

Milestones

Both sub-teams strived to achieve the goals they set forth in the beginning of the semester, as the points below demonstrate.

Business Team

- Conduct market research using improved survey
- Formulate conceptual positioning chart for the Delta Hook using present market offerings
- Design promotional strategy including optimal mediums and sample advertisements
- Determine Sparrowhawk's supply chain
- Decide on optimal price for the Delta Hook (individual hook)
- Formulate financial statements for Sparrowhawk, including a Statement of Cash flows, and Break Even Analysis

Product Development Team

- Refining the geometry of the hooks and shanks
- Determining the number of pieces in design
- Determining optimal hook size
- Selecting the appropriate hook material
- Identifying material treatment methods
- Construct mock-ups

Recommendations

Both the Product Development team and the Business team have made tremendous strides this semester and feel confident they have provided next semesters students with solid information upon which they may build and move forward. As to where, our recommendations are as follows:

- Determine the true cost of manufacturing the Delta Hook
- Contact likely manufacturers both in China and the U.S.
- Test prototype in fishing situations
- Establish an on-campus work space for construction and testing purposes
- Determine a method of rapid production for Delta Hooks, so destructive testing may be conducted
- Explore the capabilities of swaging in regards to flattening the shank
- Go on a team fishing trip to strengthen team and gain experience



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Problem Statement

I PRO 358 was created to assist

Sparrowhawk LLC, a startup company based out of Glenview, IL, in developing its revolutionary product the Delta Hook, as well as to offer guidance on any business issues the company may encounter. The Delta Hook possesses features that allow it to a). Be safer for both the angler and the fish; b). Avoid snags; c). More securely hold hooked fish, increasing the likely hood of catching them.

Injuries



Snagging



Catch and Hold



Objectives

During the Fall 2009 semester I PRO 358 planned to construct a working prototype of the Delta Hook, as well as elaborate upon the business model for Sparrowhawk LLC outlined by the previous semester's team. The I PRO was split into two groups, the Product Development team and the Business team, who worked individually and side by side to accomplish the goals outlined at the beginning of the semester.

Product Development Team Objectives

- Explore different design possibilities to create 4 to 7 mock-ups that incorporate safety, snag-proof capabilities, and strong holding abilities
- Refining the geometry of the hooks and shanks
- Determining the total number of pieces in design (base, shanks, hooks)
- Selecting the appropriate material for the Delta Hook
- Identifying material treatment methods (e.g. carburizing, quenching and tempering, chrome plating)
- Test mock-ups using finite element analysis along with experimental testing series developed last semester
- Determine proper manufacturing processes for final production
- Have a working final prototype by the end of the semester



Business Team Objectives

- To conduct in-depth research on consumer behavior. Also to determine what features are most attractive to the customers
- To use previous data/research to build positioning strategies for the product in accordance with the major target markets focusing on physiological (safety or performance)
- Create a perceptual map of the product space, helping the product team to differentiate the prototype and or series of mockups
- Create a distinct marketing mix focusing on promotion and distribution channels, by developing a marketing campaign / sample advertisement for the product
- Discuss with the product team the probable cost of goods associated with the Delta Hook, as well as the time frame required to produce a finished product so as to determine the logistics of manufacturing

Sample Advertisement Overall Perceptual Map



Positioning Map

