

Research on the Business Model and Corporate Strategy of Functional Foods under the "Sugar-Phobia Economy" - A Case Study of Tangyou Baobao

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Abstract: This article takes the emerging functional food brand Tangyou Baobao as the research subject. In the context of the rise of the "sugar-phobia economy", the article explores its business model and development strategy. The research validates the effectiveness of its strategy through a questionnaire survey targeting diabetic patients and high-risk groups, and identifies potential risks. From the study, it is concluded that Tangyou Baobao successfully opened up a blue ocean market distinct from ordinary sugar-free foods by precisely focusing on the specialized market of diabetes-specific foods. However, it is confronted with issues of price, trust and product risks. Finally, based on the analysis results of the data, this article proposes corresponding strategic suggestions to provide reference for the strategic decisions and risk management of similar functional food brands.

Keywords: Functional Food; Business Model; Development Strategy; Diabetic-specific Food

1. Introduction

Since the 1980s, with the rapid development of the food industry and the profound transformation of residents' dietary structure, sugar-containing beverages and processed foods have become increasingly popular in daily life. At the same time, the prevalence of diabetes has continued to rise and shows a significant trend of younger age. Diabetes expert Chen Liming stated that the number of diabetes patients in China has exceeded 140 million. The statistics for the working population aged 18 to 49 show that the diabetes prevalence rate in 2010 was 13.2%, and it rose to 17.5% in 2017^[6]. The professional population mainly composed of young and middle-aged people has increasingly become the main force of diabetes, which is closely related to the working environment, diet and lifestyle^[6]. Thus, it can be seen that the prevalence has been increasing year by year, and the trend of younger age among diabetes patients is obvious. The phenomenon of young people getting diabetes has become an undeniable reality issue in today's society.

The trend of younger-onset diabetes is becoming increasingly evident in today's society, and changes in dietary habits are one of the key factors^[4]. This phenomenon has given rise to new consumption demands and economic forms, which are referred to in this analysis as the "sugar-phobia economy". The so-called "sugar-phobia economy" refers to the total sum of preventive, alternative, and management demands generated by the public due to their concerns about the health risks such as diabetes, obesity, caused by excessive sugar intake. It consists of three levels: the first is preventive demand, that is, people who are not yet ill but are afraid of getting sick actively choose low-sugar and sugar-free products; the second is alternative demand, that is, people who are already ill look for glucose-friendly products that can replace ordinary food; the third is management demand, that is, by using tools such as blood glucose meters to monitor and manage sugar intake.

Traditional treatment methods such as drug intervention do have some effect in lowering blood sugar, but they often come with varying degrees of toxic side effects, and the blood sugar fluctuations of some patients still cannot be controlled ideally. Therefore, functional foods have rapidly gained popularity due to their special nutritional components, which enable them to regulate the body's metabolism^[7]. Against this backdrop, the functional food market has emerged. Among them, diabetes-specific foods, as a specialized sector, specifically serve the alternative needs of diabetes patients and high-risk groups, who also have the need to snack and drink beverages, but they cannot consume ordinary ones. Tangyou Baobao (a Chinese brand specializing in sugar-control food) is a representative brand in this sector,

founded by its founder Zhu Shuiwang based on his personal experience of his mother having diabetes. The brand's mission is "to enable diabetic patients to have a good meal".

2. Questionnaire Research

2.1. Survey Subject

The subjects of this study were diabetic patients and high-risk individuals, focusing on the core group of the "sugar-phobia economy". Through the screening questions at the beginning of the questionnaire (whether the person or their family members have diabetes, and whether they pay attention to blood sugar health), it was ensured that the sample was highly relevant to Tangyou Baobao's target market. At the same time, referring to the age distribution of users on the Dnurse platform, the age of the research subjects (from 18 years old to 50 years old and above) was divided into six intervals. As can be seen from the Figure 1, the sample distribution of this questionnaire is presented, and the majority of the respondents are young people.

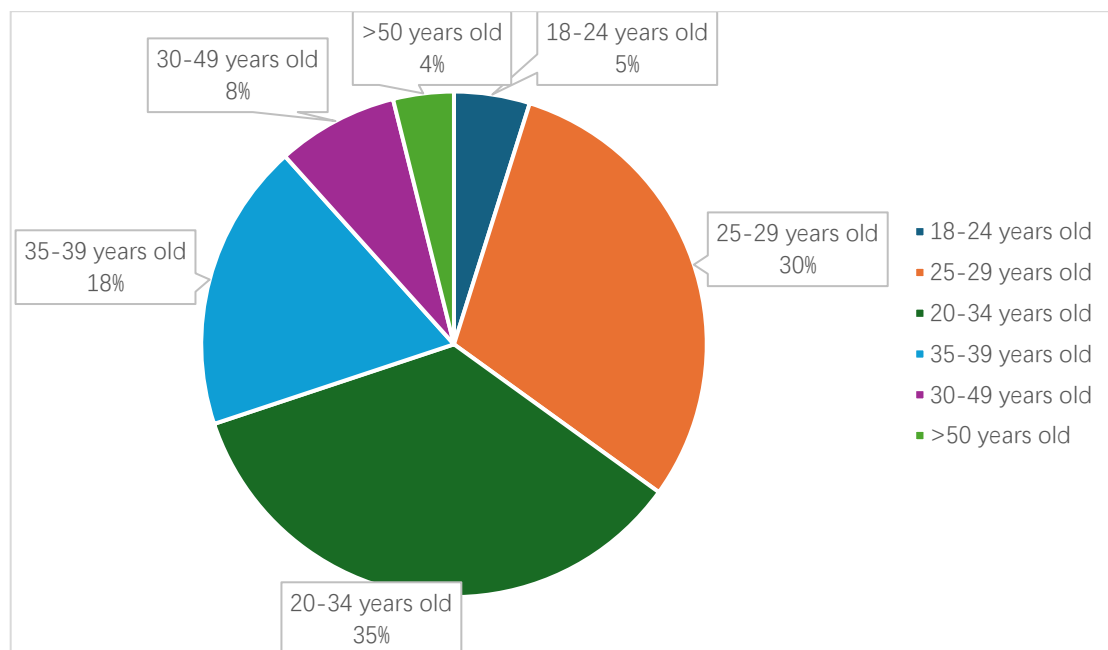


Figure 1: Age distribution chart of diabetes patients

2.2. Questionnaire Design and Data collection

To further investigate consumers' perceptions and attitudes towards diabetes-specific foods, this study employed the Likert scale to conduct research on multiple influencing factors. The questionnaire covered various dimensions such as consumption behavior, product perception, price, risk perception, and improvement suggestions. It also surveyed users' preference for purchase channels and usage preferences to understand their purchasing behavior characteristics, and collected suggestions for brand development from aspects such as products, prices, trust, services, and marketing.

The questionnaire was distributed through online platforms, and the main target group was filtered out based on the conditions of not paying attention to blood sugar health and having neither oneself nor family members suffering from diabetes. Respondents from these two categories were excluded. A total of 103 questionnaires were collected, and finally 103 valid questionnaires were obtained, with a 100% effective response rate. From the questionnaire, regarding the disease status, The proportion of young adults aged 20-39 with diabetes in the sample is approximately 30.80%, which provides data support for this study regarding the views of young patients on functional foods for diabetes.

3. Analysis of Development Strategy

3.1. Strategic Background

Tangyou Baobao was founded in 2019, during a period when diabetes is becoming increasingly common among younger people. Dietary management is the cornerstone of blood sugar control [2]. By further understanding diabetes, it can be discovered that in current clinical treatments for diabetes, dietary control is the top priority. Only by strictly controlling the diet can the effect of blood sugar control be guaranteed[1]. The brand founder, Zhu Shuiwang, witnessed the decline in the quality of life of patients due to their fear of eating and drinking after his mother was diagnosed with diabetes. Therefore, he founded the brand.

According to the latest estimate by IDF, the number of diabetes patients in China has exceeded 140 million and is showing a trend of becoming younger. In order to effectively prevent and control diabetes, it is necessary to make appropriate adjustments and controls to the patients' diets[8]. Traditional sugar-free foods are mainly targeted at young people who are afraid of gaining weight, rather than diabetic patients who truly need to control their blood sugar. The latter not only need sugar-free foods but also foods that do not raise blood sugar. Moreover, a new study by the French health research institution INSERM shows that the common food additive mixtures in sugar-free foods may slightly increase the risk of type 2 diabetes in people[3]. Tangyou Baobao seized this market gap and has focused on the diabetes-specific food sector since its establishment.

Data shows that the level of residents' health literacy has increased from 8.80% in 2012 to 33.69% in 2025, and public attention to health has continued to rise. Against this backdrop, the market size of functional foods is constantly expanding, and diabetes-specific foods, as a sub-segment, are experiencing a period of rapid development.

3.2. Market Segmentation and Target Market Selection

In the early stage of entering the market, Tangyou Baobao did not choose to compete head-on with mainstream health food brands in the broad market. Instead, based on demographic factors, consumer psychology and behavioral variables, it conducted precise segmentation of the health consumption market:

In terms of demographic factors, Tangyou Baobao serves diabetic patients of all ages. Referring to the age distribution of users on the Dnurse platform (27% over 50 years old, 21% between 40-49 years old, and 52% under 39 years old), combined with the trend of younger diabetes patients, this study focused the research on the 18-49 age group.

In terms of consumer psychology and behavioral factors, diabetic patients desire normal diets but face the problems of not daring to eat or drink, have concerns about ordinary foods, and are disgusted by the phenomenon that traditional diabetes foods are not tasty. They are seeking solutions that are both safe and delicious.

Based on this, Tangyou Baobao chose to target diabetic patients and their families who have concerns about ordinary foods but have the need for normal diets as its core target market. This choice avoided red-hot competition with traditional sugar-free foods and entered a high-growth potential incremental market.

In this Figure 2, it is first indicated that users clearly perceive Tangyou Baobao's focused positioning. The high mention rate of "diabetes-specific" shows that users do not confuse it with ordinary sugar-free foods. Secondly, Tangyou Baobao's differentiated selling points, such as "low GI" and "non-glycemic", are presented in the largest font size, indicating that the brand's alternative demand positioning has been perceived by users. Finally, "delicious" and "professional" have the same mention rate, preliminarily verifying that the brand's value proposition of "both safe and delicious" is forming a perception.

4.3. Functional Layer Strategy: 4P Theory

4.3.1. Product Strategy

The core of Tangyou Baobao's product strategy is to enable diabetics to have a balanced diet and to create diabetes-specific foods that are both safe and delicious. From the perspective of product portfolio strategy, Tangyou Baobao adopts a new product development strategy and a product portfolio strategy. Under the core product line of "diabetes-specific foods", it has gradually expanded from the initial biscuits to beverages, snacks, and other product lines, continuously enriching the depth and breadth of the product portfolio to meet the substitutive needs of diabetics in different scenarios. From the perspective of new product development strategy, its newly created product lines are independently developed based on a deep understanding of the needs of diabetics, rather than simple modifications of traditional foods.

The Figure 3 reveals the core needs of users for diabetes-specific foods. The distribution of users' choices validates the direction of Tangyou Baobao's product strategy: adhering to the core attributes of the product, enhancing ingredient transparency, and continuously optimizing the taste experience, which is highly consistent with the expectations of users.



Figure 3: Core Advantages of Diabetic Specialized Food Expectation Word Cloud

4.3.2. Price Strategy

The basic pricing method of Tangyou Baobao mainly adopts the demand-oriented pricing method. The set price is not based on costs, but on the value created for customers, such as professionalism and product features. Besides, as an innovative product entering the market for the first time, it adopts a medium-to-high pricing strategy to establish a professional and high-end brand image, quickly recover the research and development investment and establish brand recognition. Therefore, its main pricing strategy mainly adopts the skimming pricing strategy. As shown in the Figure 4, the data verifies the market acceptance of the skimming pricing strategy and also reveals the challenges it faces. When asked about the perception of the price level of diabetes-specific food, 53.4% of the users thought it was "slightly expensive, but acceptable", indicating that the skimming pricing strategy has been recognized by the market to a certain extent. However, about 27% of the users still thought the price was too high, indicating that the brand needs to continue to invest in price optimization.

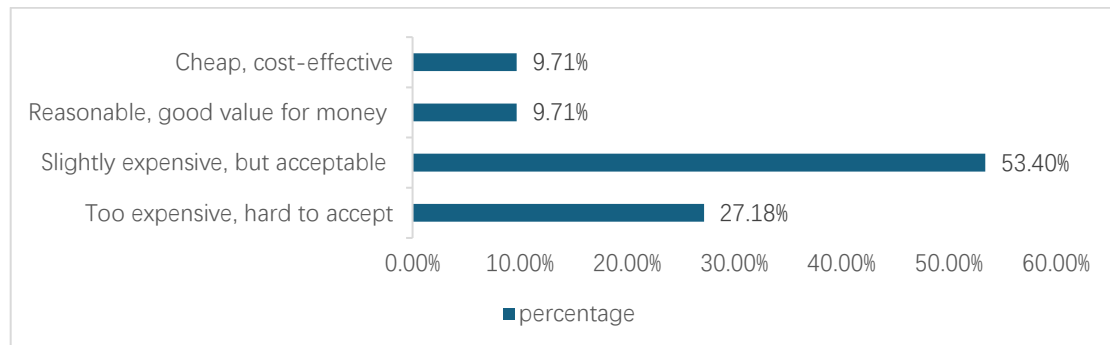


Figure 4: Price level perception distribution chart

4.3.3. Place Strategy

Tangyou Baobao adopted a channel strategy that mainly relied on the online DTC model and supplemented with offline channels, and implemented a exclusive distribution strategy. All products were sold only on official channels to ensure the consistency of brand experience and better control brand quality.

The Figure 5 shows the distribution of users' preference for purchase channels, ranking each channel from the highest to the lowest based on the mention rate. The Tmall/Jingdong flagship stores had a mention rate of 73.79%, which was far ahead.

This Figure 5 validates the effectiveness of Tangyou Baobao's channel strategy: the direction of mainly relying on the online DTC model is correct. The Tmall/Jingdong flagship stores and the official mini-program cover a wide range of users. At the same time, the high mention rates of supermarkets, convenience stores and offline pharmacies indicate that the offline channels are an important supplement. As a diabetes-specific food, convenient offline purchase remains an important demand for users. Although the hospital channel has a low mention rate, the data from another question in the questionnaire shows that 66.99% of users trust the endorsement of tertiary hospitals, indicating that this channel has a special strategic value of conveying professional trust.

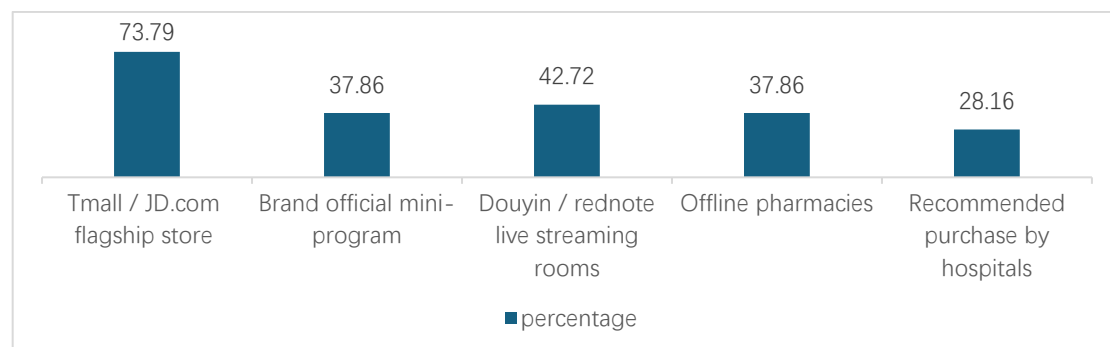


Figure 5: Distribution Chart of Purchase Channel Preferences

4.3.4. Promotion Strategy

Its strategy is a combination of "pull strategy" and "push strategy", with the "pull strategy" being the main approach. The "pull strategy" refers to attracting consumers to actively seek the product through large-scale content marketing and word-of-mouth marketing. The "push strategy" involves delivering product information to potential users through digital advertising.

The data shows that the main way users learn about the product is through rednote and Douyin bloggers' reviews, which ranks first with 32.04%. Doctor recommendations and patient community sharing follow closely. These three constitute the main channels through which users obtain information.

This Figure 6 illustrates the effectiveness and limitations of Tangyou Baobao's promotional strategy: The direction of the "pull strategy" is correct. The combined proportion of rednote and Douyin blogger reviews and patient community sharing is 58.25%. Doctor recommendations, as an important channel for trust transmission (28.16%), indicates that brands need to upgrade doctor recommendations from an information channel to a trust endorsement. Official brand explanations only account for 5.83%, and platform search only accounts for 7.77%. This shows that users trust user recommendations rather than the marketing of enterprises. Brands need to integrate official content into third-party channels that are trusted by users.

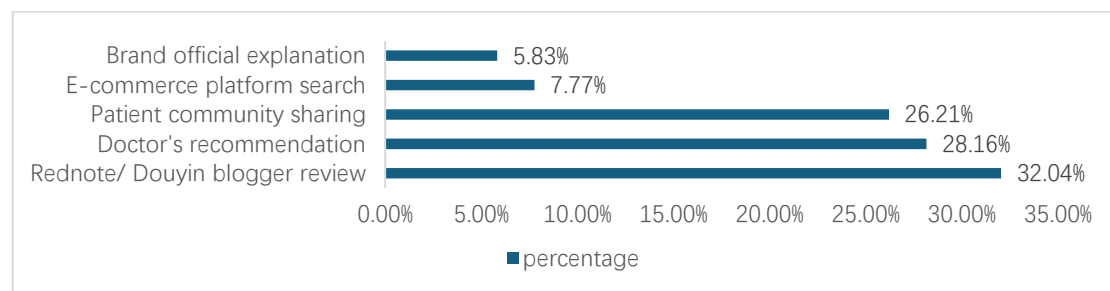


Figure 6: Distribution Map of Information Acquisition Channel Preferences

5. Data-driven Strategic Recommendation

5.1. Specific Suggestions for Tangyou Baobao

Figure 7 presents the data in the form of a radar chart, integrating the six most concerned dimensions of users and categorizing them into three main risks: price, trust, and product. The Figure 7 visually displays the intensity distribution of each dimension. The price burden ranks the highest at 63.11%, representing the strongest demand from users. Effectiveness trust and authoritative endorsements follow. The following is a classification by risk type and the proposed targeted suggestions.

First, regarding the price risk, optimize the price structure and subscription model. The price burden is presented with the highest score in the radar chart, being the core concern of users. Moreover, price optimization is also at a high level, indicating the strong expectation of users for lower prices. However, in the questionnaire, half of the users stated that if there were a long-term subscription service, their purchase intention would increase. Therefore, Tangyou Baobao can attempt to design a long-term subscription plan and attract more customers through price discounts. At the same time, strengthen value communication and clearly convey to users the reasons for the higher product price, thereby enhancing users' acceptance of price premiums.

Second, regarding the trust risk, strengthen effect verification and authoritative endorsements. Both of these factors are at a high level in the radar chart. 56.31% of users are concerned about "the actual effect not being as advertised", and 53.4% of users hope for "authoritative institutions' endorsement". Another data statistic from the questionnaire shows that 44.66% of users are worried about product food safety (very worried + somewhat worried). It is suggested that Tangyou Baobao can conduct clinical observations with authoritative institutions, use real data to verify product effects, and enhance credibility with real case examples. At the same time, strive for detection and certification from industry associations or government regulatory agencies, and regularly release safety reports to enhance consumers' trust in the company's products.

Third, regarding the product risk, enrich the product line and explore device linkage. In addition to the data in the Figure 7, 50.49% of users are concerned about "poor taste and difficulty in persistence", 47.57% of users hope for "more flavor options", and 49.51% hope for "linkage with blood glucose monitoring devices". Tangyou Baobao can attempt to explore linkage with blood glucose monitoring devices, develop an App to record blood sugar changes after consumption, provide personalized dietary advice, and enhance the competitive advantage of the product.

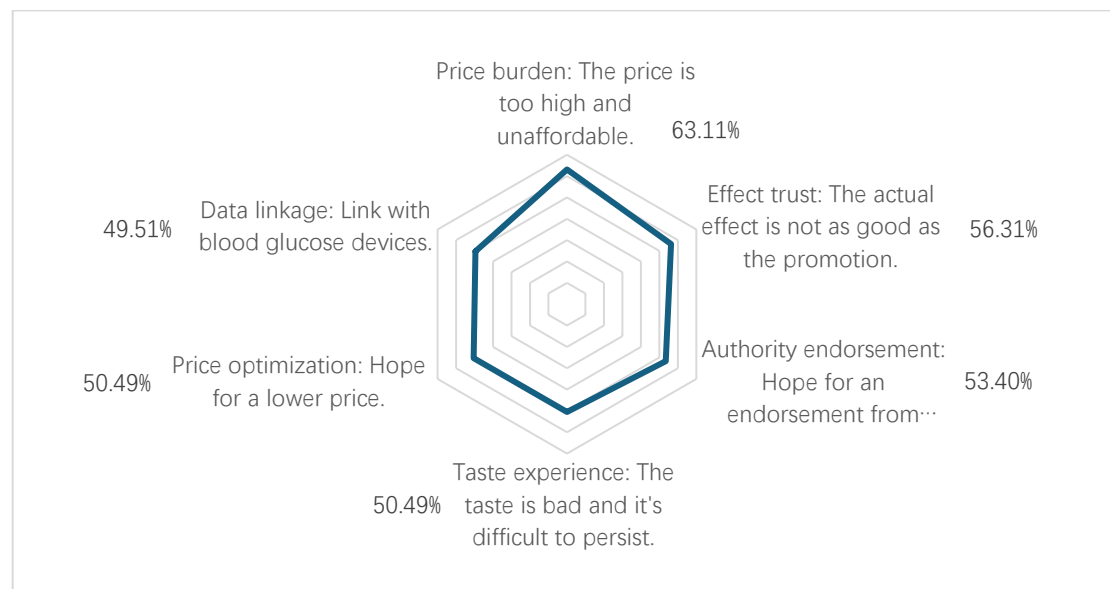


Figure 7: Radar chart of the intensity of users' core improvement requirements

5.2. Conclusions and Implications for Similar Enterprises

This article takes Tangyou Baobao as an example and adopts a method combining questionnaire surveys and strategic analysis to study the business model and development strategy of functional foods

in the "sugar-phobia economy" context. The research shows that Tangyou Baobao successfully opened up a blue ocean market distinct from traditional sugar-free foods by precisely focusing on the substitutional needs of people with diabetes. The questionnaire data indicates that users' core impressions of the brand are mainly concentrated on "low GI", "non-glycemic", and "diabetes-specific", indicating that its focus on differentiated positioning has been successfully accepted by users. At the same time, the research also reveals the core risks faced by the brand, which constitute the threshold that a brand must overcome on its journey from start-up to maturity. This also reminds similar enterprises that the competition of functional foods is not only a cognitive battle and a price battle, but also a trust battle. When the brand defines its own position, it must take building the user trust foundation as the strategic core, and respond to consumers' concerns with real data. At the same time, it needs to find a balance between professionalism and price, and reduce the price risk through subscription plans and other methods, so that the brand can develop better.

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