McKinsey Apparel Fashion & Luxury

Pricing Fashion With Science

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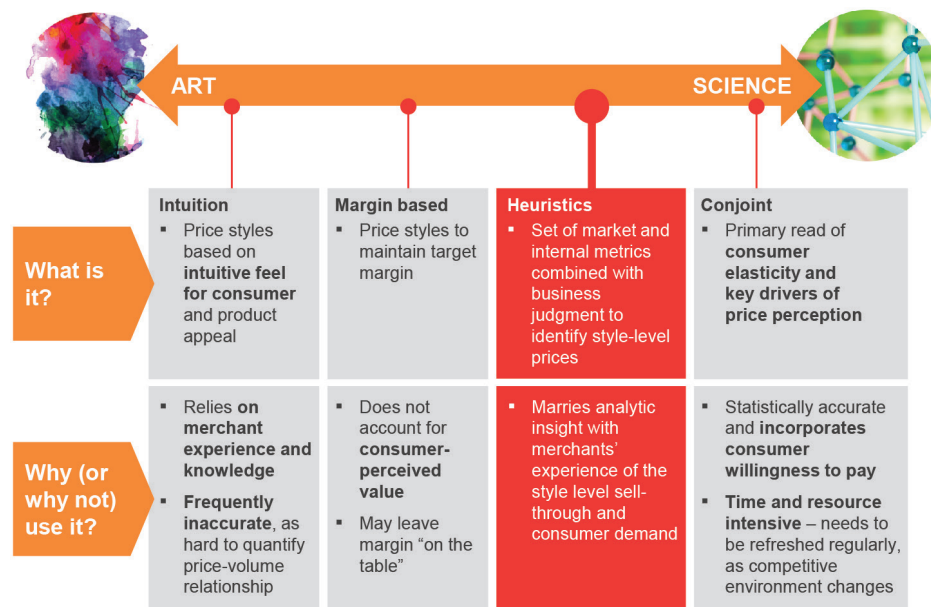Jennifer Schmidt

Pricing Fashion With Science

Pricing is one of the most challenging areas for fashion apparel retailers due to high SKU complexity, limited item comparability, and frequent flow of new collections. Historically, pricing has been more art than science. However, the ability to apply statistical approaches to even highly seasonal products such as fashion shorts, or high-priced goods such as luxury handbags, can drive substantial improvement in sales and margins.

Although technical pricing solutions have existed for more than a decade, most merchants are skeptical of their effectiveness. Instead, merchants prefer to rely on an intuitive sense of what the consumer would be willing to pay, competitive benchmarking, and margin contribution. This reliance on subjective pricing prevails in the marketplace, even in the era of big data and online price transparency.

We recommend a model that allows merchants to enhance their business judgment and gut intuition with science. This model is called "heuristics," and it mirrors many of the trade-offs that typically run through a merchant's head when pricing an item (Exhibit 1).

Exhibit 1

Heuristics uses both art and science to make better pricing decisions

ART → SCIENCE

	Intuition	Margin based	Heuristics	Conjoint
What is it?	Price styles based on **intuitive feel for consumer** and product appeal	Price styles to maintain target margin	Set of market and internal metrics combined with business judgment to identify style-level prices	Primary read of **consumer elasticity and key drivers of price perception**
Why (or why not) use it?	Relies **on merchant experience and knowledge**; **Frequently inaccurate**, as hard to quantify price-volume relationship	Does not account for **consumer-perceived value**; May leave margin "on the table"	Marries analytic insight with merchants' experience of the style level sell-through and consumer demand	Statistically accurate and **incorporates consumer willingness to pay**; **Time and resource intensive** – needs to be refreshed regularly, as competitive environment changes

The model uses internal and external metrics that incorporate a wide range of relevant factors. It applies a rigorous statistical analysis to filter those factors and tailor the metrics to fit each retailer's business strategy (Exhibit 2).

Exhibit 2

For one apparel company, we considered 50 factors to identify nine core pricing drivers

We initially consider a mix of **50 qualitative** and quantitative factors…

…and finally use statistical analysis and business judgment to identify **8-10 factors** that are indicative of category performance

- Brand-equity index
- Category role
- Seasonality
- Product placement
- Assortment mix
- Substitutability
- Exposure to inputs
- Product life cycle
- Regional pricing

1. Profit maximization
2. Revenue maximization
3. Product attributes
4. Class share growth
5. Average unit retail vs. ticket price
6. Original ticket vs. competitors
7. Brand share
8. Target margin
9. Category momentum

Example indicators

Consider the many factors that a retailer must take into account when deciding how to price an item of apparel, such as a summer dress. Internal economics will influence the retailer's product-margin target, leading to a calculation along the lines of "if we want to reach a 30 percent margin on this item, the dress needs to be priced at least at $48." Factoring in competitive dynamics could drive the price to a higher level, such as $55, if the retailer wishes to price the dress above a similar item in a competitor's collection. Conversely, price-positioning considerations could push the price slightly lower, to around $36, if the dress is not part of the retailer's "better" tier. Even the savviest retailer faces a challenge in deciding which factors to consider and how much weight to allocate to each in determining how to price the dress (Exhibit 3).
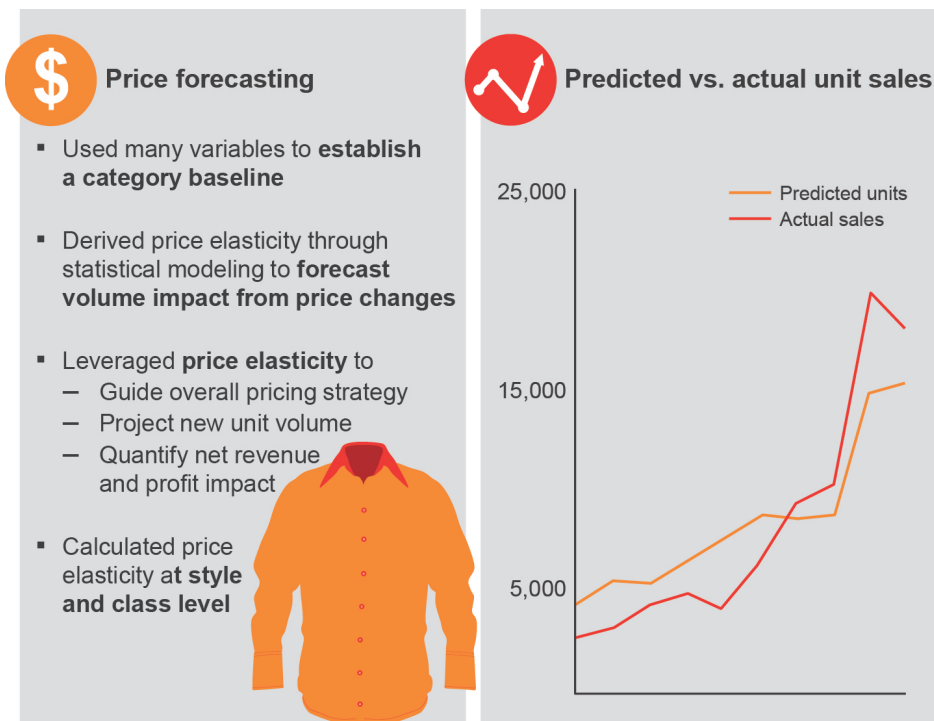
Exhibit 3

In pricing apparel styles, merchants take many factors into account

FACTORS MERCHANTS CONSIDER

Internal economics: "Given that we want to reach a 30% margin target on this item, it should be priced at least at $48" $95

Competitive dynamics: "Our competition has a similar product at $55, so we want to set our price above that as market leaders" $110

Price positioning: "This is not in our premium line, so the price should be at least 20% lower than our core offering" $80

Consumer input: "Research says that this item is elastic, so we could decrease our price a bit, but I don't know how much – I think we might want it lower"   ???

Inventory supply: "We need to have a high sales rate on this item, or the markdowns will kill our profits" $85

But which factor is **MOST** important?

Although many of the indicators in our model apply broadly to other retail sectors, they include two whose use in apparel pricing has been problematic to date. The first, elasticity, is relatively common in consumer sectors that rely on stable data points but is not often used in fashion apparel, given the nature of the business. By using an econometric approach, retailers can estimate the impact of price changes on unit sales with a high level of confidence (Exhibit 4). Gauging the appropriate level of elasticity is critical, because this assessment is then used to guide overall price adjustments, to project new unit volume, and to quantify net revenue and profit impact.
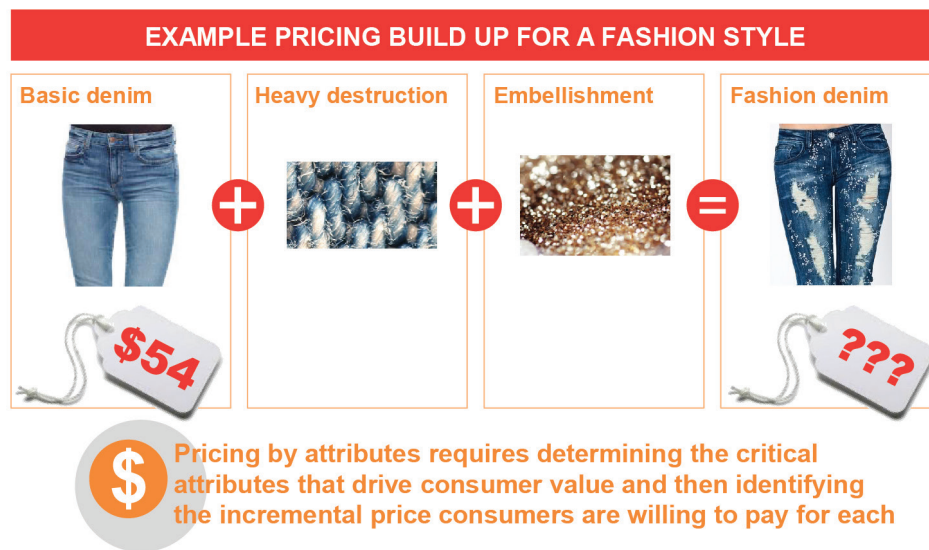
Exhibit 4

An econometric approach allows retailers to estimate the impact of price changes on unit sales with a high level of confidence

Price forecasting

- Used many variables to **establish a category baseline**

- Derived price elasticity through statistical modeling to **forecast volume impact from price changes**

- Leveraged **price elasticity** to
  - Guide overall pricing strategy
  - Project new unit volume
  - Quantify net revenue and profit impact

- Calculated price elasticity a**t style and class level**

Predicted vs. actual unit sales

25,000

— Predicted units
— Actual sales

15,000

5,000

The second innovative indicator is the perceived value of individual product attributes, such as color, wash, or embellishment. Most merchants price items with embellishments higher than ones without these extra features, although they typically do not know how much of a premium the embellishments should command. By breaking down all possible attributes and understanding their perceived value, the pricing can be tailored appropriately (Exhibit 5).

Exhibit 5

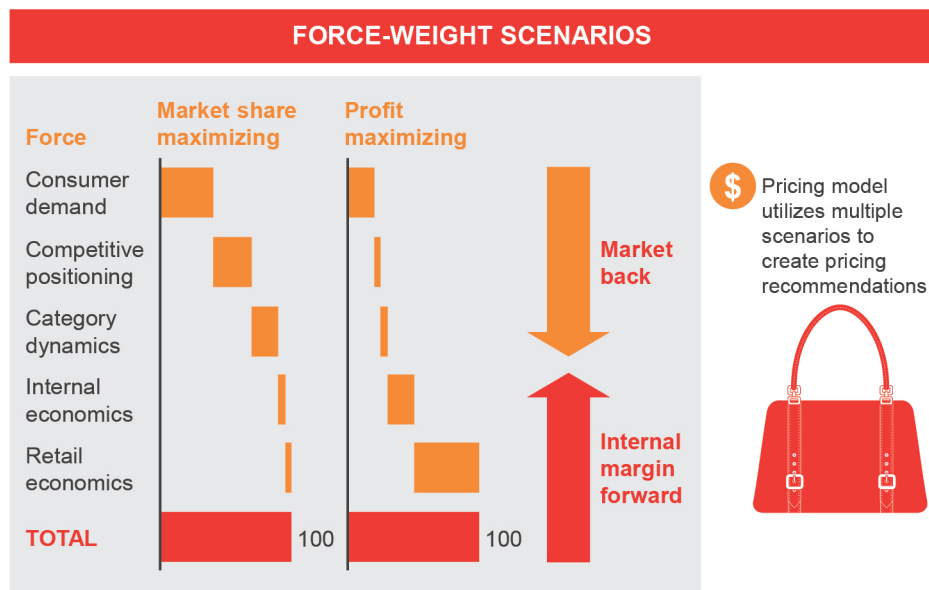Pricing by attributes enables merchants to price products based on consumer value

EXAMPLE PRICING BUILD UP FOR A FASHION STYLE

Basic denim + Heavy destruction + Embellishment = Fashion denim

$54   ???

$ Pricing by attributes requires determining the critical attributes that drive consumer value and then identifying the incremental price consumers are willing to pay for each

Although each of the indicators could be used individually to set a price for a style, we believe retailers should use a combination of relevant indicators, assigning a weight to each one, in order to arrive at a price recommendation. Depending on the retailer's objectives, that recommendation could maximize product profitability or market share.

To implement this approach, most retailers will need stronger analytics capabilities and might need to rethink how they collect and structure the relevant data for each indicator. Determining how much weight to give each indicator is an iterative process to which retailers must bring a strong understanding of their business and their strategic objectives in pricing. In basic apparel categories, for example, some merchants will choose to prioritize certain indicators related to competitive positioning (Exhibit 6). In more trend-driven styles, they may opt to give more weight to indicators that reflect consumer demand. By tailoring their approach in this way, they will achieve greater influence in optimizing their prices.

Exhibit 6

Groups of indicators (or 'forces') are weighted based on objective and pricing strategy

FORCE-WEIGHT SCENARIOS

Force	Market share maximizing	Profit maximizing
Consumer demand		
Competitive positioning		
Category dynamics		
Internal economics		
Retail economics		
TOTAL	100	100

Market back

Internal margin forward

$ Pricing model utilizes multiple scenarios to create pricing recommendations

Retailers can also apply this methodology to understand the optimal number of price points within a category. Most retailers use few price points, out of habit and familiarity, and there is often a correlation between this small number and lower average ticket prices. Other retailers resort to too many price points, generating consumer confusion over differences in product value. By optimizing the number of price points they use and ensuring that their merchandise selection aligns with these new prices, retailers could capture a tremendous amount of incremental gross-margin opportunity.

Although this approach relies on the "science" of external analytical tools, it remains rooted in the "art" of merchant expertise and knowledge. Because it is based on strategic decisions for weighting indicators, it is a flexible model that can easily be updated to keep pace with changing business strategies. As long as fashions change with the seasons, there will always be an element of unpredictability in apparel pricing. Retailers have much to gain by harnessing the wealth of knowledge they have at their disposal and applying these innovations to their apparel pricing strategies.