

# The Development of Prepared Foods Industry in Fujian Province under the Background of Rural Revitalization

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**Abstract:** In recent years, with the rapid development of prepared foods industry, prepared foods have gradually become a new model of food and beverage consumption. Prepared foods become an important link between consumers' tables and farmers' fields, and play a positive role in promoting the integration of the three industries and the realization of farmers' income. Fujian Province has the advantages of solid industrial foundation, sufficient supply of raw materials, a long history of food culture and strong consumption power, which has laid a solid foundation for the development of prepared foods industry. Fujian has formed a number of leading enterprises in Fujian prepared foods industry, prepared foods' brand effect has initially emerged, but also faced with obstacles to the high-quality development of prepared foods industry related problems. Based on the background of rural revitalization, this study takes the prepared food industry in Fujian province as the research object, discusses the development status of the prepared foods industry, and surveys the consumers to find the existing problems in the development of the prepared foods industry, so as to put forward corresponding countermeasures and suggestions.

**Keywords:** Prepared Foods Industry; Fujian Province; Rural Revitalization

## 1. Introduction

Prepared foods refer to the semi-processed or fully processed food raw materials in advance, which are stored in frozen or vacuum packaging. Consumers only need to heat prepared foods, or cook simply through the combination of ingredients in packages in a short time. China's prepared foods started relatively late, the prepared foods industry emerged in the 1980s and 1990s, and began to grow in the early 21st century. Since 2010, the industry has developed rapidly, and more and more participants have joined it, including enterprises specializing in the production of prepared foods and industry-related enterprises. At present, the industry is growing rapidly, and data show that as of December 29, 2022, there are 75,900 prepared foods-related enterprises in China. In 2022, the scale of China's prepared foods market has reached 419.6 billion yuan, an increase of 21.3% year-on-year. It is expected that in the next 3-5 years, the scale of China's prepared foods market will increase at a high growth rate of about 20% year by year, and is expected to develop into the next trillion-class market<sup>[1]</sup>.

In recent years, Fujian Province has also vigorously promoted the development of the prepared foods industry, striving to take the lead in building a large and strong province of prepared foods. Fujian Province's prepared foods industry has a solid industrial foundation and distinct characteristics. With the development of Fujian cuisine, a large number of prepared foods enterprises have risen along the trend, such as Anjing Food, Haixin Food and Yaming Food. Especially in the field of aquatic prepared dish, many enterprises have transformed into this market. Fujian Province vigorously develops the prepared foods industry, which not only helps to improve the precision and depth of agricultural products processing, but also increases the added value of agricultural products, and plays an important role in promoting agricultural industrialization, agricultural efficiency and farmers' income.

## **2. Development status of Fujian prepared foods industry**

### ***2.1. The scale of prepared foods market is expanding***

With the acceleration of the pace of life and the improvement of living standards, more and more consumers begin to buy prepared foods, and the consumer market scale of prepared foods in Fujian Province is constantly expanding. Meituan data show that in January 2023, the sales volume of prepared foods in Fujian Province rose as a whole, increasing by more than 40% year-on-year. Among them, marinated pork ribs, black pepper bone, Orleans hand-torn roast chicken, preserved pork dishes with plum vegetables, Fotiaoqiang and other sales are in the front. Data from Tmall, Jingdong and other e-commerce platforms show that since last year's "Double 11", sales of prepared foods in Fuzhou have increased by more than 170% over the same period last year. In Fuzhou Yonghui supermarket, sales of prepared foods increased by 457% year-on-year this year, including 234% year-on-year growth on online platforms.

### ***2.2. The scale of the prepared foods industry continues to grow***

With the increasing market demand of prepared foods, the scale of Fujian prepared foods industry is also growing. At present, there are more than 8,000 enterprises related to prepared foods in Fujian Province, and the output value of the whole industrial chain including seafoods, livestock, fruits and vegetables exceeds 100 billion yuan. Tongan District of Xiamen is the largest foods industry base in Fujian province, with the only light industry foods park and 8 industrial parks in Xiamen. There are nearly 10,000 enterprises above and below the scale of the industrial chain, with a complete range of foods production and supporting enterprises, which accelerates the agglomeration and development of the prepared foods industry in Tongan District. At the same time, governments at all levels in Fujian have continuously optimized the development layout of the prepared foods industry. For example, relying on the advantages of Marine economy, Fuzhou focuses on the development of aquatic prepared vegetable industry bases in Mawei, Lianjiang, Fuqing, etc. Fuzhou urban area has also drawn high-quality prepared foods upstream and downstream enterprises, laying a solid foundation for the development of prepared foods industry. In January this year, Fujian province has two lists in the "2023 Top 10 prepared foods Industry Bases", of which Xiamen Tongan ranked NO.2, and Fuzhou Mawei ranked NO.7.

### ***2.3. Policies and standards for the prepared foods industry are improving***

Since 2022, with the increasing popularity of the prepared foods industry, Fujian has continuously increased its support policies for the development of the prepared foods industry. In August 2022, Fuzhou issued the "Eight Measures on Promoting the Development of Prepared Foods Industry in Taijiang District", and built the first prepared foods industrial park in Fuzhou through a series of supportive policies. In November 2022, the Fujian Provincial Department of Commerce and other nine departments issued the notice of "Measures to Accelerate the High-quality Development of Prepared Foods Industry", "Measures" focus on 21 articles, which are expected that by 2025, Fujian Province will build 30 modern agricultural industrial parks, 20 advantageous characteristic industrial clusters, and make the prepared foods industry become a characteristic industry of Fujian Province. Fujian will create a highland for the development of national prepared foods industry. In addition, in order to lead the healthy development of the prepared foods industry, Fujian Province issued a number of standards related to prepared foods. For example, in June 2022, the "Fujian Provincial Food Safety Local Standard of Fotiaoqiang" was officially released, which clearly stipulates the terms and definitions of product classification, quality grade, technical requirements, health requirements for production and processing, inspection rules, labels and signs, packaging, transportation, storage, etc., so that the Fotiaoqiang(a dish with sea food and poultry) industry will develop toward standardization.

### ***2.4. The brand effect of prepared foods is showing***

Fujian Province has cultivated a number of prepared foods leading enterprises, such as Anjing, Shengnong, Haixin Food, Hai Wenming, etc. There are also more prepared foods sold in domestic and foreign markets, such as representative Fujian food "Buddha Jumping Wall", Fujian snack leader "Shaxian mixed noodles" and so on. In the "2022 Top 50 Prepared Food Companies" list, Anjing Food, Shengnong Holdings, Haixin Food and Yaming Food are on the list. Among them, Anjing Food ranked first, and Shengnong Holdings ranked fourth. Anjing Food has the highest market share in the aquatic prepared foods industry, and is the leading enterprise in the aquatic prepared dishes industry. According

to the data in the annual report of Anjing Food, the operating income of Anjing food surimi products is 3.945 billion yuan in 2022. In June 2023, Minwei Industrial won the “2022 Fujian Province Prepared Foods Leading Enterprise”, the company’s products “green pepper grilled yellow croaker”, “green pepper grilled sea bass” and “braised roasted sea bass” won the “2022 Fujian Province Prepared Foods Gold Medal”<sup>[2]</sup>.

### **3. Development model of Fujian prepared foods industry under the background of rural revitalization**

Prepared foods are a bridge between the table and the field, and play a positive role in promoting the intensive processing of agricultural products, the transformation of food manufacturing, and the upgrading of consumption. In addition, the upstream industry of prepared foods affects many industries, such as vegetable planting, animal husbandry, aquaculture, etc., and is closely related to agricultural development. Therefore, the development of the prepared foods industry has a positive impact on promoting the integration of the three major industries and rural revitalization. In the context of rural revitalization, Fujian Province has paid particular attention to the development of the prepared foods industry in recent years, and constantly explores the exhibition mode suitable for the high-quality development of the prepared foods industry, which will promote the process of rural revitalization.

#### ***3.1. Set up an industry association to guide the high-quality development of the prepared foods industry***

In order to strengthen the guidance for the high-quality development of the prepared foods industry, on December 20, 2022, Fujian Prepared Dish Association which is the first provincial prepared foods association in the country, was formally established in Fuzhou, aiming to gather the province’s prepared foods enterprises and help Fujian province and even the country’s prepared foods industry to flourish. On the one hand, the Prepared Foods Association will gather the relevant enterprises of the prepared foods industry chain, promote the integration of resources in all links, and expand the sales and promotion channels of prepared foods; On the other hand, the association actively cooperates with government departments in the work of industrial development guidance, industry standards formulation, and industrial policy implementation, and also coordinates the resources of the whole link of the prepared dish industry. On May 30, 2023, Fujian Supply and Marketing Group Co., Ltd. jointly initiated the establishment of Fujian Prepared Foods Supply Chain Association with a number of prepared foods enterprises in the province. The association has set up a number of professional committees, with the help of prepared-food expert and think tanks, actively carrying out special research on prepared foods, in-depth excavation, summary, sorting out and display of our province’s unique resources in the prepared-food supply chain. The association also formulates policies and provides advice and suggestions for the government and relevant departments.

#### ***3.2. Promote farmers’ income" by the raw material side of prepared foods industry***

The core task of rural revitalization is to increase farmers’ income. Located near mountains and rivers, Fujian Province is rich in forest and Marine resources, which can supply the sufficient raw material. At the same time, Fujian has a relatively complete industrial chain in the food processing industry. So Fujian has a solid foundation in the development of prepared foods industry. The development of the prepared foods industry enables farmers to connect with the consumer market, so that the high-quality agricultural products are made to enter the consumer end. It can also significantly increase the added value of agricultural products, thus increasing farmers’ income. Fujian Haiwenming Marine Science and Technology Development Co., Ltd. is the first enterprise in China with the qualification of export of Fotiaoqi. Relying on the perfect industrial chain system, Haiwenming's prepared food products have a high sales volume in the domestic market and foreign markets, with an annual sales growth rate of nearly 10%. Haiwenming has its own abalone breeding base, export abalone breeding base and modern production research and development base. The company has signed purchase and sales contracts with farmers, which provided jobs in the form of increasing farmers’ income. By 2021, it will drive 1,280 rural households and increase their income by 57.93 million yuan. In 2022, it will drive 1,320 rural households and increase their income by 58.7 million yuan. Fuzhou Mingcheng Food is also a company that engages in aquatic products processing and export. Its production capacity can reach 9,000 tons per year and the company driven more than 1,200 households each year in 2021 and 2022.

### ***3.3. Cultivate industrial base and implement regional differentiation strategy of prepared foods industry***

Industry is the foundation of rural revitalization. The prepared foods connect consumers' tables and farmers' fields, and the development of prepared foods industry can promote the high-quality development of agriculture and the integration of the three industries. In order to seize the "new track" of the development of the prepared foods industry, Fujian Province implemented the regional differentiation policy. First of all, according to the different advantages of each region, Fujian cultivates aquatic products, meat products, vegetables, fruits and vegetables and other prepared vegetable industry bases. In Fuzhou Mawei, Lianjiang, Fuqing and other places it focuses on the cultivation of aquatic products prefabricated vegetable industry bases; In Xiamen Tongan, Nanping Guangze, Quanzhou Jinjiang and other places it focuses on the cultivation of meat products prefabricated vegetable industry bases; In Putian, Zhangzhou, Nanping, Sanming, Longyan and other places it focuses on the cultivation of vegetables, fruits and purified vegetables prefabricated vegetable industry base. Secondly, Fujian strive to build the following key industrial parks: Zhongke Jingwei Prepared Foods Production Research City (Fuzhou Fuqing Yuanhong Investment Zone), Zhengxiang Hai'ai International Agricultural Products Tree Flow Park·Prefabricated Vegetable Industry Development Center, China Prepared Foods Expo Park (Fuzhou Lijia International Business City), China Bamboo Food Industrial Park (Nanping Jianou), etc.

## **4. Survey on consumer' situation of Fujian prepared foods market**

At present, 20% of the sales of prepared foods are for the consumer side and 80% are for the enterprise side, but the market size of the consumer side is still growing. Compared with the customized bulk procurement on the enterprise side, the demand of consumers is personalized and diversified. So it is important to focus on the problem that whether the prepared foods can effectively connect with the consumer side through the existing production and marketing models in terms of capacity, cold chain and sales channels<sup>[3]</sup>.

### ***4.1. Data source and description of consumer characteristics of respondents***

This survey adopts the form of questionnaire to collect data on the consumption of prepared foods among consumers in Fujian Province. The questionnaire refers to the questionnaires related to the consumption of prepared foods and literature related to prepared foods. The pre-survey and modification are carried out before the formal release. From June 22, 2023 to July 5, 2023, the questionnaire was distributed through the platform of Juanxing and collected through communication software such as Wechat and QQ. A total of 600 questionnaires was collected, and 572 valid questionnaires was left after excluding the invalid questionnaires. This survey takes 9 prefecture-level cities in Fujian Province as research objects.

Among the 572 valid samples, the proportion of males and females is basically the same, of which 46.68% were males and 53.32% are females, which improves the representativeness of the survey results. 77.28% of the respondents are between 19 and 45 years old. Most of the respondents in this age group are office workers. It is a fact that most of the consumers who buy prepared dishes are office workers. The respondents have higher education level, mostly high school and above, accounting for 82.87%. In terms of income, 73.43% of the respondents have an average monthly income of more than 6,000 yuan.

### ***4.2. Consumer purchases of prepared foods***

The investigation of consumers is mainly from the following aspects: whether they have purchased prepared foods, the reasons or needs for purchasing prepared foods, the reasons for not purchasing prepared foods and their preferences for prepared foods<sup>[4]</sup>.

#### ***4.2.1. Circumstances and reasons for buying prepared foods***

The statistical results show that 84.97% of the respondents have purchased prepared foods, indicating that most consumers have been exposed to prepared foods. In terms of the reasons for buying prepared foods, 73.05% of the respondents chose the convenience of prepared foods. The second is cost performance or for daily taste replacement, each accounting for about 60%; The third is to use prepared foods as emergency reserve food, accounting for 58.02%. Some respondents also think prepared foods tasted good or wanted to try them out of curiosity.

15.03% of the respondents chose not to buy prepared dishes. The main reasons are as follows: First, they are concerned about the quality of prepared dishes, the shelf life of prepared goods and the addition of preservatives, which accounted for 60.47%. The second is that they think the prepared foods are not healthy or fresh, about 50% of each. The third is that the purchase channels of prepared dishes are not convenient enough, accounting for 44.19%. Fourth, the product information labeling is incomplete, accounting for 20.93%. Fifth, they feel that the taste of prepared foods are not as delicious as that of cooked dishes, accounting for 15.12%. It can be seen that although the sales scale of prepared foods in the C-end consumer market is expanding, many consumers are still worried about the quality of prepared dishes, and the key to developing the C-end consumer market is to break the inherent concept of consumers on prepared foods and expand sales channels.

#### ***4.2.2. The experience or feeling after purchasing prepared foods***

The majority of respondents have a good experience of prepared dishes, and 36.63% want to buy prepared foods again, 45.06% think that prepared foods have unique taste, and 30.25% think that prepared foods are good and inexpensive. There are also some respondents with poor experience of prepared foods, such as small amount of ingredients, low cost, cumbersome food cooking methods, heavy taste, improper transportation and other problems. It shows that there are still many prepared food products need to be improved in terms of taste, price and cost performance.

#### ***4.2.3. Respondents' preference for prepared foods***

Among the 486 respondents who have purchased prepared foods, the most popular ready-made food is the ready-to-cook product, accounting for 62.76% of the total number of respondents. The preference of the respondents for the types of prepared foods is ranked from high to low: ready-to-eat food > ready-to-eat food > ready-to-eat food = ready-to-eat food.

When customers are asked "What kind of food do you want prepared foods to serve?", home-cooked dishes ranks first, accounting for 78.4%, and other types of food proportion are as follows: baked western food 51.44%, barbecued stew 43.83%, pasta Chinese food 43.62%, braised stew 40.95%, and seafood 35.8%.

#### ***4.3. Factors influencing consumers to buy prepared foods***

In terms of the factors that affect consumers' willingness to buy prepared foods, the questionnaire is designed from product factors and enterprise factors. Respondents were asked to choose products from seven aspects: price, taste, variety, brand, food safety, nutritional value and packaging, and rated the importance of each factor, with the following five options: not important at all, not very important, average, relatively important and very important. The statistical results show that these seven factors are all key factors affecting consumers' purchasing decisions, especially food safety, which is considered very important by most respondents, accounting for the largest proportion. In the six areas of price, brand, variety, nutritional value and packaging (in order of proportion), the majority of respondents think it is more important.

In terms of business factors, the respondents were asked to choose from convenience of purchase, advertising, promotional activities and merchant reputation, and judge the importance of each factor. There are 41.26% of the respondents who considered business reputation to be very important, accounting for the largest proportion. Promotional activities, convenience of purchase, and advertising (ranked by proportion) were considered more important.

Finally, regarding consumers' evaluation of prepared foods, 63.29% of respondents are willing to try prepared foods, 61.54% think it is more convenient and cheaper than prepared foods in restaurants, 42.31% think that prepared foods give people a sense of accomplishment and make cooking experience more relaxed and interesting, and 31.82% of respondents will recommend prepared foods to people around them. Only 7.17% of respondents don't like to try prepared foods again.

### **5. Conclusion and countermeasure suggestion**

#### ***5.1. Conclusion***

This study uses the literature survey method to sort out the current situation of the prepared foods industry in Fujian Province and the situation of the prepared foods industry helping the rural revitalization. Then, it uses the field investigation method to conduct a questionnaire survey on consumers in the

prepared foods market, and studies the purchasing situation and influencing factors of consumers. Through the survey of consumers in Fujian Province, it is found that most consumers pay more attention to the food safety, preservatives, brands and other issues of prepared foods, which directly determines the consumers' purchase decision. The right price is also a concern for consumers. At the same time, on the consumer side, there are also some problems such as low taste recovery, quality and safety of prepared foods, which makes many consumers not think highly of prepared foods.

## **5.2. Countermeasure suggestion**

### **5.2.1. Develop industry standards for prepared foods and standardize product details identification**

Due to the popularity of prepared foods, a large number of enterprises enter the field. But there are safety risks in the production of some prepared foods, and the quality control of enterprises is not strict, resulting in some prepared foods enterprises' product quality and transportation problems. There is no guarantee after sale. These problems have affected consumer confidence and the future development of the prepared foods market. Making consumers eat at ease is a key factor in determining the long-term development of the prepared foods industry. First of all, it is important to formulate industry standards to promote the healthy development of prepared foods industry. Although Fujian Province has issued some standards on the prepared foods industry, the degree of standardization of prepared food products still needs to be further strengthened. It is suggested to strengthen cooperation with enterprises related to prepared foods, leading enterprises and industry associations through Fujian Province Prepared Foods Alliance, and formulate industry standards for prepared foods series to standardize the whole process from research and development, which provides a basis for the safety supervision of prepared dishes. Secondly, the detailed identification of prepared food products should be further standardized, so that consumers' right to know can be protected. Enterprises should mark reasonable prices for prepared dishes, and clearly identify the content of dishes in the set menu, the ingredients and amounts involved, the production date, the warranty date, the storage method, the subsequent processing method and other important information in the eye-catching position, so that consumers can have a full understanding of the product when purchasing<sup>[5]</sup>.

### **5.2.2. Launch prepared foods' brand with the help of the platform**

China has a large population, and consumers in different regions have obvious differences in eating habits and tastes, resulting in the inability to achieve universality of prepared foods. There are many kinds of prepared foods in Fujian, such as Fotiaoqiang, lychee meat, Fuzhou fish balls, Shaxian noodles, abalone with rice, etc., but they all have obvious regional characteristics. In the process of research, many enterprises have reflected that due to the geographical characteristics of products, the sales scope is limited. Fujian can rely on the long-standing food culture, sufficient raw material supply, high prepared food processing capacity and relatively developed cold chain logistics to build a brand of prepared foods with Fujian characteristics. First of all, local agricultural products can be used as raw materials for production, so as to build a brand of prepared foods with regional characteristics. Enterprises adjust product categories according to consumers' tastes and improve the variety of dishes. For example, while launching signature menu items, they also provide consumers with flexible choice of dishes. Enterprises can launch prepared foods with features such as less oil and no oil, low sodium and no salt, and low calorie control, with actively docking with well-known e-commerce platforms such as Tiktok, Alibaba and Jingdong to improve network visibility.

### **5.2.3. Strengthen the development of raw materials for prepared foods**

The booming development of prepared foods can make more profits flow to upstream industries, which not only maximize product quality and reduce food safety problems, but also increase farmers' incomes and promote rural revitalization. It can be seen that it is particularly important to strengthen the development of raw material side of prepared foods. Firstly, Fujian should focus on building raw material production base of prepared foods. The front-end raw materials of prepared foods are mostly market-based procurement in Fujian, so it is necessary to strengthen the cooperation between prepared foods related enterprises and local farmers' cooperatives, family farms and large breeding professionals, to build ecological breeding bases. Enterprises develop "order-oriented" agriculture, unified seed supply, fertilization, testing, to ensure that the upstream source of agriculture is safe and controllable, and constantly improve the level of industrial vertical integration. Secondly, it is necessary to strengthen the effect of prepared foods to unite farmers with farmers. The government encourages enterprises to cooperate with local farmers, provide technical support to farmers through the "company + base + farmer + standard + service" model, and guide farmers out of the dilemma of blind production and inefficient

management. Thirdly, Fujian Province has rich cultural and rural tourism resources, which can effectively combine prepared foods with traditional culture and rural tourism, by holding prepared foods activities in traditional cultural festivals, actively developing prepared foods + rural tourism quality projects and other forms.

#### ***5.2.4. Accelerate the development of cold chain logistics and distribution of prepared foods***

The two major issues that consumers worry about are the safety and taste of prepared foods, which are related to the development of cold chain logistics distribution. The quality of the whole process of prepared foods from ingredients, semi-finished products, finished products to consumption tables is closely related to the development of cold chain logistics. China's vast territory makes the transportation cost of prepared foods high in the distribution process, so that the transportation radius of prepared foods is limited, preventing the cross-regional development of prepared foods. After years of investment, Fujian province's product cold chain logistics has achieved rapid development, the comprehensive level of cold chain logistics ranks in the forefront. But with the increase in the variety and quantity of prepared foods, cold chain logistics system still needs to be further upgraded. First of all, automated storage cold chain of prepared foods needs to be built. The realization of automation in goods storage, warehouse division and output can not only reduce operating costs, but also greatly improve the distribution speed of warehousing links, laying a solid foundation for enterprises to achieve product traceability throughout the process and ensure the quality and freshness of dishes. Secondly, the informatization of cold chain logistics should be promoted. The planning of logistics information platform should be accelerated, the accurate and timely flow of logistics information between suppliers and manufacturers should be realized, which can achieve accurate and timely flow of logistics information between suppliers and manufacturers, and timely understand the market demand information of prepared foods.

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