

Branding Lake Kasumigaura's icefish as a branded product by utilizing AI

AI Sakana Project

branding marketing process innovation business creation organizational reform



Issues facing the icefish

Lake Kasumigaura ranks second in Japan for the amount of icefish caught, a fish with a slender, transparent body. Icefish caught in Lake Kasumigaura have long been prized as a gift to Tokugawa Ieyasu, Shogun of the Edo Period. However, due to a shrinking domestic market and the lack of a freshwater fish market around Lake Kasumigaura, sales channels are limited, and low prices have become the norm. As a result, management had to rely on the volume of fish caught, making the sustainable and effective use of fishery resources a challenge. In addition, the decline in the number of people employed in the fishing industry due to the aging of fishermen and a shortage of successors is also a serious issue. There was also an urgent need to utilize technology to pass on the skills of experienced fishermen to future generations.



Developing freshness-evaluation AI to brand fresh icefish

To support this project, we visited the site many times and accompanied them on their weekly icefish fishing expeditions. We had the opportunity to hear from the fishermen about their desire to deliver delicious icefish to as many people as possible, and to experience the current state of the icefish fishing industry as an "insider". What became apparent from this was that freshness was the key to adding greater value to icefish. Icefish are very delicate fish, and fishermen take measures to keep them fresh, such as adjusting the time they drag their nets and how they handle the fish after they are landed. However, at present there are no objective indicators to evaluate these efforts, and these are not reflected in the price. We thought that if we could evaluate the fishermen's skills using the index of freshness when shipping raw icefish as refrigerated goods, it would lead to increased value and the protection of marine resources, so we started developing a system to objectively evaluate the freshness of icefish. With the cooperation of local fishermen, we trained AI based on approximately 5,000 images and built a freshness determination system.



"The selling price has increased by 5 times! Also adopted by Michelin-starred restaurants."

Using the AI-based system, we graded raw shirao freshness in four tiers—S, A, B, and C—and established a brand. After opening sales channels to high-end restaurants, including Michelin-starred establishments, adoption was secured and sales prices rose to more than five times previous levels. This has made it realistic to move away from management models reliant on catch volume. The project has attracted attention as a case of digital transformation (DX) in primary industry led by a startup in a regional setting. A joint press conference with Namegata City, Ibaraki Prefecture, was covered widely by the media, generating exposure equivalent to over ¥60 million in advertising value, contributing to the brand elevation of Kasumigaura shirao. From fiscal 2024, we launched a Brand Center to provide end-to-end support, including product naming and package design. We are also exploring partnerships with fisheries cooperatives, local companies, and the Regional Revitalization Cooperation Corps to build a new organizational framework.

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