

Inventory Management

A Zappos Expertise Case Study - Process Optimization

About

Zappos.com is an online marketplace established in 1999. Zappos lists shoes, apparel, and other retail items on its platform. In the early 2000's Zappos decided to manage all inventory on its site to improve and control customer experience.

Challenges

- Missed opportunities for additional margin recovery
- A complicated manual process requiring several employee hours each week
- Limited reporting on process inputs and outputs
- Strict business constraints on liquidation actions that can be taken

Solution

- Optimization team built a new inventory risk process by leveraging data and utilizing people in the merchandising team more effectively
- Changes were made to the existing product management system and business processes, including:
 - New data-driven algorithm to determine optimal liquidation actions
 - New workflow to streamline inventory management operations for end users
 - New reporting to better assess the financial impact of liquidation actions

Results

The quantitative optimization approach to mitigating inventory risk using sales forecasts and profitability projections was effective at tackling the challenges, particularly when paired with a redesigned workflow that allowed end users to engage with the process more efficiently.

- Improved margin recovery on at-risk inventory
- Entire process now managed by a single analyst
- Collective time savings of approx. 2,500 work hours per year
- New comprehensive reporting on process inputs and outputs

Improved flexibility on what liquidations actions can be taken

Background

As the selling season winds down and seasonal inventory continues to age, The Zappos merchandising team incurs the risk of increased inventory costs with reduced potential for margin recovery. Addressing this recurring problem requires a systematic process to identify and act on at-risk product, both efficiently and profitably.

Historically, this has been a manual process managed by over a dozen employees, consuming a great deal of time and attention each week with few metrics to quantify its true financial impact.