

Analysis of the development of prospect of pre-made food

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Abstract. In recent years, pre-made food has become more and more popular in the market; thus, its revenues account for a huge part of the whole food market, especially in China, which accounts for one-third of the Asian food market. Therefore, the crux of this paper is to analyse the situation of the pre-made food industry and discover its market shares, product category and target population. Besides, this paper mainly focusses on Anjoy Foods Group Co., Ltd., which is a leading pre-made food enterprise in China, and finds its superior elements. Consequently, it shows that Anjoy Foods has excellent financing performance and multiple marketing methods to promote its product. At the final, this paper mentioned several suggestions that pre-made food merchants and the government can implement. For example, they can diversify products to satisfy more detailed requirements, improve technology to upgrade products's taste and nutrition, and enhance food safety supervision to dispel customers' concerns about food safety hazards.

1 Introduction

Nowadays, the increasing pace of modern life often leaves less time for cooking from scratch. Therefore, in order to satisfy the people's requirements of fresh meals, pre-made foods have been created. An American dictionary publishing company (Merriam-Webster) has defined pre-made food as food that enables it to be conveniently prepared and quickly serviced. Sen et al. defined that pre-made food would be cooked beforehand and then packaged and frozen. They also expound that pre-made food would always be stored in frozen areas and sold in proper packages. Besides, it has to have security cover and its manufacture date and expiration date must be shown on its package as well [1]. Phuong's report shows that pre-made food revenues accounted for 7.15% in the food market in 2023, which equals to US\$8.48 trillion. She forecasts that the pre-made food market is expected to grow annually by 6.39%. In 2029, the revenues of pre-made food will amount to US\$12.48 trillion. Phuong also found that Asia is the biggest pre-made food market, which accounts for US\$365.3 billion; China accounts for a third of revenues (US\$138.2 billion). In addition, the pre-made food market is expected to grow 4.4% in 2025, and until 2029, the volume of pre-made food is expected to amount to 114.90 bn kg. These data show the indispensability of pre-made

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food. This paper aims to discover the current development situation of pre-made food and analyse a Chinese pre-made food company in its financing, marketing and development [2].

According to the fast development of ready meals, people's attitudes toward them have polarised. Pre-made food can reduce cost to some extent. Drewnowski and Monsivais found that requirements of nutrient and health food by consumers can conflict with demands of convenience. In the United States, the time people spend on cooking decreases as the social and economic trend grows positively [3]. In 1965 to 2008, more than a third less time was spent preparing meals at home; most people used about 35 minutes to finish their cooking [4]. They considered that people prefer convenience in cooking daily meals. Therefore, pre-made food can satisfy people's pursuit of convenience and speed. Besides, pre-made food enables food to maintain freshness to some extent. For instance, fruits and vegetables have important states to guarantee enough nutrition for people. Due to their high moisture content and water activity, which increase the possibility of causing food spoilage. Pre-made food offers dehydrated and blanched fruits and vegetables to maintain the freshness and ensure the health of food [5,6].

However, the concerns about pre-made food emerge endlessly simultaneously. One of the most serious concerns is nutritional deficiency. Aceves-Martins, Denton and de Roos claimed that pre-made meals will cover a higher level of low-cost ingredients, such as saturated and trans-fats, refined starches, free sugars, and salts [7]. At the same time, Kanzler et al. found in their research that in the 32 analysed meals, there are 17 meals that exceed the recommended fat rate (over 30%); only one meal achieves the recommended minimum carbohydrate intake level for adults (over 101 grams), and 25 meals are lower than the standard level (less than 69 grams). Consequently, these results showed the imbalance of nutrition effectively. Besides, the process of preparing pre-made food is alarming [8]. For instance, in Ireland, merchants use horsemeat to substitute beef in order to gain financial revenues; in South Africa, a local cold meat was found contaminated by *listeria monocytogenes*, which infected 1060 patients and left 216 of them dead. From 2015 to 2018, there was another *listeria monocytogenes* case that caused 9 patients to die, and experts considered the virus may come from frozen corn. The researchers also found that merchants would deliberately fail to declare allergens, supervise ineffectively to cause cross-infection, design unclean, lack equipment, and maintain and isolate material improperly [9]. Moreover, pre-made food can be harmful to the environment. Aceves-Martins, Denton and de Roo, in their research, found that the greenhouse gas emission caused by pre-made meals has accounted for 15.7% of the total greenhouse gas emission from the UK's food industry. Some researchers compared the influence of environment with pre-made meals and home-made meals and results showed that home-made meals have lower influence; hence, home-made meals could avoid food processing, frozen storage and reduce food waste [7].

Previous articles focused on the negative effects of pre-made food. Therefore, it is more likely that consumers have more worries about pre-made food than trust. One of the main reasons may be that the negative news about pre-made food affects people's attitudes. It is normal that people will pay more attention to negative incidents. In China, there were roughly 5 to 10 major serious pre-made food incidents in 2023; those included significant recalls, health outbreaks, and regulatory actions. These events made people less receptive to pre-made food and inspired scholars in different fields to study it. As a result, the proportion of critical resources of pre-made food is high to some extent.

2 Development situation of pre-made food

2.1 Market scale

Due to the rapid development of the world, the time consumers are willing to spend on cooking is reduced dramatically. Accordingly, pre-made food has spread widely all around the world. In the Asia-Pacific region, Asians are required to pursue convenience in their daily habits [10]. As Phuong mentioned, China accounts for a third of the revenues of the Asian ready meals market. From 2022 to 2023, the revenues of ready meals in China have increased by 8.9%, which is far more than several countries in Europe [2]. In China, because of contractible household sizes and a fast-paced lifestyle, pre-made foods have been popular in daily life. In addition, in order to control epidemic transmission in the last several years, private parties were restricted to a great extent and supervision apartments appealed to people to reduce unnecessary connections, which improved regulations of family meals and accelerated the growth of pre-made foods. Meanwhile, the Chinese government encouraged food industries and supermarkets to enlarge the pre-made food market. Consumers could access better services through the improvement of pre-made food suppliers and distribution channels and were motivated by their demands by these progresses. Moreover, the Chinese government included pre-made food in 'No. 1 central document', which required pre-made food merchants to improve standardisation of clean dishes and kitchen environments and actively develop the pre-made food industry. Statistically, the pre-made food market achieved CNY 415.15 billion and with about 64,000 enterprises in 2022. Next three to five years, the pre-made food market would keep growing 20% annually and increase to CNY 1072 billion at the end of 2026. Consequently, the pre-made food market has particularly huge potential in the Chinese market [10].

2.2 Product classification

Xiong et al. claimed that pre-made food can be divided into four categories: ready to eat, ready to heat, ready to cook and ready to prepare. According to different product completions, it can be defined as primary food, semi-finished food and finished food. It usually is more convenient than normal cooking because people only need to heat prepared vegetables and meat with sauce [10].

2.3 Targeted customers

Although pre-made food has been reported to do harm to the environment compared with normal food, it can still be avoided by coerciveness or voluntary during manufacture to a great extent. Moreover, most fresh agricultural products easily rot; food processing can greatly improve this problem. Besides, compared with other countries, Chinese dietary habits and cooking styles will release more volatile organic compounds, which is the third-largest air pollution source and will cause negative effects on the environment and people's health. IiMedia Research's white paper found that more women will choose to purchase pre-made food in daily life. In Chinese pre-made food consumers, 80.6% of them are married and 68.8% of them have children. Next, female consumers account for 62.1% [10]. In the analysis made by Xiong et al., they found that female consumers dominate the sales as well. But in their data, they found that single people have more interest in pre-made food than married people because pre-made food can help them to save time and effort. Secondly, the family with old people and children shows less intention to purchase pre-made food because of concerns that such food lacks nutrition [10]. Finally, people who live in first- and second-tier cities prefer

to choose pre-made food as their daily meals. These results prove that due to the product's characteristics, it can satisfy people's demand for efficiency since people are willing to accept pre-made food. Additionally, females need to take more responsibility to finish household duties under most circumstances, but they still have to undertake work pressure; pre-made food enables them to reduce cooking time so that they can have more time to handle paid work outside the family to a great extent [10].

3 Analysis of the performance of Anjoy Foods company

As mentioned above, China has dominated the pre-made food market in Asia, which accounts for the third of the Asian pre-made food market. Therefore, this paper tends to focus on a specific Chinese pre-made food company to analyse its financing, market, and development situation.

Anjoy Food Group Co., Ltd. is a leading enterprise in the Chinese frozen food industry. It is mainly engaged in frozen hot pot material products, frozen noodles and rice products, frozen dishes and other frozen food. The company was established in 2001 and built its production bases in Xiamen, Sichuan, Henan and Guangdong and an extra six cities. Moreover, Anjoy has Anshan Anrun, Hubei Anrun, British Kung Fu Food, and other holding or equity subsidiaries, which extended Anjoy's business scale. In 2017, Anjoy Food Group Co., Ltd. listed on the main board of Shanghai Stock Exchange successfully, and its stock price increased by ten times in three years and its average income of A-share households ranks third in the whole market. During 20 years, Anjoy Food achieved "National Enterprise Technology Center", "CNAS National Laboratory Certificate" and "National Demonstration Enterprise of Staple Food Processing Industry" and several honors. Additionally, Anjoy Food has 290 patents and 58 invention patents included.

3.1 Finance

According to Anjoy Foods' annual report, in 2023 (Table 1), the operation revenue was about CNY 14 billion, which increased by 15.29% compared with the same period in 2022. The net profit attributable to shareholders of listed companies will be CNY 1.4 billion in 2023. This data shows that during 2023, Anjoy Foods provided 34.24% positive profits to its shareholders of listed companies. Besides, Anjoy Foods received CNY 1.9 billion cash with its operating activities and grew by 38.97% compared with 2022.

Anjoy Foods claimed that the main reasons for the high rate of growth are the cash received from the sale of goods and the provision of services, which increased significantly during 2023. The operation income of Anjoy Foods' traditional frozen prepared food and frozen noodles and rice products has increased steadily and the capability of product, transport and brand power have enhanced as well.

Table 1. Anjoy Foods' partial financing data

	2023	2022	Increased rate
Operation revenue	14,045,234,826.03	12,182,663,119.36	15.29%
Net profit attributable to shareholders of listed companies	1,478,066,338.58	1,101,029,966.93	34.24%
Cash	1,955,654,340.14	1,407,225,497.62	38.97%

3.2 Marketing

Anjoy Foods has established a series marketing mode, which enables it to sell on traditional channels or online service to extent its marketing scale. Anjoy Foods mainly classifies its marketing mode into 4 categories: offline store mode, direct-selling mode, e-commerce mode and new retail mode.

3.2.1 Offline store mode

Anjoy Foods divided its offline store mode into two main situations. One is depending on the supply and marketing contract. The company bases its purchases on contracts to deliver products and carries out reconciliations according to the agreement. The other one is consignment sales. Company will deliver in accordance regularly with the consignment contract, and company will recognise revenue according to the consignment list provided by the supermarket. Anjoy Foods sets 'health diet' as their brand appeal and arranges related whole-year promotion activities. They through Chinese diet culture and green healthy to improve their brand reputation and recognition. Moreover, they focus on Chinese traditional festive to implement activities. At present, the clients of Anjoy Foods mainly are RT-Mart, Wal-Mart, Walmart, and other hypermarkets with a large scale.

3.2.2 Direct-selling mode

Anjoy Foods target consumers cover large-scale chain catering, hotels, leisure food, and medium and large enterprise groups. Besides, with the positive development of Anjoy Foods, more catering fields tend to cooperate with Anjoy Foods, such as Xiabu Xiabu, Haidilao and other large-scale catering brands, and build long-term partnerships with these brands.

3.2.3 E-commerce mode

Anjoy Foods pays huge attention to establishing online e-commerce channels and engages in important shopping festival activities on different platforms. At the same time, they upgrade the reputation of the company's flagship store and customer service team and continue to strengthen brand publicity and new product promotion. Moreover, Anjoy Foods uses platform digital tools to discover consumers' demand and promote related products in order to maintain the connection between them and consumers.

3.2.4 New retail mode

The company actively extends cooperation with new retailers, such as Freshippo, Dingdong Vegetable, JDcom and Meituan. They follow the new retail mode and provide online service and offline experience with their powerful product research and development capability and product experience to strive for brand exposure.

3.3 Development situation in recent years

The financing report shows that the operation revenues of Anjoy Foods have increased dramatically in recent years. After 2022, the operation revenue of Anjoy Foods has reached CNY 10 billion and grown by 31.39% compared to 2021. Moreover, after 2019, the increase rates of Anjoy Foods increased sharply, which were all higher than 30%, and the highest rate even achieved 33.12%, which means customers more tended to purchase Anjoy's product.

Anjoy Foods gains significant improvement in its operation activities. As a result, these figures claimed that customers have greater acceptance of pre-made food in recent years. Therefore, the development situation of the pre-made food field shows particular positive performance.

4 Suggestions

As mentioned above, pre-made food is a particularly potential field in the present market due to its convenient usage and short cooking time. However, pre-made foods also have several points that should be improved. Firstly, pre-made food merchants ought to diversify their product due to customers having superior requirements. Except for convenience and short time, customers pay more attention to good flavour and high nutrition. Customers are eager to switch from home-made meals to pre-made foods with an equal standard. Moreover, pre-made food merchants can customise low-calorie and low-sugar foods for the fitness crowd. Secondly, pre-made food merchants should further upgrade their technology, such as food processing technology, fresh-keeping technology, packaging technology, etc. They should guarantee the product process would be supervised more seriously and has fewer food safety hazards. They need to further ensure that customers can be served with the safest products. Besides, according to the technology innovation, products can have greater taste, nutrition and especially a longer expiration date. In order to satisfy longer expiration dates, merchants should emphasise supply chain and logistics as well. They can rearrange the warehouse location and place popular products close to the warehouses. Then, making reasonable arrangements of vehicles and using arithmetic to plan the most suitable route in order to realise cost-efficient maximization. Finally, merchants should cooperate with the government to avoid food safety problems. The government should further define the concept of the concept of pre-made foods to increase customer awareness and acceptance and improve standard system development, which includes product processing, refrigeration, cold chain logistics, and regulatory responsibility. Moreover, they should build a food safety management system, such as strengthening risk control, controlling the quality of materials, strictly enforcing the use of food additives and cracking down on illegal activities.

5 Conclusion

This paper has studied that the pre-made food industry is a particularly potential field in the Asia market, especially in China, due to its high revenues and wide range of applications. However, with the development of Chinese pre-made food, the concerns about it appear consequently as well. The main concerns about pre-made foods are lack of essential nutrition, dirty product processing, and damage to the environment. Nevertheless, these problems only partly influence customers' purchases. Most customers are willing to accept pre-made foods. In addition, in order to discover how great pre-made food performance is in Chinese, this paper focusses on Anjoy Foods Group Co., Ltd., which is a leading enterprise in the Chinese pre-made food field. According to its financing report, the financing situation of Anjoy Foods is dramatically superior. Besides, they set four marketing methods to satisfy different customers' demands. As a result, Anjoy Foods' revenues keep growing sharply after 2019. Therefore, pre-made food merchants ought to extend their product categories to a great extent. For instance, merchants should diversify their product to satisfy special customers' requirements. They should further upgrade their technology to increase nutrition and keep good taste. Above all, they should improve food safety inspections to decrease customers' concerns and increase brand credibility. Consequently, pre-made food is a constantly improving field. People should pay more attention to perfect this field.

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