WHITE PAPER

The Six Analytic Capabilities of Retail Pricing Excellence

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For most retailers, shelf price presents the single fastest way to grow profits, yet many find themselves unequipped to deal with the complexities of pricing analytics. Some, with minimal investment and low organizational adoption, stay in the basic stages perennially. Others invest in staff and toolkits to develop advanced analytic capabilities which, when paired with the broader strategic context, drive huge financial impacts. Setting aside <u>why</u> retailers are where they are, there's value in exploring <u>how</u> they progress from naive to best-in-class.

In the evolution of pricing analytics there are six core capabilities that retailers must master to not only broaden the scope and applicability of the analytics, but also increase the value delivered. The rewards, however, are large: pricing is one of the single most important levers for immediate bottom-line impact.

Capability 1: Basic Elasticity Measurement

At the core of price elasticity is an understanding how price changes tend to move unit velocity. While the concept is fairly straightforward, the devil is in the details of scoping. In the early phases of development, elasticity is often measured at the sum of the assortment: measuring price's impact on the unit velocity of the sum of the SKUs in the line. It's often executed at the national or total footprint level, with price recommendations applied just as broadly.

$$E_d = \frac{\text{\% change in quantity demanded (sold)}}{\text{\% change in price}} = \frac{\Delta Q_d / Q_d}{\Delta P / P}$$

Retailers further along are able to measure at the very granular SKU-Store level and then properly roll up to assortments and categories so that the merchants and buyers can make optimal pricing decisions. The recommendations, if approved, must be disaggregated back to the SKU-Store level to be executed.

Capability 2: Unpacking Assortments

A consumer's propensity trade up or down within sub-assortments is an asset to optimization, not an analytic obstacle to be avoided. The next level of sophistication involves unwinding the interactions between sub-assortment groups- like the "good" in the "good-better-best" lineup. So rather than changing all prices in a category monolithically, one can optimize the price by brand, sub-assortment, or feature set.

Another key to the assortment is to identify and focus on Key Value Items (KVIs), which drive a higher-than-expected response to price changes due to visibility, extreme promotion, or existing reference prices in the mind of the consumers. In grocery, for example, the typical KVI SKUs are things like the 2 liter bottle of Coke, the dozen eggs, and loaf of bread.
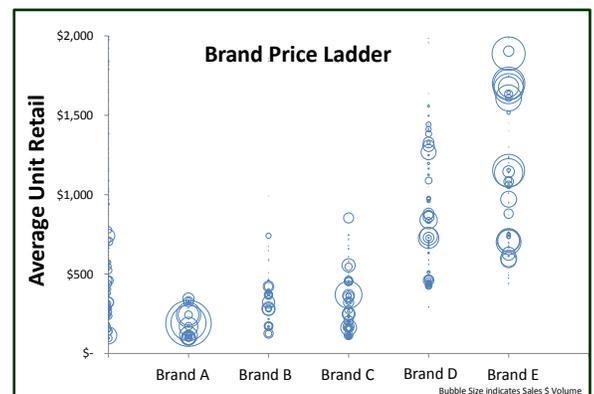
Capability 3: Store & Regional Breakouts
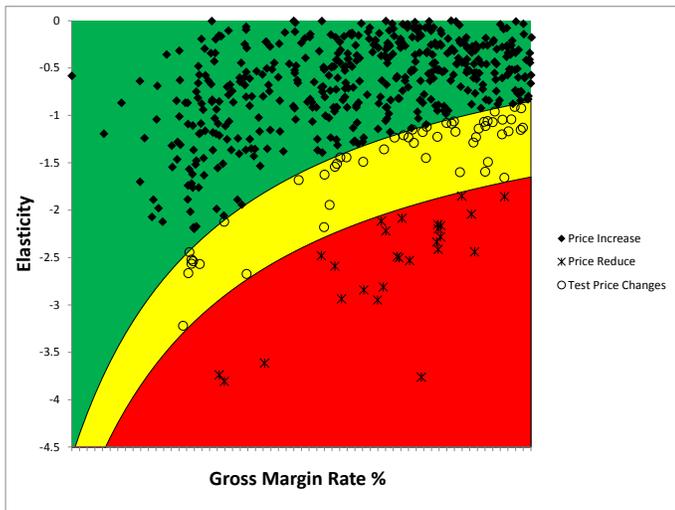
Retailers looking to set prices store by store often encounter two challenges: IT system constraints and the resistance to pricepoint proliferation in the eyes of the merchant or buyer. There is a real "tyranny of averages" in store-level pricing because the differences between any single store and the broader average can be quite large. The enormous value of being able to set a store's price for its location, customer base, and competitive environment is what drives most of the returns of increased pricing sophistication.

Capability 4: Integrating Competitive Price

Moving from ad-hoc rumors of competitor prices from the field toward systematic data feeds from web-based monitors is only the first and often easiest, step in the process. The second is finding a way to match the external SKU data to their identical (or at least equivalent) SKU internally. And once that is accomplished, many retailers end up building exception reports to notify the category owners when prices get out of a certain range to the market and enable owners to adjust quickly with push-button response options.

While those are important, the greatest value comes from measuring gap elasticity, or the impact on your velocity from a competitor's price change. Robust data and calculated gap elasticity is <u>necessary but not sufficient</u> to drive the long-term price strategy, as best-in-class retailers then leverage game theory concepts to determine how they set price relative to the market landscape to maximize their own performance.
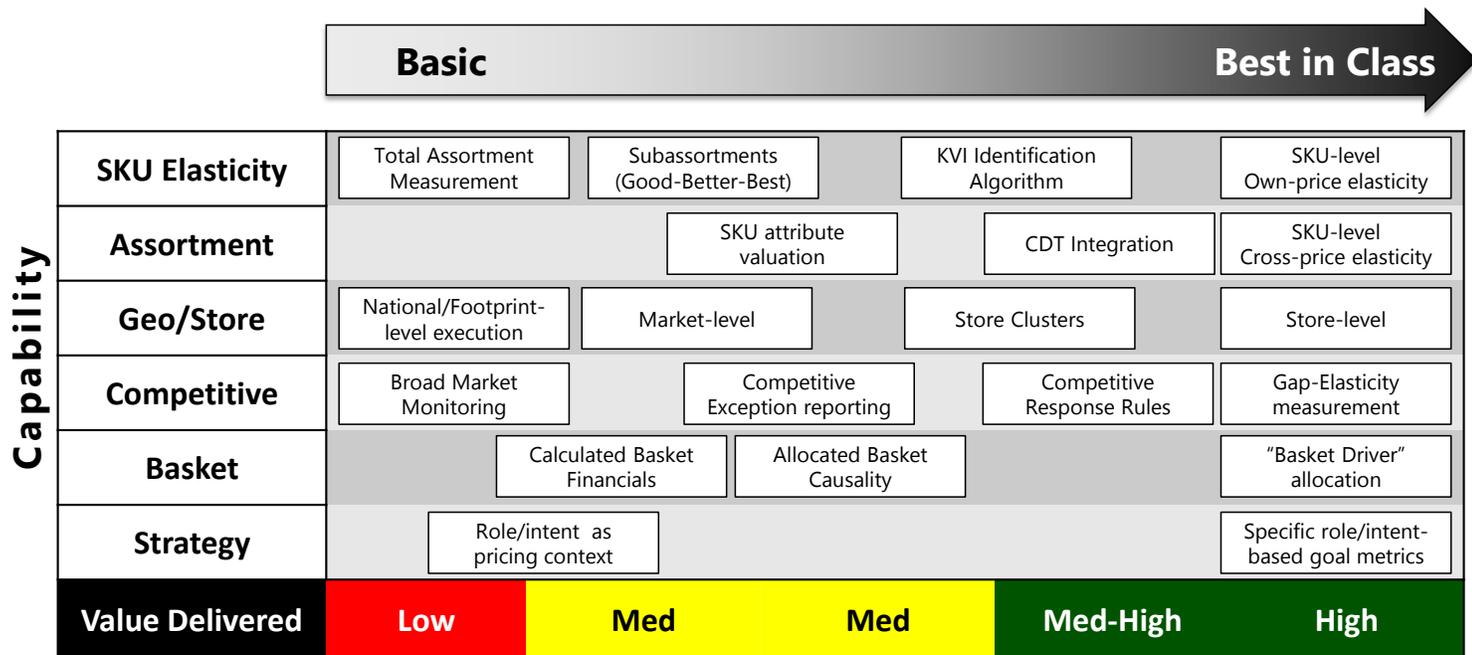
Capability 5: Leveraging Basket Data

The challenge with basket data is always how to allocate the credit to the particular product responsible for bringing the customer into the store. This item can be called the *basket starter*, or *trip mission SKU*, or *driver product*. The correlation of candy bars from the checkout with other products in the basket does not imply that the candy bar <u>caused</u> the sale of those other items. It gets much harder when there is more than one SKU that could have plausibly caused the trip in a basket. Retailers facing this challenge end up either simply reporting the basket data as context information (meaning it is never part of any formal calculations) or develop advanced analytical approaches for allocation of the basket value to the SKUs purchased.

Capability 6: The Strategic Overlay

Incorporating a category's Role and Intent into pricing analyses is the most important, yet often last accomplished capability. Naïve pricing teams often begin optimizing on profit alone, but topline sales performance matters in retail, which presents the potential for divergent analytic goals. A product's role and intent assignment can inform the best balance between sales and profit performance. For example, a product with a "Destination" role and "High Growth" intent should often target topline sales exclusively. A "Traffic" product like our candy bar should optimize on profit.

Fitting it all Together

As retailers go from Basic to Best-In-Class, the progression of capabilities often moves along the below chart in each of the capabilities, with each step adding increasing financial and strategic value to the organization.

Basic			Best in Class
SKU Elasticity Total Assortment Measurement	Subassortments (Good-Better-Best)	KVI Identification Algorithm	SKU-level Own-price elasticity
Assortment	SKU attribute valuation	CDT Integration	SKU-level Cross-price elasticity
Geo/Store National/Footprint-level execution	Market-level	Store Clusters	Store-level
Competitive Broad Market Monitoring	Competitive Exception reporting	Competitive Response Rules	Gap-Elasticity measurement
Basket Calculated Basket Financials	Allocated Basket Causality		"Basket Driver" allocation
Strategy Role/intent as pricing context			Specific role/intent-based goal metrics
Value Delivered Low	Med	Med	Med-High High

About Penfield

Penfield is a boutique strategy consultancy that leverages marketing and analytics to develop insights that drive immediate results through improved business decisions.

We bridge the gap between strategy and action. Our team consists of business leaders with a mix of line management and consulting experience across a host of retail and manufacturing businesses. Our expertise leading client engagements combined with our real-world experience enables the strategic thinking and practical application to drive growth.

Penfield blends 3 crucial disciplines for clients:

Analytics Expertise:
- Deep Pricing Toolkits
- "Big Data" Retail Datasets
- Competitive Dataset Integration

Analytics

Strategic Advisory

Experience

Strategic Advisory:
- Balancing "Art" with "Science"
- High-service partnership model

Relevant Experience:
- Best-in-Class Retailers
- Price-Assortment Integration