

# FTD Profitability

## Pricing Model Development for Floral Arrangements

### Introduction and Background

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In order to determine the most suitable selling price for various floral arrangements, we embarked on a journey to develop a pricing model. The main objective was to ensure that the margins remained relatively normalized across different arrangements, regardless of their cost of goods (COGS).

### Initial Approach and Analysis

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Our initial approach was to explore a parabolic pricing model, with the formula:

$$SRP = COGS + \alpha \times COGS \times (1 - \beta \times COGS)$$

However, this model led to extreme margins, especially for arrangements with a high COGS. This led to limited returns on items with COGS above \$40.

### Modifications and Adjustments

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After several iterations, we realized that a linear increase in SRP for higher COGS might lead to exorbitantly priced products. Thus, we explored a variety of models including logarithmic and piecewise functions to achieve a balance.

### Final Piecewise Model

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Our final model was a piecewise function that utilized a linear model for products up to a certain COGS and a logarithmic model beyond that point. The transition point for the piecewise function was determined to be a COGS of \$40.

For "Sympathy":

- For  $COGS \leq \$40$ :

$$SRP = 2.5 \times COGS$$

- For  $COGS > \$40$ :

$$\text{SRP} = 2.5 \times 40 + 25 \times \log(\text{COGS} - 39)$$

For "EDay":

- For  $\text{COGS} \leq \$40$ :

$$\text{SRP} = 2.8 \times \text{COGS}$$

- For  $\text{COGS} > \$40$ :

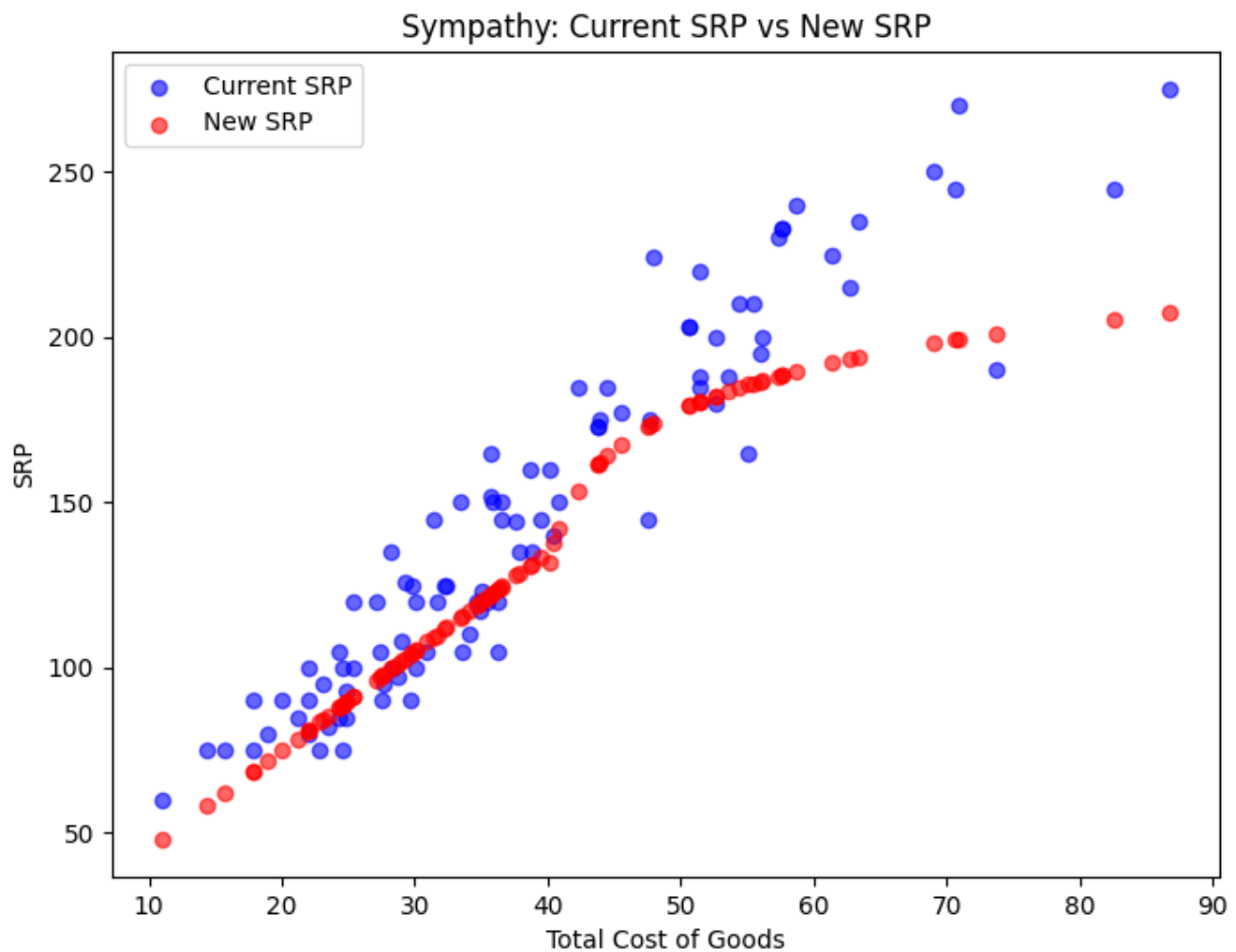
$$\text{SRP} = 2.8 \times 40 + 28 \times \log(\text{COGS} - 39)$$

## Graphical Representation

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### Sympathy: Current SRP vs New SRP

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# EDay: Current SRP vs New SRP

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