

R & D and Quality Control of New Tea Drinks

Liu,Nixia Yuan,Wei

Zhejiang Shuren University, Hangzhou, Zhejiang, 310058, China

Abstract: In recent years, the new tea market has developed vigorously. With the wave of consumption upgrading, consumers' demand for high-quality and diversified taste tea drinks continues to grow. This trend intensifies the industry competition, and also urges enterprises to increase investment in product research and development to meet more diversified and personalized consumer demand. In view of this, this paper analyzes the characteristics of research and development of new tea drinks, and gives specific research and development strategies and quality control.

Keywords: New tea drinks; Product R&D; Quality control

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The new tea market is booming, and it is gradually infiltrating into people's daily life from the small shops on the corner of shopping malls to the streets and alleys of the city. Not only as a choice to quench thirst, but also as a cultural symbol symbolizing modern lifestyle. With the wave of consumption upgrading sweeping across the country, people's demand for drinks is no longer limited to its basic functions, but pays more attention to the concept of taste enjoyment and health, and expects to feel creativity and freshness from a cup of tea. Therefore, the new tea industry is facing unprecedented challenges and opportunities in product development and quality control.

1. Characteristics of New Tea Drinks Research and Development

(1) Innovation

In the highly competitive tea market, innovation has become the core driving force of brand development. It determines whether the product can stand out from the dazzling array of goods, which is directly related to whether the brand can continuously attract consumers' attention and win loyalty. This innovation is not only reflected in the technical or material level, but also involves cultural integration and aesthetic experience. For example, in terms of taste, new tea combines traditional elements with modern creativity by crossing geographical and cultural boundaries, bringing consumers a refreshing sensory experience^[1]. Take oolong tea as an example, this classic drink glows with new vitality after being mixed with tropical fruits such as lemon and pineapple. A simple cup of tea has a layered taste because of its unique formula, which not only meets the expectations of young consumers for "early adopters", but also reinterprets traditional tea culture in a modern and international new form.

(2) Health orientation

With the gradual improvement of health awareness in modern society, "eating healthily" has become the core appeal of many consumers in their daily lives. Under this trend, the research and development of new tea drinks is transforming to a healthy direction in an all-round way to meet the increasingly critical needs of the market. Among

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About the Author

Liu,Nixia (2005-), female, Han ethnicity, native place: Yongxin Ji'an, student, undergraduate, major direction: international trade and tea culture. Yuan,Wei (1981-), female, Han ethnicity, native place: Anji, Huzhou, title: laboratory technician, master's degree research direction: tea art, world tea drinking customs.

them, "low sugar" has developed into an important key word for new tea innovation. Whether it's consumers who pursue minimal calorie intake or special groups who need to strictly control blood sugar levels, the sensitivity to added sugar content has been widespread. In order to comply with this consumption trend, some brands began to try to use natural sweeteners such as honey, coconut sugar and erythritol instead of traditional white sugar. These substitutes can effectively reduce calories and provide a richer and more natural taste experience.

(3) Consumer participation

Using social media platform to collect user feedback has become a key strategy for many new tea brands to optimize product formulas. For example, when a milk tea brand launches a limited edition fruit bubble water, the brand will quickly track relevant comments and data to evaluate the market reaction. This method of adjustment based on real-time feedback makes the product more suitable for the public's taste, shortens the research and development cycle, and wins market opportunities for enterprises. However, this strategy is not only to cater to the "hot" trend, but more importantly, it embodies a new cooperative relationship that respects the voice of consumers and enhances the interactive experience. It is this two-way communication that makes the brand image more close to the people, and at the same time gives consumers more emotional participation in the purchase decision.

2. New Tea Drinks R&D and Quality Control Strategy

(1) Conduct comprehensive market research

Market research is the key foundation for the research and development of new tea drinks, and its core goal is to deeply understand consumer demand, taste preference and industry development trend. In this process, it is necessary not only to understand the target audience through data analysis, but also to explore the consumption trends and psychological demands hidden behind the numbers. For middle-aged users who are concerned about health problems, labels such as "low sugar" and "no additives" have become an important criterion for judging the value of products. This diversified demand shows that new tea brands need to be accurately positioned and flexibly adjusted to meet different levels of consumption expectations ^[2].

At the same time, in-depth analysis of competing products. After studying successful cases, we can find that they are usually good at combining regional cultural characteristics to launch explosions. For example, a brand's new fruit tea developed through local fruits has opened up the local market and triggered a wide range of topic discussions; In contrast, some failure cases often ignore the habits of local consumers, leading to "acclimatization". Therefore, new product development not only needs to learn from successful experience, but also needs to avoid falling into the trap of homogenization competition.

(2) Creative Generation

After in-depth identification and analysis of market demand, the creative generation stage shoulders the core task of transforming this information into specific product ideas. This process requires close cooperation among designers, R&D experts and marketers, and also requires them to inspire breakthrough innovative ideas with keen insight. From the point of view of teamwork, brainstorming is an indispensable method, which can encourage professionals in different fields to explore potential possibilities through point of view collision.

Although bold innovation is the key driving force to promote the generation of ideas, it is equally important to achieve feasibility. In practice, every new idea needs to undergo rigorous evaluation to ensure that it can smoothly enter the follow-up R&D and production links. For example, if a rare fruit is selected as the core ingredient of tea, we must comprehensively consider the stability of supply chain and cost control, otherwise even if the concept is attractive, it may not really land because of the difficulty in implementation.

(3) Formula research

Formulation research is an indispensable part of transforming creativity into practical products, and it is also an important cornerstone to determine the success or failure of new tea. In this process, it is necessary not only to accurately control the proportion of ingredients, but also to take into account the richness and stability of taste levels. The material selection stage is particularly critical. For example, the quality of new tea based on matcha depends largely on the purity and source of matcha powder itself. At the same time, it is necessary to adjust the sweetness skillfully to meet the taste preferences of different consumer groups, and explore the collocation methods of dairy products to inject silky texture into the products.

In the process test, the new tea making process under various conditions is repeatedly verified by laboratory simulation technology, which can effectively ensure that the final product can maintain consistent and satisfactory quality performance in hot summer or cold winter. For example, precise adjustment of mixing rate and temperature change not only improves production efficiency, but also lays a solid foundation for subsequent large-scale production. In addition, in the face of the general trend of increasing health awareness in modern society, the R&D team gradually pays attention to the strengthening of functionality-for example, by reducing sugar content and introducing plant-based milk sources, to provide consumers with delicious and healthy new choices^[3].

(4) Sample making

Formula research is an important link in the process of transforming ideas into actual products, and it is also the key cornerstone to determine the success of new tea. In this process, it is particularly important to accurately control the proportion of ingredients, and the richness and stability of taste levels can not be ignored.

The material selection stage is particularly critical. For example, the quality of new tea based on matcha depends largely on the purity and source of matcha powder. At the same time, it is necessary to adjust the sweetness reasonably to meet the taste preferences of different consumer groups, and explore the collocation methods of dairy products to give the products a smooth texture.

In the process test, the laboratory simulation technology is used to repeatedly verify the production process of new tea under various conditions, which can effectively ensure that the final product can maintain consistent quality performance in hot summer or cold winter. In addition, in the face of the general trend of increasing health awareness in modern society, the R&D team began to pay more attention to the strengthening of functionality-for example, by reducing the sugar content and introducing plant-based milk sources to provide consumers with new choices that are both delicious and healthy.

(5) Optimization and improvement

After comprehensive feedback from many parties, the new tea enters the stage of optimization and improvement, which is the key link to determine the success or failure of the product. Based on the previous data analysis, several parameters need to be finely adjusted to find the best balance point and ensure that the product can meet the needs of consumers.

In addition, improving production efficiency is one of the core objectives in the optimization process. By introducing intelligent equipment or optimizing process flow, the production cycle can be effectively shortened, the cost can be reduced, and the foundation for the large-scale expansion of enterprises can be laid. According to the seasonal changes, the timely launch of limited edition products can not only stimulate the freshness of consumers, but also enhance the brand popularity by using the scarcity effect. For example, in the midsummer season, it is easier to attract young consumers by launching a series of fruit teas with cool taste; In winter, we can develop new products with the theme of warm heart and nourishing to meet the psychological needs of consumers in different scenarios.

3. Conclusion

To sum up, to sum up, the research and development of new tea drinks is a complex and systematic work, covering the whole chain quality control from raw material selection to final product. Optimizing high-quality raw materials is the basis to ensure the safety and reliability of products. In terms of production technology, it is necessary to combine traditional techniques with modern technology to achieve the best balance between taste and nutritional value. In addition, sensory testing not only comprehensively examines the intuitive characteristics of the product, such as appearance, smell and taste, but also provides the R&D team with important feedback information on consumer demand.

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