

Market Research on College Students' Acceptance of Prepared Dishes

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Abstract With the accelerated pace of life and the demand for dietary diversification, more and more people begin to pay attention to the convenience and health of diet, and the prepared dishes market is getting more and more attention and favor because of its characteristics of convenient and quick. In order to understand the acceptance of college students to the prepared dishes market, this paper aimed to collect college students' views and suggestions on the prepared dishes market by means of a questionnaire survey. By analyzing the results of the survey, we found that college students generally have a positive attitude towards prepared dishes markets, and they believe that prepared dishes provides convenient, fast and diversified dietary choices. However, some college students have some concerns about the quality and food safety of the prepared dishes market, such as adding too many food additives and preservatives. Through the research on college students' acceptance of the prepared dishes market, we can reveal the demand and potential problems of college students for the prepared dishes market from the consumer's point of view, so as to provide a reference for the future development of the prepared dishes market.

Key words Prepared dishes; College student; Market acceptability

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Prepared dishes, also known as prepared seasoned dishes. It generally refers to semi-finished or finished products processed by pre-selection, modulation and other processes with various kinds of agricultural, animal, poultry and aquatic products as raw materials, with seasonings and other auxiliary materials^[1]. With the development of society and the process of urbanization, prepared dishes have gradually attracted the attention of more and more college students due to their quick, convenient and time-saving characteristics. College students are diversified in their lifestyles, they are easy to accept new things, and they also pay more attention to health and quality of life, and pay attention to the health and diversity of diet. College students are somewhat different from other groups in their consumption habits. They are more willing to choose convenient and fast consumption methods, and at the same time, they have a strong learning ability, are willing to try new things, and are more sensitive to emerging consumer goods and services.

However, despite the rapid development of the prepared dishes market, there are still some potential problems and challenges. Firstly, consumers' acceptance of prepared dishes is still unclear, especially the views and attitudes of the college students. College students are one of the major forces in society, and the impact of their consumption decisions and preferences on the entire market cannot be ignored. Therefore, it is of great research significance to gain a deeper understanding of the current situation

of college students' acceptability of the prepared dishes. Secondly, as most of the prepared dishes are made through processing and packaging, there may be a certain degree of use of food additives and preservatives, which raises concerns about the safety and health of prepared dishes^[2]. Finally, with the rapid development of social media and the wide dissemination of information, college students' perceptions and attitudes towards the market for prepared dishes are likely to be influenced by outside influences. Understanding college students' attitudes and perceptions of prepared dishes provides insight into the impact of social media on them and the effectiveness of related promotional strategies. On the one hand, consumers' demand for food safety and hygienic quality is increasing, and the prepared dishes market needs to ensure the safety and controllable quality of their products. On the other hand, college students are a group of people who pay attention to healthy eating, and they pay more attention to the nutritional value of food and the source of ingredients.

Therefore, this study aimed to investigate the current situation of college students' acceptability of the prepared dishes market, and to understand the college students' knowledge and concerns about prepared dishes by analyzing their attitudes, purchasing behaviors and consumption preferences, so as to provide targeted suggestions and measures for relevant enterprises, governments and schools, and to promote the sustainable development of the prepared dishes market.

Research Methods

Questionnaire design

In order to further understand the current situation of college students' acceptance of the prepared dishes, a questionnaire survey for data collection was adopted. The questionnaire was designed by the members of our research team using the questionnaire network,

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and the paper questionnaire was converted into electronic form^[3]. This questionnaire is divided into two parts: the first part is the basic information of the respondents, including the gender, grade and one-month living expenses of the respondents; and the second part includes the degree of college students' cognitive level of prepared dishes, college students' purchase intention and understanding channels of prepared dishes, college students' concern about the quality and safety of prepared dishes, and college students' suggestions and expectations of the prepared dishes market. In the second part, there are five options according to the Likert 5 scale, with "1" representing very low importance and assigning 1 point, "2" representing low importance and assigning 2 points, "3" representing relatively low importance and assigning 3 points, "4" representing relatively great importance and assigning 4 points, and "5" representing great importance and assigning 5 points^[4].

Distribution and collection of questionnaires

This research took college students in universities in South-west China as the survey object, and collected questionnaires by distributing network questionnaires to WeChat group, QQ group and circle of friends. A total of 310 questionnaires were distributed and 300 valid questionnaires were recovered. Among them, male students accounted for 19% and female students accounted for 81%. Undergraduate junior (freshman, sophomore) students accounted for 70%, undergraduate senior (junior, senior) students accounted for 25%, and graduate students accounted for 5%.

Research Results and Analyses

College students' knowledge of prepared dishes

Degree of understanding: as shown in Table 1, according to the results of the research, most of the college students have some understanding of prepared dishes. Among the 300 survey respondents, there were 7 people (2.33%) who are very knowledgeable about prepared dishes and know all kinds of brands. 64 people (21.33%), had a basic understanding of prepared dishes and said they knew some well-known brands. 177 people (59%) were somewhat aware of prepared dishes and knew their general definition. The remaining 52 (17.33%) were completely unaware of prepared dishes. Overall, college students have a good understanding of prepared dishes.

Table 1 College students' understanding of prepared dishes

Depth of knowledge	Quorum	Proportions//%
Very knowledgeable	7	2.33
Basic understanding	64	21.33
A little bit	177	59.00
Not at all	52	17.33

Awareness of the advantages

Convenience and speed: College students are usually busy with their studies and other activities, so they have the needs of saving time and energy. Prepared dishes market provides a convenient and quick food solution where college students can get a

meal with simple heating or preparation steps.

Nutrition and Health: Modern college students are becoming more conscious of their health and eating habits. Prepared dishes markets usually offer ingredients that have been selected and optimized to ensure a nutritionally balanced meal. College students choose to buy prepared dishes to ensure adequate intake of nutrients and to develop healthy eating habits.

Affordability: As shown in Table 2, most college students have a monthly living cost of RMB 1 001 – 1 500. They have strong consumption needs but are limited by their financial conditions and pay more attention to value for money and cost-effectiveness, so affordability is a consideration factor for them to buy products from the prepared dishes market. Prepared dishes is usually available at relatively low prices, which can save the cost of food procurement and cooking.

Table 2 College students' one-month living expenses

Living costs	Quorum	Proportions//%
0 – 500 RMB	4	1.33
501 – 1 000 RMB	28	9.33
1 001 – 1 500 RMB	143	67.67
1 501 – 2 000 RMB	86	28.67
Over 2 000 RMB	39	13.00

Variety of choices and tastes: Prepared dishes markets usually offer a wide variety of food choices to cater for different tastes and dietary preferences. For those college students who like to try new dishes or seek for more flavor choices, prepared dishes markets can provide variety and innovation.

Environmental protection: More and more college students are concerned about environmental sustainability, and one of the reasons they may choose to buy prepared dishes is that it reduces food waste and carbon emissions from the cooking process. Prepared dishes offer precise portioning of ingredients, which reduces waste, and may also reduce the overall carbon footprint due to large-scale production.

College students' purchase intention towards prepared dishes

Purchase frequency: As shown in Table 3, in terms of purchasing prepared dishes, 34 people (11.33%) always purchased prepared dishes. 166 people (55.33%) frequently purchased prepared dishes, 85 people (28.33%) occasionally purchased prepared dishes, and the remaining 15 people (5%) never purchased prepared dishes. Overall, college students purchase prepared dishes more frequently.

Table 3 Frequency of purchasing prepared dishes by college students

Purchase frequency	quorum	Proportions//%
Always	34	11.33
Often	166	55.33
Occasionally	85	28.33
Never	15	5.00

Purchase motivation: As shown in Table 4, there are many factors affecting college students' purchase of prepared dishes, which mainly include: convenience, balanced nutrition, reasonable price, and a variety of flavors. Among them, taste is the most

important factor influencing college students to buy prepared dishes, accounting for 74.67%.

Table 4 Main factors affecting college students' purchase of prepared dishes

Considerations	Quorum	Proportions // %
Flavors	224	74.67
Prices	188	62.67
Convenience	185	61.67
Brand, reputation	105	35.00
Food safety	147	49.00
Balanced nutrition	93	31.00
Advertising	56	18.67
Else	11	3.67

Purchase channels: as shown in Table 5, most college students will purchase prepared dishes through offline physical shops (supermarkets, markets, *etc.*), online take-away platforms for home delivery (Hungry's, Meituan, *etc.*) and e-commerce shopping platforms (Taobao, Jingdong, *etc.*)^[5]. Their percentages were 80.35%, 52.98%, and 52.63%, respectively.

Table 5 Channels for college students to purchase prepared dishes

Purchase Channels	Quorum	Proportions // %
Offline shop	229	80.35
Online takeaway platforms	151	52.98
E-commerce shopping platform	150	52.63
Direct Internet broadcasting	78	27.37
Community group buying	77	27.02
Else	5	1.75

College students' concern about the quality and safety of prepared dishes

Quality Perception: As shown in Table 6, college students value the health and safety of prepared dishes at 3.925, the special packaging of prepared dishes at 2.735, the characteristic flavour of prepared dishes at 3.64, the nutritional value of prepared dishes at 3.73, and the appearance and taste of prepared dishes at 3.5. Through the scores of the respondents on the quality of prepared dishes, we can understand that college students' concern for the quality of prepared dishes mainly lies in the health and safety of food (ingredients). Through the scores of the respondents on the quality of prepared dishes, we can understand that college students' concerns about the quality of prepared dishes mainly lie in the health and safety of food (freshness of ingredients and food processing techniques and methods), nutritional value of food, characteristic flavor of food, and the appearance and taste of food^[6].

Table 6 College students value the quality of prepared dishes

Quality	Average value
Health safety	3.925
Featured Packaging	2.735
Characteristic Flavours	3.640
Nutritional value	3.730
Appearance and Taste	3.500

Awareness of safety: Through Table 6, we can know that college students attach most importance to the health and safety of food. College students usually live near the campus, and convenience stores and canteens are the main ways for them to get food. When buying prepared dishes in convenience stores, they often pay attention to the food safety labels and the ingredient lists on the packages^[7]. especially for students majoring in food, they are more sensitive to food additives, food preservatives and food thickeners, *etc.*, and they will avoid prepared dishes with many food additives and other ingredients, and choose healthier and safer food. In the canteen, they will also pay attention to the freshness of the ingredients, whether the food is well-mixed and the storage environment of the ingredients, so that they can eat with greater confidence and peace of mind.

Expectations of college students for the development of pre-fabricated dishes markets

Innovation needs Health and nutrition demand: The innovation demand of college students for prepared dishes is firstly reflected in the pursuit of health and nutrition. Modern college students generally pay attention to balanced diet and nutrition, so their expectations for prepared dishes gradually tend to be healthy low-fat, high-fibre products rich in vitamins and minerals. In addition, some college students also put forward higher requirements for prepared dishes with special dietary needs (*e.g.* vegetarian, gluten-free).

Flavor and quality demands: College students' demand for innovation in prepared dishes also includes the pursuit of taste and quality. They hope that prepared dishes can provide a variety of flavor options to meet the needs of different taste preferences, and they also hope to enjoy the quality and taste comparable to eating out. Therefore, in the development and innovation process of prepared dishes, it is necessary to consider how to maintain the freshness and taste of ingredients, as well as how to enhance the quality and flavor of food^[8].

Convenience and personalization needs: For college students, quickness and convenience are one of the important reasons for choosing prepared dishes. However, the definition of convenience for modern college students has changed. They not only require easier heating and serving processes for prepared dishes, but also want to personalize them according to their individual tastes and preferences, *e.g.* providing customized solutions based on dietary preferences, ingredient taboos, *etc.* Therefore, suppliers of prepared dishes need to take into account the satisfaction of personalized needs in their product design and services.

Sustainability concerns Firstly, the production process of prepared dishes may involve energy consumption and carbon emissions. Large-scale production of prepared dishes requires large amounts of energy for processing, packaging and distribution. This may lead to overdependence on traditional energy resources, increasing greenhouse gas emissions and contributing to climate change. Therefore, research on the sustainability of prepared dishes should consider strategies to reduce energy use and minimize carbon emissions.

Secondly, the packaging of prepared dishes is also an important sustainability issue. Prepared dishes are usually sold in plastic packaging, which can increase the generation of plastic waste.

Plastic waste causes serious pollution to the environment; therefore, sustainable packaging materials and packaging designs need to be researched and explored to minimize the negative impacts on the environment.

In addition, the choice of ingredients for prepared dishes is also relevant to the issue of sustainability. Some prepared dishes may use large amounts of pesticides, chemical fertilizers and genetically modified ingredients, which have negative impacts on the ecosystem and human health. Therefore, examining the sustainability concerns of prepared dishes should also take into account the choice and origin of ingredients in order to promote a healthier and environmentally friendly food supply chain.

Finally, the consumption of prepared dishes is also relevant to sustainability challenges. Consumers' choices and purchasing behavior towards prepared dishes also have an impact on the development and sustainability of the market. Therefore, research on sustainability concerns should also include investigations and analyses of consumer awareness, preferences and purchase motivations.

Conclusions

Looking ahead, the market for prepared dishes still has much room for development. With the popularity of healthy diet and changes in lifestyle, the prepared dishes market will gradually develop in the direction of health, nutrition and convenience. Meanwhile, with the progress and application of technology, the prepared dishes market will also usher in more innovation and change.

In conclusion, through this research and analysis, we can see that most of the interviewed college students show positive attitudes towards the prepared dishes market and are willing to try to buy

and consume prepared dishes products, but also put forward higher requirements for the quality and trust of the products. Therefore, for prepared dishes companies, the prepared dishes market needs to further enhance transparency and information disclosure in order to increase college students' trust in their products, and needs to be improved in terms of product quality, hygiene supervision, healthy dishes and brand promotion. Through the implementation of these measures, it is believed that the prepared dishes market will have a broader market prospect among college students.

References

[1] LIU DY, ZHANG Y, ZHANG JM, *et al.* Several suggestions on promoting the innovation and development of prepared dishes industry[J]. Meat Industry, 2022(7): 1–6.

[2] WANG W. Prepared dishes and their research status, existing problems and development prospects. Meat Research, 2022, 36(9): 37–42.

[3] LEI LH, CHEN J, LIU YE, *et al.* Analysis and evaluation of the research results of nursing research status in a hospital[J]. PLA Journal of Hospital Management, 2016, 23(5): 435–437.

[4] LI RY. An Empirical study on college students' satisfaction with school entrepreneurship courses[J]. Educational Theory and Practice, 2023(6): 15–18.

[5] PU Y. Thoughts on the development of prepared dishes in the post-epidemic era[J]. Industry City, 2022(10): 38–41.

[6] JIA YY. Research on the status, quality and safety and prospect of prepared dishes[J]. China Food Industry, 2022(17): 54–57.

[7] LIU C. A brief analysis of making prepared dishes a safe dish[J]. Food Safety Guide, 2022(21): 25–27.

[8] ZHAO LL. Research on the status quo and problems of the prepared dishes industry[J]. Modern Marketing (Business Edition), 2021(9): 146–147.

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[64] XIA Y, CHENG Q, MU W, *et al.* Research advances of D-allulose: An overview of physiological functions, enzymatic biotransformation technologies, and production processes[J]. Food Biotechnol. , 2021, 123(2): 170–176.

[65] KIM K, KIM HJ, OH DK, *et al.* Crystal structure of D-psicose 3-epimerase from *Agrobacterium tumefaciens* and its complex with true substrate D-fructose: A pivotal role of metal in catalysis, an active site for the non-phosphorylated substrate, and its conformational changes[J]. Mol Biol. , 2006, 361(5): 920–931

[66] ZOU SP, ZHONG W, XIA CJ, *et al.* Mutagenesis breeding of high echinocandin B producing strain and further titer improvement with culture medium optimization[J]. Bioprocess Biosyst Eng. , 2015, 38(10): 1845–1854.

[67] ADAN A, ALIZADA G, KIRAZ Y, *et al.* Flow cytometry: Basic principles and applications[J]. Crit Rev Biotechnol. , 2017, 37(2): 163–176.

[68] KAISER T, FENG G. Tmem119-EGFP and Tmem119-CreERT2 transgenic mice for labeling and manipulating microglia[J]. ENEURO, 2019, 6(4): ENEURO.

[69] NORONHA JC, BRAUNSTEIN CR, BLANCO MEJIA S, *et al.* The effect of small doses of fructose and its epimers on glycemic control: A systematic review and meta-analysis of controlled feeding trials[J]. Nutrients, 2018, 10(11): 1805.

[70] ILHAN E, POCAN P, OGAWA M, *et al.* Role of 'D-allulose' in a starch based composite gel matrix [J]. Carbohydr Polym. , 2020(228): 115373.

[71] GU L, ZHANG J, LIU B, *et al.* High-level extracellular production of D-psicose-3-epimerase with recombinant *Escherichia coli* by a two-stage glycerol feeding approach [J]. Bioprocess Biosyst Eng. , 2013, 36(11): 1767–1777.

[72] CHEN J, ZHU Y, FU G, *et al.* High-level intra- and extra-cellular production of D-psicose 3-epimerase via a modified xylose-inducible expression system in *Bacillus subtilis*[J]. J Ind Microbiol Biotechnol. , 2016, 43(11): 1577–1591.

[73] FU G, ZHANG S, DONG H, *et al.* Enhanced production of D-psicose 3-epimerase in *Bacillus subtilis* by regulation of segmented fermentation [J]. Biotechnol Appl Biochem. , 2020, 67(5): 812–818.