



DIGITALIZING SHRIMP FARMING WITH A SINGLE APP

Digitalizing shrimp farms' workflows with an app that offers functionalities for managing activities around the shrimp farming ecosystem, such as task management, resource monitoring, data analysis, and ordering shrimp nutrition.

Shrimp farming is a growing industry, yet still mostly reliant on analogous and time-consuming processes. Suppliers for shrimp nutrition play an important role in the value chain of aquaculture farming.

As digitalization partner, ILI.DIGITAL created an app for a big shrimp nutrition supplier: a mobile application to manage, perform and measure activities around the shrimp farming ecosystem. The project involved experts in strategy, design, development, and psychology.

ANALYZING THE PAIN POINTS

Instead of investing a lot of resources in paperwork, shrimp farmers needed a way to focus on their core business again. Therefore, a solution was required to support farmers and their farmworkers in their daily work.

The status quo at the shrimp farms involved in our research was defined by the following pain points:

- Workforce scheduling and task management require a lot of strategic effort
- Data & analytics must be monitored regularly
- Resources must permanently be tracked
- Financial information must be administered

This provided an ideal opportunity for re-engineering and optimizing processes to increase productivity and quality by creating a digital solution.



A USER-CENTERED DIGITAL SOLUTION

Pursuing the aim of enabling productivity and quality by providing access to highly specific knowledge and tools, the app includes the following aspects:

Simple information access

Using the app, it is possible to collect, store and analyze data from shrimp production, e.g., environmental factors or shrimp health data.

Efficient task management

Task management is facilitated: Farm owners can delegate and track daily tasks on their farm in real-time.

Fact-based decision-making

Knowledge is centrally stored to make decisions based on real data.

E-Commerce

An implemented online shop to quickly order commodities for shrimp farming, e.g., shrimp food or nutritional supplements.

Gamification

A gamified experience encourages the farmworkers to complete tasks that would translate to a more efficient farm management.



BEHAVIORAL ANALYSIS AND GAMIFICATION AS PRODUCTIVITY ENABLERS

To increase the farmworkers' productivity, the app is based on human behavior. Accordingly, it is enriched with gamification elements that foster motivation.

Customization

User profiles are customizable so that users can identify with their avatars.

Motivation

A progress bar shows the status of task completion which fosters the will to fulfill tasks.

Competition

While completing their daily tasks, users can compete with other farms in rankings.

Reward

A reward system for successfully achieved farm work milestones is implemented.

IMPACT

Today, the addressed shrimp farming eco-system benefits from enhanced business processes which enable simplified workflows and a higher level of productivity.

With support from ILI.DIGITAL, shrimp farms have digitalized their daily work. This means farmworkers enjoy more efficient task completion enriched by gamified app elements. Also, the automation of administrative tasks has freed up significant capacity in the completion of core tasks.

Moreover, for the shrimp nutrition supplier, the e-commerce integration thus realized an even closer integration into the value chain. They can now directly sell their shrimp nutrition products to farms.



KEY SUCCESS FACTORS

ILI.DIGITAL focused on three aspects to make the app a success:

Human-centered approach

Identified pain points were merged with knowledge about human behavior and connected with gamification to meet the users' requirements.

Workflow digitalization

By providing relating functionalities, administrative tasks are automated by the app, and shrimp farms can focus on their core business again.

Digital intelligence

With the app, farmers have access to real-time data to support their decision-making. This way, they are able to analyze and optimize their profitability more effectively.

EXPERTS AT ILI.DIGITAL



PETER //
Gamification
Expert



VINICIUS //
COO



YERIM //
Design Researcher



BILAL //
CTO

PROJECT DURATION

ILI.DIGITAL follows a clear strategy which exactly defines how long single processes take. Therefore, the time required for a project is easy to estimate.



Identifying opportunities and creating a portfolio of strategically evaluated value propositions for the next 3 to 5 years



Value proposition, value creation, and value capturing - designing disruptive business models ready to be implemented



Creating tangible and viable prototypes and making the created business models future-proof and disrupting the current business model



Transforming validated prototypes into real-world solutions and launching minimal lovable products



Scaling the digital business models to create new revenue streams and to ensure success in the future