

Research on the Development Trend of Sugar Free Drinks

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Abstract. Sugar-free beverages have become increasingly popular among consumers in recent years, with increasingly diverse product types, driving sustained scale growth in the industry. Against the backdrop of continuously improving health awareness, China's sugar-free beverage industry has broad prospects for development. Sugar-free beverages are considered to be a healthier beverage and have been loved by more and more consumers in recent years. Sugar free beverages are mainly divided into tea drinks, sugar free carbonated beverages, and other sugar free beverages, which can meet the needs of different consumers for tastes and dietary habits. This article has conducted a study on the characteristics, market, and enterprises of sugar free beverages. The issue of obesity is troubling many people, and the market value of the industry has reached nearly 2 billion yuan. Also, some suggestions were proposed for the development of the future.

Keywords: Sugar free drinks; Market value; Healthy habit; China.

1. Introduction

According to the "White Paper on Sugar Reduction Action for Healthy Chinese Beverages and Foods (2021)", China's sugar-free beverage market will exceed 20 billion yuan. A compound annual growth rate of 7%. In the context of consumers pursuing the concept of health, the domestic sugar-free beverage industry is ushering in the best development opportunity in history. The core demands of consumers for sugar control have gradually shifted from low sugar "Less sugar is upgrading to" sugar free, zero sugar ", and more and more enterprises and brands are actively embracing this trend. Although some sugar-free beverages are slightly more expensive than ordinary beverages, this has not affected consumers' enthusiasm for purchasing sugar-free beverages, especially for those who are keen on weight loss or sugar control. Compared to traditional beverages, the sugar-free beverage market is still a relatively new market."

Especially in China, the sugar free beverage market is only in its infancy, with broad prospects and imagination. With the increasing attention paid to health, the demand for sugar-free beverages is bound to increase, which in turn will bring dividends for the rapid development of beverage enterprises, and even provide some enterprises with rare opportunities to "overtake on corners."

Czoli et al. examined the relationship between sales data of sugary beverages in Canada and dietary recall data was studied, the data indicates that from 2004 to 2015, the consumption of sugary beverages showed a downward trend, but there were significant differences in quantity [1]. Maria et al. studied the gradual sugar reduction strategy in the Austrian beverage market, it was found that the share of low-sugar beverages is gradually increasing, which will have a significant impact on the policy and ultimately affect the marketing strategy of enterprises. [2]. Clemitson used a data analysis method to study people's demand for sugar-free products and their shelf location, and found that selling shelves based on sugar content (shelf format) had no impact on the demand for sugar-free products [3]. Berman and Johnson investigated the impact of bottled water policy restrictions on students' purchase of sugary beverages, and found that the number of sugary beverages purchased by students increased after the restrictions were lifted, indicating that students' preference for sugary beverages was still high [4].

Therefore, this article conducts research on sugar-free beverages from the perspectives of their characteristics, policies, markets, and companies, hoping to obtain corresponding inspiration.

2. Characteristics and policies of sugar-free beverages

The internationally accepted concept of sugar free beverages refers to the inability to add sucrose and sugars derived from starch hydrolysates, including glucose, maltose, fructose, starch syrup, glucose syrup, and fructose syrup. However, sugar-free foods can contain "sugar substitute" sweeteners, typically using sugar alcohols or other types of sweeteners that do not increase blood sugar. China's current national food safety standard stipulates that the "sugar free or non sugar" in the food nutrition label should meet the requirement that the sugar content in every 100 g of solid food or 100 mL of liquid food should not be greater than 0.5%, 5 g; When the sugar content in every 100 g of solid food or 100 mL of liquid food is greater than 0.5 g but not greater than 5 g, it should be considered as "low sugar". According to the General Principles for Beverages (GB/T 10789-2015), common sugar-free beverages on the market mainly include: sugar-free carbonated beverages, sugar-free protein beverages, sugar-free tea beverages, sugar-free coffee beverages, and sugar-free flavored beverages [5-7].

In recent years, the overall overweight and obesity rate among Chinese adults has shown a continuous upward trend. In 2019, the Chinese government issued the "Healthy China 2030" Planning Outline, which has played a leading role in the national health cause. According to the "Report on the Status of Nutrition and Chronic Diseases in Chinese Residents (2020)", half of Chinese adults are overweight and above. Therefore, the government has also proposed reasonable dietary actions, hoping that people can control their sugar intake, especially for children, their intake is clearly divided. With the implementation of the policy, the growth of obesity in adults and children has greatly slowed down. In addition, excessive intake of sucrose will also cause problems such as diabetes. At present, the number of diabetes patients in China has exceeded 100 million, and there is a trend of increase [8-10].

In addition, the prevalence of diabetes among Chinese young people has increased fourfold in the past 20 years. In addition, children often eat sugar, especially on an empty stomach, which can affect the intake and absorption of other foods, leading to nutritional imbalances, and affecting the healthy development and development of the body. According to Nielsen IQ survey data, in addition to meeting basic functional needs such as thirst quenching and satiety, Gen Z also has additional nutritional and emotional needs for beverages and snacks, such as rewarding oneself, socializing, expressing personality, etc. The consumption proportion of emerging beverage categories such as ready-made milk tea and tea, bubble water, fruit flavored water, and soda water is significantly higher than that of non-Gen Z groups.

3. Market analysis

Domestic consumers are eager to attach importance to health. As income levels rise, residents pay more attention to high-level needs such as health based on food and clothing. According to a survey by Ipsos, from 2018 to 2021, Chinese consumers' attention to health increased significantly from 71% to 86%, and families with higher monthly incomes paid more attention to health. The demand for health, which generates multi-dimensional needs such as non-saccharification and quality upgrading, is an important driving force for promoting packaged water, vegetable protein drinks, pure fruit juice, sugar free tea drinks, and other drinks. Non saccharification and low saccharification have become important demand trends. At present, people all over the world are facing difficulties in diabetes and other diseases caused by excessive energy intake; According to the data of IDF, the number of diabetes patients in China reached 100 million in 2015 and is expected to reach 140 million in 2030. According to the survey conducted by Ipsos, among the top five considerations for Chinese consumers' demand for health drinks, the highest proportion of people choosing natural and non-additive beverages is about 36%, which is in line with the characteristics of sugar free beverages. At the same time, 78% of Chinese consumers said they would consider sugar-free beverage products. As consumers' health demands increase and they become less cautious about sugar intake, the

consumption of raw materials is shifting from traditional sugary carbonated beverages, tea drinks, and fruit juices to "non saccharified" beverages.

In addition, the tea industry is gradually entering a mature stage, with a clear trend of non-saccharification. According to Euromonitor International data, the overall scale of the industry will decline in 2020 due to the impact of the COVID-19, and the market size of China's tea beverage industry will be 103.2 billion yuan. In 2021, the market size of China's tea beverage industry will recover to 108.5 billion yuan, with a year-on-year increase of 5.1%.

Sugar free tea is growing rapidly and there is ample room for improvement. According to Frost&Sullivan η, from 2016 to 2020, the retail scale of sugar-free tea drinks reached a CAGR of 37%, and the market share increased from 2% to η%, however, the CAGR of sugary tea is only 1%, indicating a significant trend of non saccharification in the tea industry. In 2021, the penetration rate of sugar-free products in the soft drink market in Japan reached 54%, while that of Ito Garden, a beverage company mainly engaged in tea drinks, and was as high as 75%. In contrast, there is still significant room for improvement in the penetration rate of sugar-free tea drinks in China.

According to the report issued by the Chinese Academy of Sciences, with the enhancement of public health awareness, the market size of sugar free drinks will continue to grow, and is expected to double in the next five years, to meet 20 billion yuan in 2023, as shown in Fig 1 and Fig 2. According to the report of the Chinese Academy of Sciences, "0 preservative" will become the focus of competition for sugar-free beverage brands in the future. Among the 19 mainstream beverages evaluated, some domestic brands have taken the lead in upgrading, and preservatives such as sodium benzoate and potassium sorbate are no longer added to products such as sparkling water.

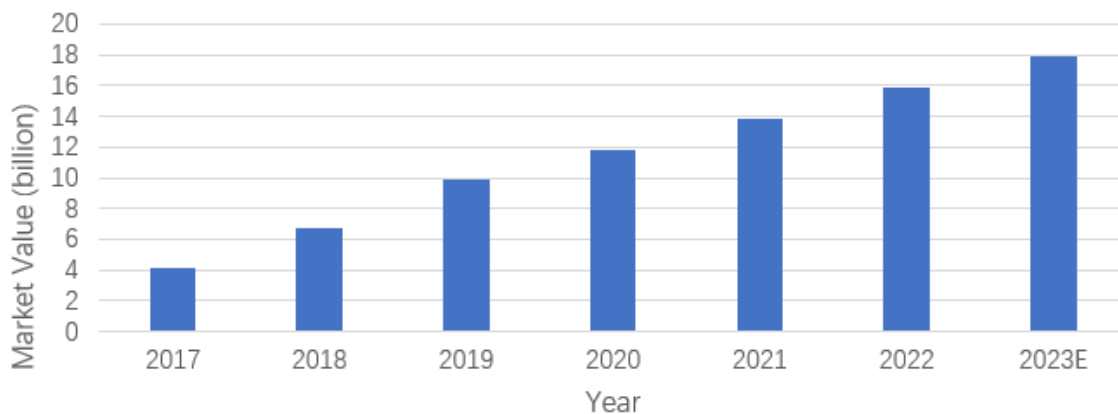


Fig 1. Market Value(Billion RMB).

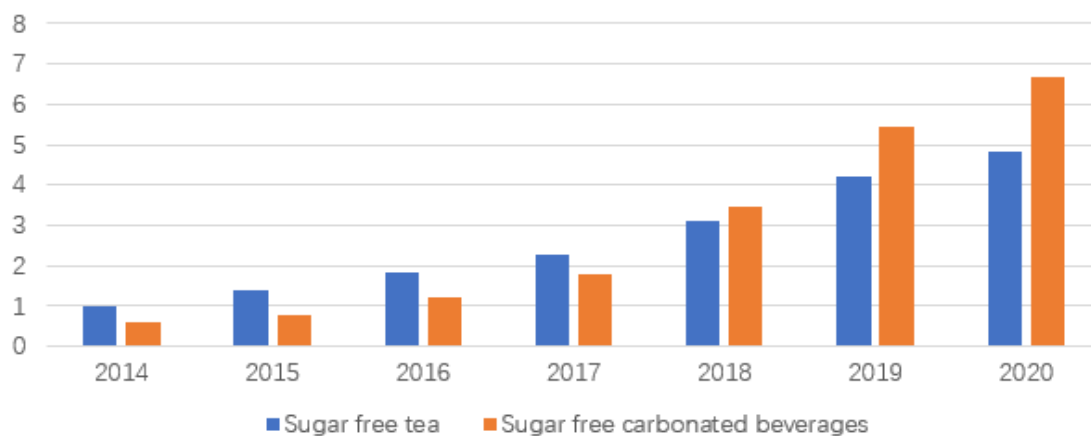


Fig 2. Sugar free beverage segment value (billion).

4. Companies

In recent years, domestic consumers have increased their health awareness, and the sales of sugar-free beverages have increased significantly. According to Nielsen's 2019 data, 82% of Chinese consumers are willing to spend more on health drinks, higher than the global level of 68%. In the domestic carbonated beverage market, the sales share of sugar-free carbonated beverages increased from 2.2% in 2017 to 6.2% in 2019. In the tea beverage market, the market share of sugar free/low sugar tea was 2.4% and 4.7% in 2017 and 2018, respectively, and increased to 15.8% in 2019. In addition, sugar-free or low-sugar products have also been introduced in fields such as soy milk, lactic acid bacteria, and hawthorn beverages.

The local sugar-free beverage brand Yuanqi Forest has rapidly become popular in the past three years. Founded in 2016, Yuanqi Forest is an Internet plus beverage company whose products focus on health and sugar free. According to Pengpai.com, the sales of Yuanqi Forest in the first half of 2020 exceeded 800 million, and the sales in May alone reached 260 million - a figure that exceeds the total sales in 2018. In terms of e-commerce channels, Yuanqi Forest surpassed Coca Cola in sales at the Tmall 618 shopping festival, ranking first in the category of water drinks; On JD's beverage category list, the sales volume of Yuanqi Forest's JD flagship store increased by 38000 yuan, up 61.7% month on month. It's Yuanqi Forest White Peach Soda Bubble Water ranked 12th on the top selling product list with 40000 monthly sales. Yuanqi Forest has completed four rounds of financing, with a valuation of 4 billion yuan. In addition to Yuanqi Forest, there are other sugar-free beverage brands with high sales in China, such as Diet Coca Cola, Zero Coke, Pepsi Extreme, Zero Cal (Zero Cal) Sprite, Fiber Coke, Fiber Sprite, Zero Cal Fanta, and Suntory Oolong Tea, Oriental Leaves, Ito Garden Strong Tea, and Reduced Soda Water.

As the public's awareness of the dangers of sugar has increased, the acceptance of sugar substitutes has also increased, and dietary manufacturers have begun to consider reducing and removing sugar. For example, the beverage giant Coca Cola Company introduced Diet Coke in 1983, and in 2006, it introduced Coke Zero, which is sugar free but has a taste closer to the original flavor. Coca Cola has formed three product lines: classic, diet, and zero degree cola. Both diet cola and zero degree cola use artificial sweeteners such as acesulfame and aspartame to reduce sugar content, promoting sugar-free and low calorie products that better meet the needs of consumers' health and weight loss. Also, as a catfish in the beverage industry, the launch of Yuanqi Forest's "0 sugar" beverage has rapidly promoted the market development of sugar-free beverages. This phenomenon is not purely driven by the concept of "zero sugar", as many companies such as Coca Cola have launched sugar-free beverage brands such as "zero alcohol" and "diet", which have been promoted in the market for many years; We believe that, on the one hand, its "health" promotional perspective is in line with the public's pursuit of health, on the other hand, its aggressive promotional approach has also increased public awareness, and "Generation Z" young people are more willing to accept new things, and the launch of "online celebrity" products is more in line with the preferences of modern young people.

5. Conclusion

In recent years, with the improvement of consumption levels, consumer demand for beverages has diversified. Many people pursue a variety of tastes to achieve a healthy demand of zero fat, zero sugar, and zero calorie. However, many companies fish in troubled waters and resort to the concept of zero sugar for false sales, disrupting the market. In addition, whether sugar free beverages are truly healthy remains to be tested, but it is undeniable that as people attach importance to health, sugar free beverages will become irreversible beverages and occupy an important market share.

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