



Markdown Optimization for a Top 10 Retailer in US

Business Problem

Over the past decade, our client had seen a consistent reduction on gross margin, especially on the inventory that is permanently marked down. The client wanted to get more precise with their markdown strategy, and control the depth of markdown, timing of markdown and react better to store-level inventory. In addition, they wanted to reduce the frequency of markdowns as this has a significant impact on store labor.

Challenge

With more than 1000 stores spread across USA, and each store carrying more than 100,000 style colors, marking down items at a store level intelligently poses a significant problem. Solving this problem presents many challenges for Forecasting and Optimization. Forecasting for this problem is marked by short-life cycles for fashion products, high volume of data at a store level, high levels of promotion etc. Optimization needs to be performed considering store level inventory, price elasticity and base forecast. In addition to all these challenges, data (especially for merchandise attributes) is generally not of the highest quality.

Solution

Tiger Analytics partnered with SAS on implementing the SAS Markdown Optimization solution. The SAS solution is built to address this complex problem. The SAS Markdown Optimization solution was integrated with the client's data warehouse and planning system. The solution estimated the demand for the

diverse product types supported by the retailer through its multiple channels.

Tiger Analytics supported the development of the demand models for a large number of merchandise categories. We also integrated these models into daily and weekly processes.

The price recommendations were made while accommodating for multiple complex business rules involved in making markdown decisions. The solution provided information not only on how much the markdown should be but also when and at which stores. Additionally, processes to continuously tune the model based on new data and to monitor markdown performance were implemented.

Impact

The solution is expected to provide both financial and operational benefits to the customer. The solution is on track to deliver the following benefits:

- Increase in Gross Margin Dollars: \$90 Mil/Year
- Increase in sell-through on first markdown: 20-30%

About Tiger Analytics

We are a boutique analytical consulting firm. We use advanced analytical techniques, business insights and data engineering to make data-driven decisions and solve complex business problems.

Contact details: info@tigeranalytics.com
+1-408- 508-4430

For more information visit: www.tigeranalytics.com