SAUDER School of Business
UNIVERSITY OF BRITISH COLUMBIA

COE CENTRE FOR OPERATIONS EXCELLENCE

Centre for Operations Excellence

Optimal Catch Allocation for a Commercial Fishing Company

Client Profile

The client is a Vancouver-based company with operations in nearly all levels of the commercial fishing industry, from supply through distribution.

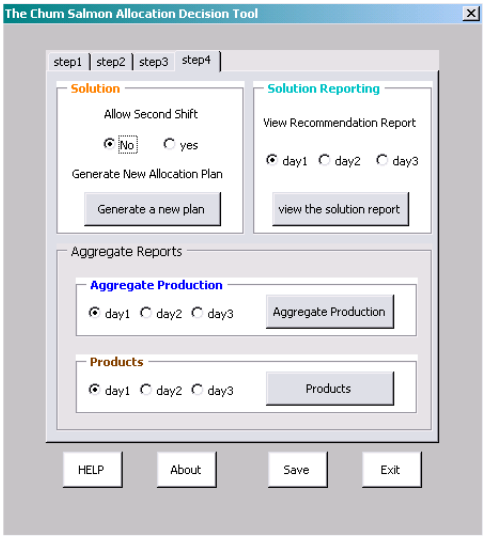
Business Challenge

In the company's processing facilities, freshly caught Pacific salmon are prepared for sale to institutional buyers and end consumers. As its operations evolved, however, the decision making for allocating a catch of salmon amongst a set of final products became more complex and time-consuming. The client sought to improve their short-term decision making process, and to move on from an expert/experienced-based knowledge pool to a standardized decision-making platform. It asked the Centre for Operations Excellence (COE) to develop an automated customizable decision support tool to allocate the catch among the products in such a manner that the profit potential of the catch is maximized. Additional goals of the project included: "what-if" planning, reduction of decision-making time, and building a practical and innovative decision support tool.

Value Delivered

1. The COE developed optimization models to assign the catch to different possible processes and generate a wide variety of end products, while maximizing profits and optimally allocating resources.
2. The COE also developed the Catch Allocation Tool, a standalone software built for the end-users to assist in their daily decision-making and increase their profitability.

The COE Approach



Catch allocation was configured optimally using a linear program. The client required software that was accessible and easy to use for the end-users, as they needed to create a daily production schedule and catch allocation with different input parameters. The COE developed a program called the Catch Allocation Tool, a decision support tool that allowed users to enter decision-making inputs to generate a production schedule. The user interface was designed according to the client's preferences.

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