



The Breakthrough Path of Plant-Based Yogurt: Building Sustainable Production Model and Upgrading Consumption Ecosystem

Company/Organization

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Abstract

In a market dominated by animal dairy products, creating a competitive plant-based yogurt faces two key challenges: overcoming technical bottlenecks in product development and preservation, while shifting consumer perception toward plant-based alternatives. In 2020, Noix FOODS (TIANJIN) Co., Ltd. (hereinafter referred to as JOOMA) identified this market gap and achieved a breakthrough from zero to one through an innovation-driven and technology-led approach. The company successfully developed a range of plant-based yogurts that are natural, vegan, high-quality, and sustainable. Beyond product innovation, it also established sustainable production models, precisely addressed consumer demands, and actively promoted plant-based eating. Through these efforts, JOOMA has set a new benchmark for the industry.

Keywords

plant-based dairy, product innovation, sustainable production, consumer engagement

This report was completed in 2023 when the author was an intern at GFIC. GFIC focuses on accelerating the development of alternative protein food innovation in China by serving as a platform of service, resources and knowledge for the relevant industries.

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Case Introduction

Background

A report from the Good Food Institute, a think tank focusing on global alternative protein food innovation^[1], reveals that the global retail market for plant-based foods reached \$8 billion in 2022, with plant-based dairy accounting for \$2.8 billion. In this vast market, plant-based dairy, as a sub-market with significant growth potential, faces a crucial R&D challenges in meeting quality standards. Particularly, the production and transportation of plant-based yogurts require specialized technology and equipment to ensure taste, texture, and nutrition comparable to traditional yogurt. In China, the plant-based yogurt market is still in its early stages.

In today's fast-paced life, consumers are increasingly focused on their health and dietary choices, leading to a surge in plant-based products in the market. However, consumer understanding and acceptance of the plant-

based concept still need improvement. Educating consumers about the benefits of plant-based foods is crucial for the development of the plant-based yogurt market. Another challenge is achieving sustainability throughout the entire supply chain, involving multiple aspects such as ingredient selection, energy conservation and emission reduction in production, and degradable packaging. Governments and social sectors are highly concerned about this, expecting the food industry to adopt more eco-friendly and sustainable production models.

In this context, JOOMA demonstrates exemplary practices. Through creating innovative, nutritious products, advancing supply-chain sustainability, and implementing consumer education initiatives, JOOMA provides actional pathways for China's plant-based market development.

Case story

Product Development and Quality Assurance

From the outset, JOOMA prioritized product quality. The team recognized the advantages of plant-based ingredients, for instance, almonds are rich in vitamin E, unsaturated fatty acids, and dietary fiber, which could enhance the nutritional value of regular yogurt remarkably. Additionally, the production process of plant-based proteins, compared to animal proteins, avoids secondary conversion, shortening supply chains while improving safety and reliability. However, the market research reveals that although consumers are in favor of nutrition, safety, and sustainability,

taste remains the key factor in their purchasing decisions. Thus, it only makes sense to further communicate the nutritional benefits of a "sustainable diet" with consumers after addressing the issues of taste and texture.

Therefore, JOOMA emphasized the selection of ingredients, and hand-selected high-quality almonds sourced from California, USA, as the main ingredient. Collaborating with Fraunhofer Institute, Europe's largest applied science research institute based in Germany, JOOMA developed fermentation processes, optimized product formulas, and solved the challenge of natural thickening that conventional plant-based yogurts face. This achievement ensures that its products

do not contain added thickeners, artificial flavors, colors, or preservatives. To ensure high product quality, JOOMA used precision production equipment imported from Switzerland, French-imported strains, and fully automated digital monitoring for the fermentation process.

Sustainable Development and Environmental Practices

JOOMA's entire production chain adheres to sustainable principles. Tianjin plants improve high-insulation and intelligent temperature control technology for efficient energy management and are equipped with a self-owned wastewater treatment system. C-end logistics adopt the principle of regional warehouses plus nearby distribution to minimize carbon emissions during delivery. Product packaging is 100% degradable to reduce environmental impact. Notably, JOOMA eliminates filtering processes in its production, achieving zero waste of ingredients. Taking almond-based products as an example, whole almonds are ground to particles of around 20 micrometers, giving the yogurt a smooth texture without a grainy feel during consumption. Similar taste to traditional dairy products and a variety of flavors (as of August 2022, JOOMA offers eight flavors, including almond and coconut) give consumers more choices and enhance consumer acceptance, stimulating curiosity and understanding of healthy and sustainable products. Accordingly, JOOMA received the Experts' Choice Award from the Hong Kong Quality Veggie Awards in 2023 and was the only plant-based yogurt nominated for the 2022 FBIF WOW FOOD AWARD.

Consumer Engagement and Market Strategy

JOOMA understands that consumers are their valuable asset. To make more consumers aware of their products and the philosophy of sustainability,

JOOMA adopts diverse strategies. They promote the concept of low-carbon and plant-based diets on social media such as the WeChat official account, Xiaohongshu (Rednote), Zhihu, and Instagram, and collaborates with vegetarian media and brand fans to develop a plant-based baking menu, influencing more people to try plant-based diets.

Simultaneously, JOOMA recognizes the opportunities for deeper engagement and conversion offline. JOOMA's products used to be placed on shelves alongside traditional milk and yogurt. To stand out among numerous products, JOOMA redesigned the packaging. The most notable change was adjusting the packaging's base color from light to black and prominently adding the "plant-based" logo. This new packaging design stands out on the shelves, quickly grabbing consumers' attention.

JOOMA also collaborated with offline import supermarkets such as Jenny Lou and April Gourmet, equipped with promoters to introduce and explain products to consumers, conveying more product information. Additionally, they conducted a series of community activities, including advocating the concepts of a "low-carbon diet" and "food waste reduction" in collaboration with non-profit organizations. These offline activities not only effectively attract consumers but also provide valuable feedback for JOOMA's product optimization and market strategy.

Group Expansion and Brand Development

The unexpected encounter with the "Baoma" (mothers with babies) community brought JOOMA many unforeseen insights. Initially, JOOMA's target consumer groups were primarily focused on vegans, expatriates familiar with plant-based

foods, and young individuals who enjoy trying new things. However, during the early stages of the product launch, a Baoma consumer provided feedback that she chose JOOMA's plant-based yogurt because her child had allergic reactions to many dairy products. Surprisingly, her child's digestive system fully accepted this yogurt without any allergic or digestive issues. Baoma then promoted the product within her community, leading to a ripple effect. Over 7,000 Baomas began regularly group-buying and repurchasing JOOMA's plant-based yogurt. This product helped this community overcome long-standing limitations in meeting nutritional needs. Previously, these children could only bring food prepared by their mothers when going out, but now they can enjoy convenient packaged food like other children. This story is heartening and fulfilling, demonstrating that by focusing on solving problems and providing beneficial products, positive impacts can be made on people's lives, leading to successful brand promotion.

With increasing consumer familiarity and acceptance of coconut flavor, JOOMA took proactive action by launching a coconut-based plant-based yogurt in 2022. The taste closely resembles milk and traditional yogurt, aiming to reach a broader consumer base. Furthermore, JOOMA innovatively introduces novel flavors such

as avocado, kiwi, and calamansi, successfully attracting consumers seeking unique taste experiences. At this stage, JOOMA also began establishing partnerships with mainstream supermarkets like Olé. These supermarkets cover a wide range of consumers, including the potential consumer groups that JOOMA aims to influence and attract. JOOMA recognizes that integrating into mainstream channels is crucial for reaching more consumers and exerting greater influence on health and sustainability topics.

From the initiation of production to the product's market launch and user fission, JOOMA achieved this milestone in just under one year. Two notable examples include the spontaneous recommendation of JOOMA's products by vegan celebrity Zeng Li in her daily videos, expanding awareness among consumers. Additionally, some partners and loyal consumers spontaneously recommended JOOMA, facilitating the connection with companies such as the Zhejiang Provincial Government canteens and international high schools in Beijing. Leveraging product advantages, celebrity endorsements, and partner support, JOOMA successfully created a powerful consumer fission growth effect: attracting and influencing more consumers through the spontaneous promotion of high-quality products, driving the entire industry towards plant-based diets and sustainable development.

Addressing the Good Food Pledge



Plant Forward:

JOOMA's plant-based yogurt production process entirely phases out animal components or animal experiments during production process, fundamentally avoiding the animal farming stage

in conventional dairy products and ensuring a safer and more reliable protein source without artificial hormones.



Healthy Eating:

JOOMA's plant-based yogurt uses almond, coconuts, ect. as the main ingredients, with carefully designed formulas and nutritional components. Moreover, JOOMA's plant-based yogurt avoids thickeners, artificial flavors, colors, and preservatives, maintaining the product's natural characteristics.



Waste Reduction:

No filtration process is applied during production, enabling zero raw material waste.

Results and Impacts

- **Product Quality:** JOOMA pioneered China's almond-based yogurt with the most diverse in flavors among domestic plant-based yogurt brands. JOOMA gives delicate taste and rich nutrition to its products and meet consumers' health needs.
- **Energy Conservation and Emission Reduction:** JOOMA implements sustainability principles throughout the entire production chain, taking a series of measures to achieve energy conservation and emission reduction. Compared with traditional yogurt, JOOMA plant-based yogurt could reduce carbon emissions by 75%, land use by 90%, and water consumption by 38%.
- **Consumer Outreach:** Through innovative marketing strategies, JOOMA's plant-based yogurt has gained widespread influence, successfully building a reputation for safety, health, and sustainability, and triggering consumer fission growth.

Future prospect

One of the main challenges JOOMA faces is in the ingredient supply chain. Due to strict product quality standards, the company currently cannot entirely avoid dependence on imports for ingredients. This implies higher transportation costs and potential supply chain risks. To address this issue, JOOMA is attempting to transit from a global supply chain to a diversified and robust domestic one.

Looking to the future, JOOMA's vision goes beyond plant-based yogurt. Through its own technology and processes, the company aims to ferment more types of plant-based ingredients. At the end of 2022, JOOMA launched a concentrated almond milk with plans to develop more types of plant-based healthy foods. Additionally, JOOMA aspires to advocate the concept of a low-carbon diet in a sustainable ecosystem through collaboration and synergy throughout the entire industry chain and consumers.

Discussion

JOOMA's success shows that high-quality products are the key to attracting and further reaching consumers. The core value of sustainable development should permeate every aspect of a company's operations.

This case inspires us to ponder:

- Amidst diverse consumer demands, how can food enterprises develop high-quality products that meet consumers' needs?
- How to integrate sustainable values into the company's development strategy, and ensure implementation throughout the entire production chain?
- How to further reach and influence consumers through diverse online and offline channels and partnerships?

Case Analysis

Developing High-Quality Products to Meet Consumers' Demands

In the backdrop of diverse consumer demands, developing high-quality products that satisfy consumers' needs is a challenge faced by every enterprise. In this case, JOOMA's success embeds in applying design thinking, prioritizing consumers and focusing on problem-solving. Firstly, they conducted extensive market research to deeply understand consumer needs and pain points, leading to a product-centric positioning (problem definition). Secondly, in response to the challenge of viscosity in plant-based yogurt, they collaborated with Fraunhofer Institute in Germany to develop a process (innovative solution). After the product launched, they further improved packaging and flavors based on feedback (testing, collecting feedback and product iteration). However, meeting the diverse needs of consumers is an ongoing task that requires continuous learning, research, and innovation. In this regard, JOOMA has started expanding its diverse product line, marked by the almond-concentrated milk launched at the end of 2022.

Integration of Sustainable Values into the Company's Development Strategy

In JOOMA's case, the brand successfully integrated sustainable values into its development strategy, ensuring implementation at every stage of the production chain. Michael Porter's Value Chain model divides business activities into primary and support activities. Primary activities include inbound logistics, operations, outbound logistics, marketing and sales, and after sales service, directly creating value for which customers are willing to pay. Support activities include

infrastructure, human resources management, technology development (R&D), and procurement, supporting the smooth operation of primary activities.

Sustainability is a crucial principle throughout the entire JOOMA's production chain. Compared to traditional yogurt, JOOMA's plant-based yogurt production can reduce carbon emissions by 75%, land use by 90%, and water consumption by 38%^[2]. This not only demonstrates the company's commitment to sustainability at every step but also helps the brand gain consumers' trust and positive reviews.

However, integrating sustainable values into the company's development strategy is not easy and requires investment and changes in various aspects. Faced with such challenges, companies can collaborate with academic institutes to calculate carbon emissions throughout the entire production chain, and cooperate with relevant environmental organizations to carry out more environmental projects and activities to fulfill corporate social responsibility and increase public trust. Enterprises can also innovate sustainable development models, such as optimizing supply chain management by introducing more eco-friendly ingredients procurement methods and promoting sustainable production practices among suppliers. Publicizing the company's sustainable development achievements is equally important for the brand establishment and the communication of belief.

Further Reaching and Influencing Consumers through Diverse Online and Offline Channels and Partnerships

Omni-channel marketing integrates online/offline touchpoints, providing a seamless customer experience and offering a unified and high-quality experience regardless of whether customers shop via computer, phone, or physical store. In JOOMA's case, this omni-channel marketing strategy is evident. They not only self-promote products through their website but also establish offline channels with large retailers, and engage in a series of online and offline interactive events with communities and non-profit organizations. The reach to the Baoma community indicates that

there are many potential consumer groups for plant-based yogurt, therefore, a direction for future attention can be focused on data analysis to precisely locate consumers' private traffic and collaborative filtering. At the same time, JOOMA can continue to share the concept of a sustainable lifestyle, promote a plant-based diet, and strengthen consumers sense of belonging. Interactive activities such as product reviews and design suggestions can also involve consumers more deeply in the brand's development, and enhance customers' coherence.

Dimensional analysis: levers of change employed in the case

Food production and supply	Production	JOOMA places a high emphasis on the quality of the product itself, pursuing excellence at every stage, from hand-selected ingredients to processes and formulations, and then to production facilities and technology.
	Conservation	Compared to traditional yogurt that requires animal husbandry, plant-based yogurt production can significantly reduce carbon emissions and environmental impact. In addition, JOOMA is making continuous efforts to fulfill its commitment to environmental friendliness: zero-waste processing of raw materials, efficient energy management of production facilities, the principles of centralized regional warehouses with nearby distribution, and 100% biodegradable packaging materials.
Food environment	Policies and Regulations	In 2022, JOOMA became a significant co-creator in China's Vegan Food Standard and Certification Project. JOOMA has effectively promoted the standardization and marketization of the vegan food industry in China, while also clarifying the standard direction for its product research, development and production.
	Accessibility	JOOMA makes its products reach a wide range of customers through multi-channel cooperation, such as supermarkets,

		restaurants, hotels, fitness centers, e-commerce platforms, etc.).
Food demand	Information and education	Building on its high-quality products, JOOMA actively promotes low-carbon plant-based diet concept in social media and engages in various public welfare activities. These initiatives improve consumers' awareness and enhance consumer trust in its brand.
	Product experience	JOOMA prioritizes R&D to drive product innovation, offering diverse products with abundant and fresh flavor, while also collecting consumer feedback through various online and offline channels in real-time.

Addressing the pillars of sustainable development

PEOPLE Nourishing everyone for health and wellbeing	JOOMA plant-based yogurt is made from pure and natural plant ingredients, excluding animal hormones, lactose, cholesterol, and gluten, which is beneficial to human health. It provides a healthy nutritional choice for lactose-intolerant individuals.
PLANET Producing in harmony with nature	JOOMA implements sustainability principles throughout the entire production chain. Compared to traditional yogurt, JOOMA's plant-based yogurt production can reduce environmental impact remarkably, such as carbon emissions, land use, and water consumption.



Many new companies outsource production to OEMs from the start, focusing solely on marketing. While marketing is important, in the long run, excellent technology is even more crucial. We aspire to possess proprietary technology.

Dr. Stefan Schmale
Founder of NOIX Foods (Tianjin) Co., Ltd.

References

- [1] GFI. 2023. 2022 Plant-Based State of the Industry Report. <https://gfi.org/wp-content/uploads/2023/01/2022-Plant-Based-State-of-the-Industry-Report-1-1.pdf>
- [2] Guan Yu Lim. 2021. "Excellent Technology": Jooma, the Chinese plant-based brand, outlines plans for regional expansion, brand partnerships, and product extension. <https://www.foodnavigator-asia.com/Article/2021/11/15/Jooma>