

Powerful pricing: The next frontier in apparel and fashion advanced analytics

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The competitive landscape in apparel is shifting rapidly as new price leaders capture market share. The battle for value has never been harder fought. The very definition of value is evolving quickly, pressured by Amazon's entry into apparel, fast-fashion retailers, flash sales, and the arrival of ultra-value players. Between 2010 and 2015, the value sector of apparel retail, including off-price players, grew almost three times more than the premium tier, while the mid-tier shrank. This environment has intensified the use of promotions and put strong downward pressure on prices.

The apparel sector is using historic levels of promotion to counter declining customer traffic. To claw back margins, many players have squeezed sourcing costs and their merchandise calendars to shorten product lead times. Unfortunately, these gains seldom reach the bottom line, due to poor pricing discipline and reactive swings in business performance.

Apparel retailers also have difficulty keeping up with smarter "always-on" shoppers. Today's consumers are more sophisticated and technology-savvy, so they are harder to predict and even harder to satisfy. As their expectations and demands rise, they expect prices to fall. In 2016, off-price shoppers accounted for 75 percent of apparel purchases across all channels in North America,¹ creating a pack mentality that has spurred a race to the bottom.

A few apparel retailers are embracing advanced analytics and blending intuition with science to regain control and price smarter. Pricing smarter requires understanding where customers perceive value, having the agility to respond to competitive promotion levers with full insight into the impact on financial performance. The result can be margin and sales lift of 3 to 6 percentage points.

PRESSURE ON APPAREL PRICING

Merchants typically consider many factors in setting the price for a new style—the right initial markup, recent success of similar styles, the price required to move inventory, and competitor prices for similar items. But even the best merchants often fall into one of two traps.

First, merchants often pay disproportionate attention to one factor and miss the importance of others. For example, they might price to hit an internal margin target and check competitor prices only a few times during the selling season (sometimes, far less rigorously than an online shopper would).

Second, merchants often have misconceptions about the factors that really generate sales. Misinterpreting the impact of a price change on sales is the most common problem—for example, attributing higher outerwear sales to a \$10 price cut when a marketing event and cold spell had more to do with the sales lift.

Even when merchants balance all the right factors and assess the factors for a particular style accurately, they cannot consistently replicate that success across thousands of styles. They need at-scale analytical capabilities to make this level of rigor routine.

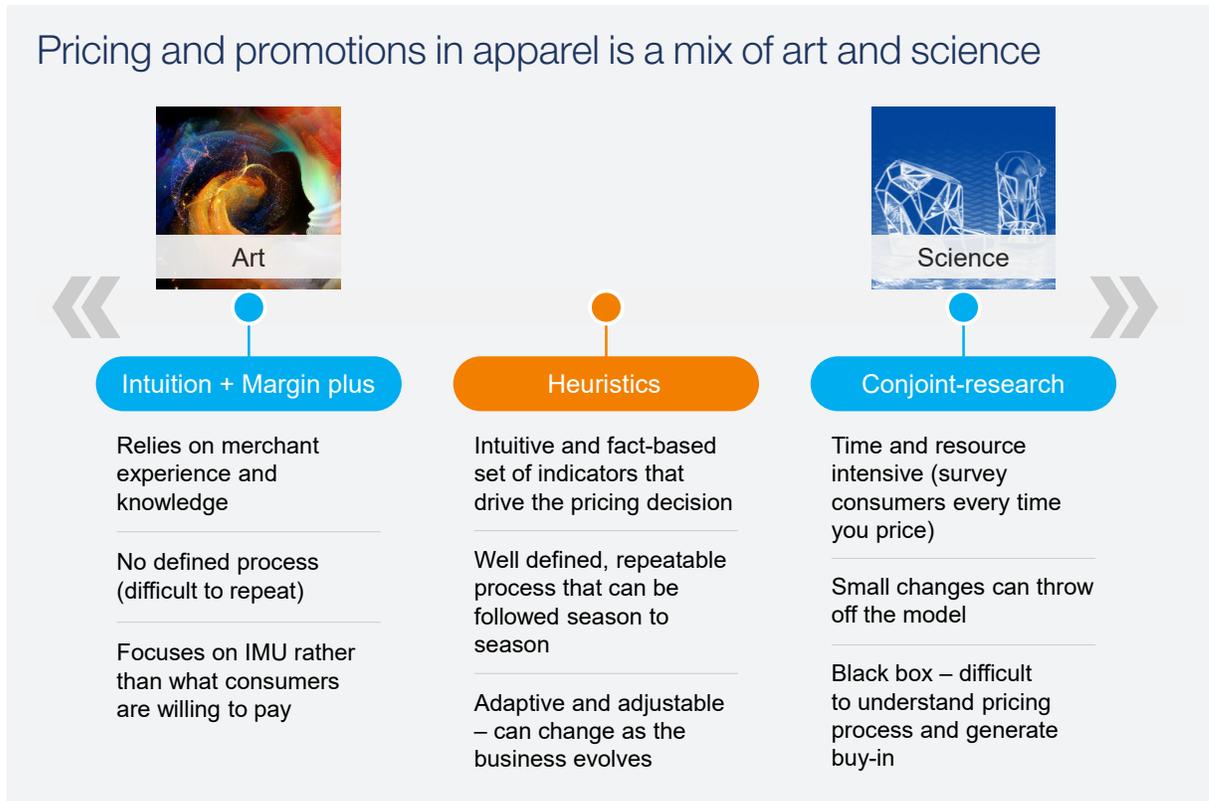
Winners in apparel have found a scalable way to employ a responsive, intelligent pricing discipline that aligns their pricing strategy with their customers' willingness to pay. The winners are investing carefully in price and promotion, leveraging insights from advanced analytics to make smarter decisions.

This does not mean abandoning the art of pricing. While automated pricing solutions have succeeded in some hardlines categories, the seasonality and ever-changing trends of fashion require a pricing approach that marries intuition with science (*Exhibit 1*).

¹ Source: <https://www.npd.com/wps/portal/npd/us/news/press-releases/2016/two-thirds-of-all-retail-shoppers-shop-off-price-reports-npd-group/> "Two-thirds of all retail shoppers shop off-price," NPD Group, July 14, 2016, npd.com.

Exhibit 1

Pricing and promotions in apparel is a mix of art and science



Source: McKinsey analysis

This approach addresses head-on the complexities we have seen in the apparel space: styles change from year to year, making it difficult to create a selling history; promotions have substantially increased in the past several years; long manufacturing lead times do not match rapidly changing trends and the move to dynamic pricing; new, value competitors have lowered the opening price point in many categories; and, finally, omni-channel pricing and fulfillment have increased the complexity of end-of-season markdown optimization.

NEW APPROACH TO APPAREL PRICING

Our long experience serving apparel retailers has led us to develop a pricing approach that addresses these issues. The approach is grounded in the factors that merchants typically consider in pricing but reinforces their intuition with repeatable analytics. We translate several dozen inputs into

insights and a price recommendation for each style that merchants can use early in their line planning (*Exhibit 2*).

This approach gives merchants a clear, informed idea of the price(s) to set for a style before planning sales volume and making inventory commitments. This foresight can spell the difference between strong sell-through and piles of excess inventory later in the season.

Much of this information is often accessible to buyers, merchants, and planners. But apparel retail has long struggled with the complexities of a highly varied product assortment and seasonal shopping patterns.

Our approach addresses five of the thorniest challenges, bringing a new level of precision and insight to pricing.

Exhibit 2

Factors often considered in developing a price recommendation

			
Factor 1	Factor 2	Factor 3	Factor 4
Consumer	Internal economics	Competitor	Market
Price elasticity Value for money score vs. competitors	Forward-looking cost and margin vs. targets Cost pass-through	Gap to like-item at competitors Brand and category value perception Share/volume evolution (e.g., price up where strong growth momentum)	Overall consumer trends in segment

Source: McKinsey analysis

Frequent introduction of new styles

New styles appear every season, often with little connection to products sold previously. As a result, products do not have a long sales history to analyze.

Merchants often address this challenge by grouping products based on a business-defined sales hierarchy—for example, group all graphic tees and analyze in aggregate. But this approach can mask details about a product that can be critical to understanding sales behavior—for example, sales of a graphic tee with embellishments are probably more inelastic than sales of a regular graphic tee due to the novelty of the embellished tee.

Artificial intelligence can address these style-matching challenges more accurately and efficiently than merchants ever could. Integrating techniques such as computer vision, text mining, and machine

learning can identify groups of styles that are likely to respond similarly to changes in price and promotions.

Frequent promotions

Promotions have become so frequent that assessing their incrementality or establishing a reasonable sales baseline is very difficult.

In a world where “30% off your purchase” and “extra 40% off sale styles” have become the day-to-day norm in some sectors of apparel, merchants must understand the ROI of those promotions. But measuring the incremental impact of each promotion over the sales baseline is increasingly difficult. This difficulty is even greater in omni-channel pricing, which limits the ability to A/B test into a partial answer.

“30% off your purchase” has become the norm in some sectors of apparel.

In many other industries, and even in some retail sectors, off-the-shelf models of price elasticity and responses to promotions describe consumer behavior accurately. But the nuances of apparel—not least of which, seasonality and trend—require a more tailored approach.

We have blended our apparel experience with cutting-edge approaches to elasticity modeling to isolate the impact of each promotion, controlling for factors that may dampen or amplify sales results. This solution equips planners and merchants to assess the impact of their promotional plan and in-season tactics on both the top and the bottom lines of the business.

Untimely investment and inventory purchasing decisions

These decisions often happen six to twelve months before a season starts. In this era of real-time, dynamic, and individualized pricing, the greatest challenge facing apparel retailers is probably the need to make investment, costing, and even pricing decisions months before the product hits the floor and consumers react to it.

Many retailers have begun to address this challenge with concept testing, online or in the store, but concept testing is often costly and difficult to manage at scale. This leaves brands testing a handful of key products before the season and relying on intuition and historical data for the rest of the portfolio.

We have developed analytical approaches that retailers can apply to the seasonal buying cycle to better inform where and how to buy. Instead of relying solely on trend or intuition to size each style's buy, planners and buyers can deconstruct style-

level performance and trends into manageable units that they can analyze and track over time. For example, we can decompose a 2% improvement in a style's sell-through into performance by store group, changes in pricing, overall category trend, and a number of other factors, to help planners and buyers determine how the style is likely to perform in an upcoming season.

Consumer unwillingness to pay

Over the past five years, consumers have grown less and less willing to pay as fast-fashion retailers, direct-to-consumer start-ups, and online retail giants have entered the apparel space. Expectations for the fair price of a garment have dropped dramatically.

We apply a two-step approach that combines primary research with competitive price data to better understand where to “invest” in lower prices. First, we identify the categories where price matters most to customer segments. Then we determine the prices that those customers consider fair for styles in those categories. This approach highlights the categories where consumers will give merchants credit for pricing appropriately and the price levels that merchants must offer to compete effectively in the categories that shape value perceptions. This consumer-based view of price focuses merchants, who might otherwise be tempted to match competitors across the assortment, on categories where price matching really matters.

Complex optimization of markdowns

Shifts to omni-channel pricing and fulfillment models have made optimizing the timing and depth of markdowns increasingly complex.

Retailers must now take into account the logistics costs of shipping inventory between stores and between channels (from a store to a fulfillment center, for example). This requires understanding consumer demand at much more granular levels in order to determine not only appropriate markdown timing and depth but also channel and location.

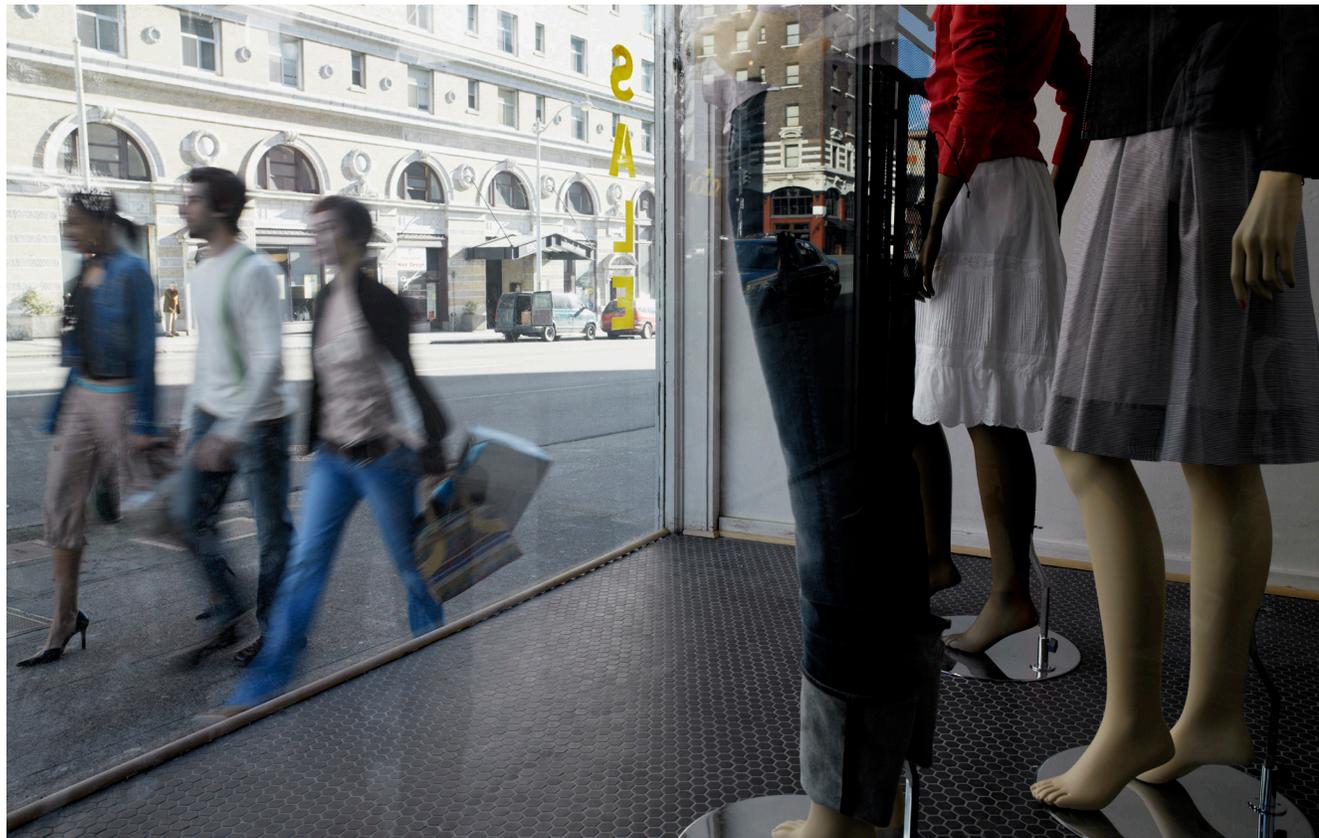
Our work with apparel retailers over the past five years has shown that the greatest obstacle to adopting new approaches and solutions is not the complexity of the optimization effort but the knowledge and experience of planners. They need to look beyond traditional channel or store-level management to understand the ever-expanding number of trade-offs inherent in the omni-channel model. We have found algorithms helpful for developing markdown options, and then ranking and prioritizing scenarios so planners can manage by exception, rather than reviewing every potential trade-off.

PRICING ANALYTICAL TOOL FOR APPAREL

Accessing the key facts needed to make smart pricing decisions—price elasticity, competitor prices, and the role of a category in creating value perception, to name a few—requires a year-round commitment to pricing analytics. Leading-edge retailers employ specialized tools that apply science

to pricing and distill advanced analytics into simple insights and recommendations that buyers can reference as they set pricing strategy.

Our work with clients in the retail industry, especially apparel clients, found no single solution that delivered an integrated perspective across pre-season planning (promotions and individual style pricing), in-season execution, and end-of-season clearance. To fill that void, we developed such a solution—Periscope Price Advisor. In a handful of modules, the solution guides buyers and merchants through the pricing, promotion, and markdown decisions they need to make throughout a product's life cycle: setting initial prices for individual styles; creating a solid basis for forecasting sales volume before committing to inventory quantities; building a promotional plan to maximize margin; and selecting what styles, in what stores, to mark down in order to maximize margin while clearing inventory.



We have found merchants and planners much more likely to adopt solutions that have not only a seamless user interface, but also transparent underlying logic. Price Advisor suggests a price for each style but also displays the recommendation logic and invites users to explore the contributing factors to fit their strategies, objectives, and business performance.

For example, during the planning phase, merchants can see and toggle the effect of elasticity, internal margin targets, and competitor prices in setting the initial ticket price.

In the competitor pricing module, merchants can use product attributes to quickly select competitors' comparable items and adjust the desired price gap via a visual interface (*Exhibit 3*).

Likewise, once the selling season begins, merchants can visually track the current and projected sell-through for each style. We recommend conducting a price review as frequently as a retailer adjusts prices throughout the season with promotions or markdowns (typically weekly, but often several times or more each week). This review should take into account the initial pricing strategy and updated seasonal factors, such as price elasticity based on season-to-date performance and competitor pricing changes. A scenario screen in Price Advisor visualizes the potential sales and margin impact of a price change (*Exhibit 4*).

When accompanied by a robust change management program, we have seen high merchant adoption of Price Advisor and mid-single-digit sales comp and margin increases.

* * *

The stakes in the game of price changes will only increase as industry forces intensify, with off-price and value retailers capturing the bulk of apparel growth and consumers ever-more able to compare prices. Promotions will continue to tempt merchants, but apparel retailers who apply science to their historically art-based pricing decisions will develop a powerful capability that can restore full-price selling.

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Exhibit 3

Competitor matching module, Price Advisor

2017 Fall Pre-Season > Women's Wear

← 2017 Programs / Dresses

Belted Stripe Fit & Flare Dress
\$55.00
This boldly striped day dress uses princess seams and gathers to create a figure-flaunting shape.

SHOW ATTRIBUTES

Required attributes: Regular (size) X, Sleeveless X
Optional attributes: Synthetic X, Fit & Flare X
Exclude attributes: Wool X, Short Sleeve X

Size Range	Style	Sleeve Length	Sleeve Type	Occasion	Material	Special

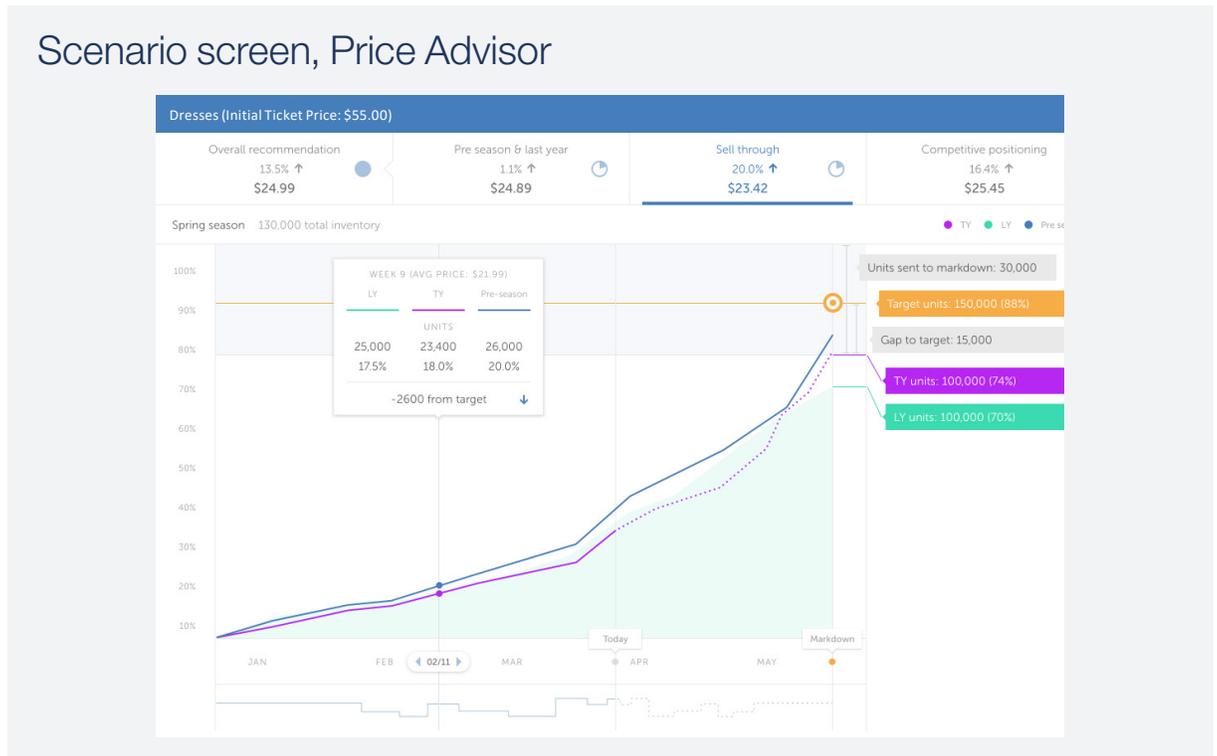
Competitor Brands: Macy's, Ann Taylor, Banana Republic, Target, Amazon

RECOMMENDED MATCH

- Nine West Sleeveless Striped Fit & Flare Dress**
\$29.99
A vibrant striped print makes this sleeveless A-line dress pop! From Nine West.
- Charter Club Striped Belted Fit & Flare Dress**
\$25.00
Charter Club's fit-and-flare dress with a pleated skirt, removable belt and striped print is easy to style.
- Nine West Belted Burnout Fit & Flare Dress**
\$29.75
Perfect day or night, Nine West lends a polished finish to this trendy dress.
- Anne Klein Floral-Print Sleeveless Fit & Flare Dress**
\$29.99
Wear this vibrant floral-print fit & flare dress by Anne Klein to work and beyond for a fashion-forward look.

Exhibit 4

Scenario screen, Price Advisor



Source: Periscope Price Advisor

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