

# Dynamic Pricing for an Online Retailer

## Using Dynamic Pricing to Increase Margin and Decrease Waste

### Situation

The client was a billion-dollar online retailer of perishable gift items. Extracting the maximum revenue from perishable inventory was complex and their current process was not optimal. The client wanted to implement dynamic pricing at both the SKU and customer level. They needed a robust automated dynamic pricing algorithm to support their business goals of increasing margin and decreasing waste. Further, the client needed to understand and trust the algorithm's price recommendations – in other words, they did not want a black box.

### Approach

Pricing Solutions developed a 4-phase agile methodology for developing dynamic pricing. Each phase delivers incremental value and supports the client's business goals while also allowing them to learn.

### Phase 1: SKU Level Dynamic Pricing

Develop a dynamic pricing algorithm that uses inventory levels, elasticity, and iterative

feedback to generate daily optimized prices over one inventory cycle.

### Phase 2: SKU Level Extension

Extend the algorithm to optimize over a rolling horizon of inventory cycles.

### Phase 3: Customer Level

Leverage customer journey analysis and demographic data to add customer-level personalized pricing.

### Phase 4: Scale

Scale the model to other categories.

### Results



The algorithm's logical and intuitive structure, together with its effectiveness, won over all client stakeholders.



Phase 1 alone generated an estimated **5% margin lift** and **30% decrease in waste** for selected test categories

