MARKDOWN OPTIMIZATION

Opportunity to Maximize Margins in the Fluid World of Fashion Retail

In a world where most apparel retailers place purchase orders with their suppliers many months in advance of the season, effective planning requires accurately assessing the future customer needs and preferences. Successful retail apparel planners must balance the product risks, predict competitive offerings, being aware of the macro economic landscape that can impact costs and international markets, and estimate the right buy quantities to maximize sales and margins. Between the time when buying decisions are made and the time products start selling in various sales channels, the following types of changes can occur that will impact the actual in-season sales:

Changing customer needs: Customer preferences evolve over time and differ from one market to the other. They may love certain products one year and next year they may not purchase them again because trends have changed. Forecasted demand may change as customers already have the basic styles in their closets, or they may come back for it if similar products are offered with even a slight modification. Customer responses can vary by style, perceived quality, end-use of the product and by price point.

Product risks: There is always a certain level of risk with fashion products. There are limited capabilities to test apparel products in the market, therefore there is always an ongoing challenge of setting the right value proposition for the customer for each product when there are hundreds of products being introduced every season.

Competitive landscape: As new competitors enter the market, or existing ones develop new product or price offerings, market dynamics change from one year to the other, which may impact a retailer's value proposition in the eyes of the customers.

Macroeconomic factors: Fluctuation in currencies, inflation rates and government policies can have an impact on the cost of goods and reduce the planned gross margins which may require adjustment in prices by the retailer, which means taking risks on the acceptance of the new pricing structure by the customers.

These risks and absence of a crystal ball when making pre-season buying and pricing decisions, have made Markdown Optimization a critical part of in-season management and a way of maximizing the profits.

While some retailers treat markdown as an in-season liquidation tactic and as an opportunity to course-correct with new information, some others have embraced markdowns as a strategic way of attracting a different type of customer, 'the bargain shopper', who normally does not shop at regular ticket prices. Whether they are being used to attract a different customer segment, or just as a tactic to clear the older merchandise to make room for the next season, one of the biggest in-season decisions retailers face that has a direct impact on the bottom line is how and when to execute markdowns. Taking an analytical and systematic approach to answering the following questions has been proven to have direct impact on a retailer's gross margin:

- Which styles should be marked down?
- What is the right depth of markdown to achieve the best lifetime profitability?
- What is the right frequency of the progressive markdowns?
- Is there a benefit to starting the markdown some styles early in the season?
- Do all locations need the same level of markdown at a given time, is there benefit in localizing markdown decisions?

Today, most apparel retailers have embraced markdowns as a way of life and plan on selling a certain percentage of the stock at markdown. Some even invest in styles with the intention to sell more than half of the units in the markdown period. Whether it is 20% or 40% of the sales, markdown management is a critical part of margin maximization for a retailer and that is why more and more apparel retail companies have invested in markdown optimization technology over the last fifteen years.

Rule-based vs Optimized Markdown Pricing

There are different ways a retailer can approach markdown management; some have adopted rules-based methodologies including:

Fixed % discount buckets: Putting styles from the prior season on a fixed discount (such as 30%) and then increasing the discount percent progressively until the final exit date for the collection. This is one of the simplest and easiest approach operationally. However, the same level of discount will result in more popular styles to sell out while some others may not sell at the same rate and the retailer often ends up giving away margin on certain styles while having to keep discounting others for much longer than the exit date.

Fixed price buckets: Another approach is to split styles into different price offers (low, medium, high) ending with .99 based on the initial prices such as 9.99, 19.99, 39.99. Here, too, selected price points may be too deep of a discount for some styles and not deep enough for others. Single price points can also lead to devaluation of the styles in consumers' minds.

Fixed pricing across all sales locations: There is also the question of whether all locations should execute the same markdown prices for a given product. Single markdown pricing across all locations makes the execution and the messaging much simpler. Keeping the markdown prices across the whole chain is easier to manage and communicate to the customer and keeps pricing consistent across different sales channels. However, in markets where there are differences between shoppers in different locations in terms of style preferences, response to pricing and different competitive factors, there might be a need to tailor pricing strategies by store groups or clusters.

More than fifteen years of using markdown optimization technology has proven that the more granular and analytical approaches to markdown pricing across styles and locations results in an improvement of least 200 basis points of gross margin.

Different markdown prices across styles: This approach is driven by a markdown optimization system which considers each style's current price, current stock and planned shelf- life. It also incorporates forecasts based on selling price and lifecycle profile, evaluates financial scenarios for all acceptable price points and recommends the optimal markdown price at the chain level to achieve goals set by the user.

Different markdown prices by style and by location: This requires a more involved optimization and forecasting capability as each location or store cluster is evaluated independently for the optimal markdown price for a given style. Therefore, differences in customer purchase behavior, and/or inventory levels across locations can lead to different price recommendations for a given style.

A More Analytical Approach to Markdown Optimization:

Retailers who have tried different approaches to markdowns now agree that to maximize gross margins, markdown pricing tools need to take maximum advantage of big data analytics, and real time POS and inventory data. Markdown tools also need to be flexible, scalable, easy to configure for different levels of granularity and facilitate easy decision-making at all levels of the organization.

For a retailer looking to transform its end of the season markdown planning from a simple rule based approach to an analytic optimization driven approach that maximizes gross margin must look for a solution that:

- Increases precision of decision making, by style and channel or store group

- Enables real time what-if analysis with insight into second level financial impacts

- Facilitates faster decision making at all levels of the organization

- Allows for seamless execution of markdown pricing decisions

- Monitors results and tracks effectiveness and other KPIs

- Ensures consistent approach to markdown decisions across a group of planners

Solvoyo's Markdown Optimization solution built on an advanced retail supply chain analytics platform delivers all the necessary solution criteria with an easy to use interface and workflow that delivers measurable financial results and productivity gains.

Solvoyo understands the challenges and different aspects of in-season decision making in apparel retail and offers a suite of products to support merchants and planners in making the most profitable decisions.
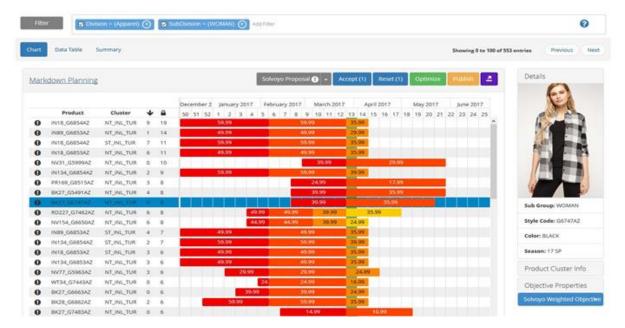
Solvoyo's Markdown Optimization solution is a user-friendly, fast and straight-forward way to:

- Maximize lifetime profitability of each style

- Increase inventory turns of the merchandise

- Sell through collections by a target date to make room for fresh merchandise

- Compare different markdown scenarios in terms of financial impact

How Solvoyo Can Help

Standardizes and streamlines markdown decision making by combining analytics, number crunching and user-inputs and approvals through a fast and user-friendly interface

Scenarios can be reviewed at various levels of the merchandise hierarchy and impacts of accepting the markdown recommendations can be easily assessed real-time. Configurable summary tables and KPIs provides financial insights including revenue, unit sales, gross margin for all scenarios.

Advanced forecasting methodology leverages attribute-based life cycles in the beginning of the selling period and combines with in-season performance of individual styles

One of the challenges of the apparel retail is that many of the new fashion products and styles do not have historical data from prior years. Solvoyo's attribute-based forecasting works with merchandise hierarchy and style attributes to forecast sales based on lifecycle curves from a group of similar styles and updates the forecasts in season based on a style's own selling history.

User-friendly and versatile what-if analysis enables retailers to evaluate different scenarios real time and facilitate fast-decision making

With Solvoyo Markdown Optimization users can evaluate different pricing scenarios such as optimizing sell-through by exit date, or optimizing lifetime gross margin and choose the scenario that fits company's strategy for that week. Users can also evaluate the impact of overriding markdown recommendations, changing the exit dates of the styles and review the financial metrics with ease from style level up to total company level to help make informed decisions.

Price & Sales History

Inventory, Revenue & Profit History

Objective Properties

Minimize Ending Inventory

Shelf Life: 35

Initial Price: 49.99

Discount Price: 39.99

New RSP: 29.99

Store Cover: 7

New Mark-up: 1.34

Str%: 84.07

Profit: 27,696.18

Revenue: 86,640.86

Gross Margin: 31.97 %

Ending Inv.: 528

Total Cover: 7

MR Index: 3

Easy to expand to new locations and markets and update business rules as businesses grow and face new challenges

As the business needs evolve and change over time, new markets could be added, and pricing rules (such as price points or minimum discount levels) can be introduced, and the company may have some business rules to make execution of markdowns easier for the store operations teams for different regions or groups of stores.

Cloud-based Software-as-as-Service solution is flexible, easy to deploy and minimizes upfront investment

Solvoyo's cloud-based Markdown Optimization solution is accessed on the web and does not require upfront investment in hardware or software installations, doesn't require lifetime investment in in-house resources to maintain and upgrade.

About Solvoyo

Solvoyo is the next generation supply chain planning and optimization platform built for the digital revolution in the supply chain world. Solvoyo helps companies close the gap between planning and execution. Our all-in-one platform forecasts demand, optimizes inventory, plans production, replenishes networks, fulfills orders, and concurrently optimizes transportation plans. Solvoyo is currently the only planning platform that allows companies to plan their strategic, tactical and operational level supply chain actions in one tool. The scalability, analytical capabilities and quick implementation cycles of our true cloud based platform help our clients quickly achieve dramatic improvements in supply chain performance. We are

headquartered in Boston, MA with our R&D center in Istanbul, Turkey. For more information, please visit **www.solvoyo.com**