kitchen space, but also realize standardized production [10]. It is beneficial for reducing cost.

2.1.3 Raw Materials Supplied Adequately

Skywatch Big Data Report states (2021) that China is a large agricultural producer, and the production of vegetables, meat and other raw materials required for the upstream production of the prepared dishes industry chain is stable and in sufficient supply. The forecast value of raw material output of prepared dishes from 2016 to 2021 is shown in Table 1.

Table1: Forecast output value of the upstream (raw materials) of the prepared dishes industry chain.

Year	Grain (10,000 tons)	Vegetable planting area (10,000hectares)	Vegetable production (100 million tons)	Meat production (10,000 tons)
2016	66044	1955.31	6.74	8623.33
2017	66161	1988.11	6.92	8654.43
2018	65789	2043.89	7.03	8624.63
2019	66384	2086.27	7.21	7758.78
2020	66949	2130.56	7.49	7639
2021	---	2174.43	7.82	7821.84

Data Sources: 2021-2027 China Grain Industry Production and Sales Analysis and Future Prospects Report.

2.2 Analysis of Disadvantageous Factors

2.2.1 The Degree of Deliciousness and Nutrition to be Enhanced

Prepared dishes' taste and nutrition currently on the market are to be enhanced. Firstly, the traditional high-temperature sterilization are used to ensure product safety, which will lead to nutrient loss and poor taste; Secondly, the prepared dishes mostly use meat as raw materials, low salt, low fat and high dietary fiber products are rare, which will result in unbalanced nutrition.

2.2.2 The Level of Technology and Equipment to be Improved

As a new industry, prepared dishes industry has weak foundation, lacking support of technology and equipment. New packaging materials and technologies suitable for prepared dishes need to be researched and developed [4].

2.2.3 Low Product Taste Reduction

Most of the products have a large difference in taste from the ready-made dishes. It is difficult to keep the ready-made taste for prepared dishes, which results in low consumer repurchase rate and poor market response [8].

2.2.4 Lack of Raw Material Quality Control and Traceability System

Prepared dishes are prone to the problem of judging the quality of ingredients difficultly. Advanced technology and detection means need to be used to identify the material true or false. Therefore, it is necessary to establish a full quality control system as well as a traceability system [4].

3 EXTERNAL ENVIRONMENT OF THE DEVELOPMENT OF THE PREPARED DISHES INDUSTRY

3.1 Analysis of Opportunity Factors

3.1.1 Supported by National Policy Strongly

In recent years, in order to promote the development of the prepared dishes industry, China has promulgated a number of policies related to supporting, encouraging and regulating the prepared dishes industry, such as the Guidance on Accelerating the Cultivation and Development of the Whole Agricultural Industry Chain, issued by the Ministry of Agriculture and Rural. It is pointed out that: innovative development of direct supply from origin of materials, prepared dishes industry, restaurant and take-away, cold chain distribution are need to be encouraged. Also the development and promotion of "raw material base + central kitchen + logistics and distribution", "central kitchen + restaurant" and other models are encouraged [3].

3.1.2 Gradually Increasing Market Demand

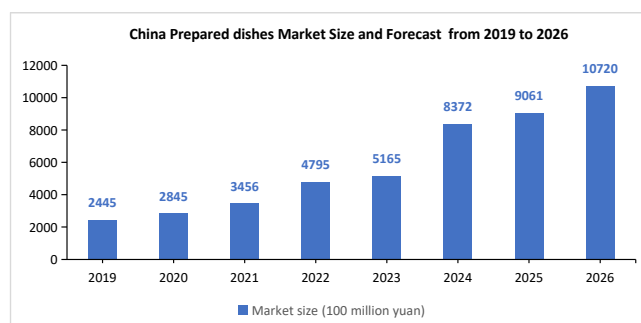


Figure 1: Prepared dishes Market Size and Forecast from 2019 to 2026.

Data Sources: China Prepared Dishes Industry Development Trend Research Report 2022 released by iiMedia Research.

Influenced by the "lazy economy" and the development of the "home-based economy" due to the epidemic, the proportion of prepared dishes in family meals(C-side) are increasing. During the major e-commerce festivals and the Chinese New Year, the prepared dishes products' sales increased with multiples of turnover growth. With the rise of restaurant and take-away industry, the penetration of prepared dishes in restaurants(B-side) has accelerated, and the demand has gradually developed in the direction of "simplification" of dishes, "standardization" of restaurant production, and "acceleration" of take-away orders [7]. The industry expansion is expected to accelerate under the resonance of B+C side demand. According to a survey, the size of China's prepared dishes industry was 345.9 billion yuan in 2021, up 19.8% year-on-year, and is expected to reach 1072 billion in 2026 (Figure 1).

3.1.3 Contentiously Developing Cold Chain Logistics

Logistics has become more competitive after rapid development, fresh logistics has become a new growth point, and the cost of fresh logistics will be further reduced in the future, providing a more favorable environment for the Internet sales of prepared dishes [6].

3.2 Analysis of Threat Factors

3.2.1 Enterprises Operational Risks

Consumers' demand for abundant prepared dishes products makes it necessary for enterprises to establish multiple production lines, and each line requires multiple links such as new product development, production, transportation and sales, each of which requires the funding. Once the capital chain is broken, the operation of enterprises will be seriously impacted.

3.2.2 Serious Product Homogenization, Fierce Market Competition, Low Profits

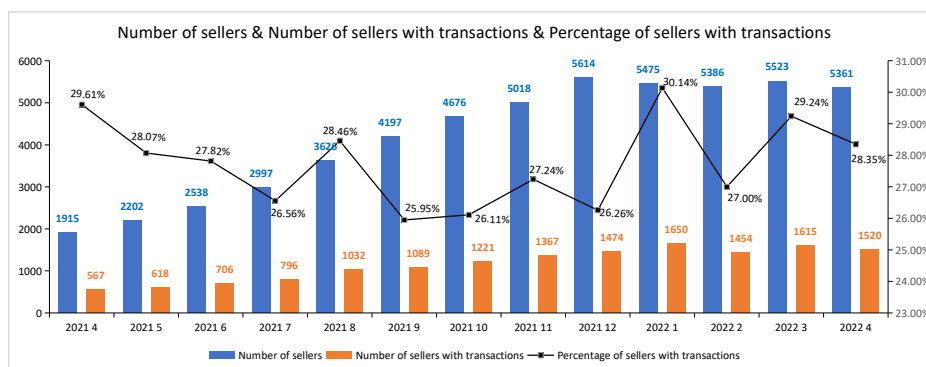


Figure 2: Number of sellers & Number of sellers with transactions & Percentage of sellers with transactions.

Data Sources: Prepared dishes industry research report released by the China Federation of Foodstuffs Supply Chain Branch.

The prepared dishes industry is in the early stage of development at present, the permission requirement of manufacturing prepared dishes is less. There are many small and medium-sized enterprises producing similar products. From April 2021 to April 2022, the number of enterprises increases almost threefold (Figure 2). Homogenization is serious and lacking of innovation is prominent. Consumers have many choices when they purchase the same product in the market. So the price is considered as the main factor by the consumers which leads to vicious competition and the overall low interest rate of the industry.

3.2.3 Lack of Relevant Standards and Supervision, Food Safety is Difficult to Guarantee

On the one hand, the nutrients in the prepared dishes are susceptible to microbial infection, which causes spoilage and loss of edible quality. On the other hand, the packaging materials induce component migration in the oil and salt environment of the dishes, which will cause food safety hazards. Corresponding standards and regulations are necessary to be issued for the industry.

3.2.4 Development Policies to be Improved

Prepared dishes industry involves agriculture, processing industry, distribution services and other industries, the development for prepared dishes industry is hindered by the policies corresponding to the industrial ban directory, land, environmental protection, etc. Relevant development policies need to be issued and improved.

3.3 Digital Analysis of the Whole Industrial Chain of Prepared Dishes Enterprises

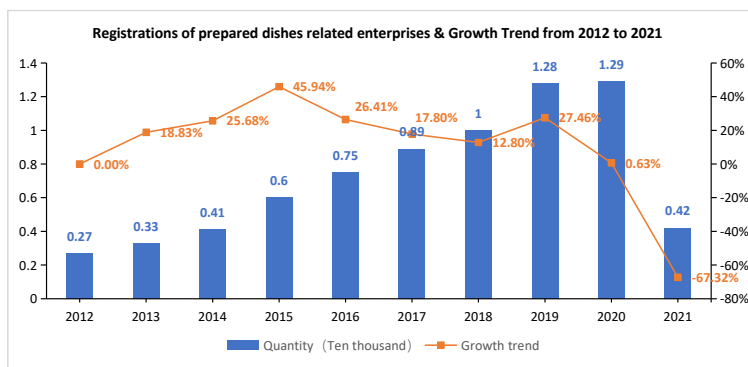


Figure 3: Registrations of prepared dishes related enterprises & Growth Trend from 2012 to 2021. Data Sources: Big data report "How to make New Year's Eve in Place full of flavor" by Sky Eye Search.

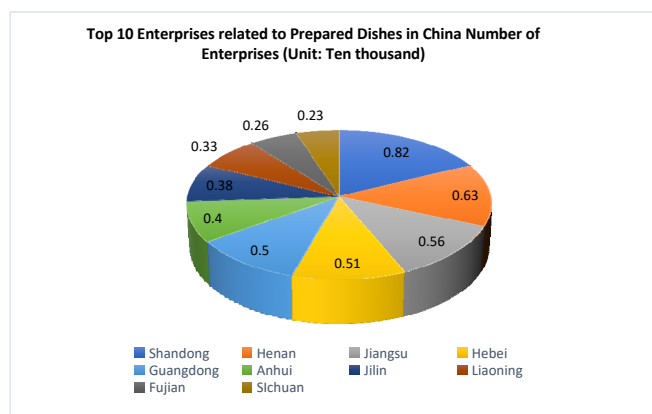


Figure 4: Top 10 enterprises related to prepared dishes in China number of enterprises. Data Sources: China Prepared Dishes Industry Development Trend Research Report 2022 released by iiMedia Research.

In the past 10 years, the number of registered enterprises related to prepared dishes has been reached 69,000 by 2022. The industry is developing rapidly (Figure 3). From the analysis of regional distribution, the number of relevant enterprises in Shandong ranks the first of top ten provinces, with a total of 8200 accounting for 17.75%. The competition is fierce (Figure 4). The period from the purchase materials, processing, transportation to sales of prepared dishes is relatively long. It involves the processing of freezing and refrigeration, there are lot of risks in food safety. The use of digital tool to establish a whole industry chain regulatory system can effectively reduce potential safety risks.

Through data analysis of each links from farm, slaughterhouse, food processing manufacturer, cold-chain logistics, distribution and sales, differentiated competition advantage in prepared

dishes enterprises will be achieved. Incorporating these scene data, behavioral data, transaction data, and all original data into a big real-time monitoring and management data analysis system, integrating the upstream and downstream information of the industry, building a whole-chain prepared dishes industry digital system including processing, safety supervision and industrial services, a wide and practical digital product matrix of prepared dishes will be formed. The system covers digital integration capability for upstream enterprises (vegetable planting, poultry farming, aquaculture, spice industry, etc.), digital supply chain capability, for midstream enterprises (digital procurement, storage, sorting, logistics, settlement, production, central kitchen, traceability), digital marketing and sales capability for downstream enterprises (CRM marketing, community e-commerce, third-party e-commerce: TikTok, Taobao, Pinduoduo, etc.), digital decision-making capability. Based on the above, business scale and core competitiveness of prepared dishes enterprises will be improved.

4 CONCLUSION AND COUNTERMEASURES

Based on the SWOT analysis, various strategies and countermeasures for the development of the prepared dishes industry are summarized as follows:

4.1 Enhance the Construction of Raw Material Base

In good industrial town, modern agricultural industrial park, guide the prepared dishes processing enterprises to establish a number of standardized green production base. Explore “farmers + production base + catering enterprises” and “farmers + production base + electric business” and other modes to realize the industrial integration development and help farmers to increase income.

4.2 Enhance the Level of Technological Support

Scientific research institutes and promotion institutions were organized to conduct research on the key processing and bottleneck constraints of prepared dishes industry, key technical research was carried out, and a number of new practical technologies such as green packaging, rapid pre-cooling, energy-saving drying, which integrated automatic and precise control, were developed to provide technical support for the production of prepared dishes.

4.3 Guarantee Food Quality and Safety

Government support prepared dishes processing enterprises to participate in quality management and food safety control system certification, and enhance the quality control ability. Encourage prepared dishes enterprises to build food safety management system which can realize entire traceability, and promote the systematization, institutionalization and standardization of prepared dishes processing.

4.4 Improve Cold Chain Logistics

In the vegetable dominant production areas, vegetable industry clusters, key vegetable production base, support building cold storage and pre-cooling facilities and to improve the quality of raw material for prepared dishes. Relying on prepared dishes processing enterprises,

actively cultivate cold-chain logistics, packaging, distribution and other professional service entities to improve the commercialization processing capacity such as pre-cooling.

4.5 Develop Industry Standards and Guide Standardized Production

Government encourage market supervision departments and industry associations to co-establish standard, guide standardized production to develop prepared dishes healthily and promote standardized production vigorously. Meanwhile, encourage and guide enterprises to manufacture abiding by advanced standards which is coordinated with the upstream agricultural standard system to ensure food safety and regulate industrial development.

4.6 Strengthen the Promotion of the Brand

Around scientific and technological innovation, waste reduction, green development, The typical enterprise and product brand were selected and promoted. Fully exploit the typical model and successful practices, conduct a series of publicity reports, and form a good atmosphere for the development of prepared dishes industry.

Table2: prepared dishes industry development strategy SWOT analysis matrix.

<div style="text-align: center;"> External environmental factors Internal condition factors </div>	Opportunity Factor (O) ①Supported by National policy strongly. ②Gradually increasing market demand. ③contentiously developing cold chain logistics .	Threat Factors (T) ①Enterprises operational risks. ②Serious product homogenization, fierce market competition, low profits. ③Lack of relevant standards and supervision, food safety is difficult to guarantee. ④Development policies to be improved.
	Advantageous factors (S)	SO Strategy: Proactive Attack (Take advantages and seize the opportunity) ①Extend the industrial chain and guide vegetable processing enterprises to upgrade to prepared dishes manufacturing enterprises. ②Promote the value chain and ensure the high-quality development of the industry.
Disadvantageous factors (W)	WO Countermeasures: Progressive (Seize the opportunity, change the disadvantage)	WT Countermeasures: Defend or Retreat (Overcome disadvantage, avoid threat)

<ul style="list-style-type: none"> ①The degree of deliciousness and nutrition to be enhanced. ②The level of technology and equipment to be improved. ③Low product taste reduction. ④Lack of raw material quality control and traceability system. 	<ul style="list-style-type: none"> ①Improve cold chain logistics. ②Strengthen the promotion of the brand. 	<ul style="list-style-type: none"> ①Enhance the level of technological support. ②Guarantee food quality and safety.
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