

## ***What is the Retail Pricing Strategy Series?***

Retailers are faced with mounting concerns around competing effectively with Walmart and Amazon in an environment where shoppers are more sophisticated and informed. This communication series is dedicated to addressing some of the most current pricing strategy concerns posed by retailers and providing honest commentary which may challenge conventional thinking.

## ***Retail Pricing Strategy Series Volume #1***

### ***Play by the Rules: how should optimization systems solve; report and manage pricing rules?***

Retail pricing rules are more important today than ever to enforce a retailer's price strategy, compete effectively and deliver a consistent shopping experience. How rules are handled inside optimization solutions is critical. Optimization cannot be solved 1<sup>st</sup> and rules solved 2<sup>nd</sup> - as it has been done for years – otherwise rules violations will proliferate; pricing inconsistencies will occur and same-store sales will erode. Therefore, the order must be reversed: rules must be administered first and then optimization bound by these same rules.

However, solving for pricing rule systems is a complicated science-based problem. For example, it is common to expect optimization systems to simultaneously solve for:

- *Competitive prices online and in-store;*
- *Minimum margin;*
- *% price or \$ price changes;*
- *Brand vs. Private Label relationships; and*
- *Pack size relationships.*

Heretofore, approaches for solving these rules included 1) ignoring rules initially and tuning optimization results to comply with rules, 2) relaxing rules based on some subjective determination by the user, or 3) solving rules independently and averaging the results. In each case, the trade-offs were performed without comparative sensitivity to other factors or with incomplete information on the category financial impact.

***Technology has evolved.*** Consider that rules have a monetary value: broken or compliant. If you monetize the rules and rank them in order of cost; bound optimization results by these rules; and then trade off the cost of rules with profit & revenue, you have effectively constrained optimization using *Intelligent* rules. Mathematically, once you have a monetary value associated with each rule at every discrete price point, the penalty for rule violations is quantifiable and increases with the size of the deviation from the rule. Recent price strategy and optimization science can measure these trade-offs; present the best pricing scenarios available to the retailer; and report the number of rules violations associated with each scenario. An approach which is decidedly more *Compliant* with retailer pricing rules.

Before we leave the “solve” discussion, let's make the problem more concrete. Consider the following scenario with only two products and three rules.

Product Description	Product Cost	Current Price	Competitive Price	Rule #1 Brand Parity Relationship	Rule #2 Competitive Ceiling	Rule #3 Minimum Margin
Product A	\$5	\$8	\$12	-----	\$12	\$10
Product B	\$9	\$12	\$24	$B = 2X(A)^1$	\$24	\$18

1. For clarity, Product B is worth twice as much as Product A based on either pack size or National Brand vs. Private Label.

At current prices \$8 and \$12, you are violating Rule #1 (Brand Relationship) and Rule #3 (Margin).

One historical approach relaxes Rule #1 or Rule #3 depending on some subjective user-priority. If you prioritize Rule #3, you violate Rule #1. If you prioritize Rule #1, you will most likely violate Rule #3.

Another historical approach solves rules independently and averages the results. If you solve for Rule #1, you might drive prices to \$7 and \$14 for Products A and B. If you solve for Rule #3 you would drive prices to \$10 and \$18 for Products A and B. If you sum the rules for each Product and average you have Product A  $(\$7 + \$10)/2 = \$8.50$  and Product B  $(\$14 + \$18)/2 = \$16.00$ . The results violate Rule #1 and Rule #3.

While we acknowledge the mental gymnastics required to consider the problem, the exercise is useful in demonstrating the complexity of retail pricing. There is an alternative to these historical approaches: *Compliant science* would dictate prices for Product A/B as \$10/20, \$11/22 or \$22/24 – in each case, respecting all rules and maximizing value creation. In so doing, you have effectively achieved *Compliant Optimization* - to date an unsolved scientific problem.

To this point we have discussed solving and reporting rules violations. However, the rules discussion does not end with solving and reporting. There is the issue of managing rules in a dynamically changing marketplace where costs, competitors and products change. Important questions to ask include:

- **Incorporating Pricing Intelligence.** Can you incorporate online and in-store competitive pricing intelligence at any frequency and the re-solve, report and manage pricing rules?
- **Rules Alert Systems.** As competitive prices change, is there an alerting system in place to signal when prices are out of compliance with targets or thresholds?
- **Visualizing Rules Forces.** How can you visualize the forces at work on current prices so you can explain the relationship between products?

## About our Authors

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## About Clear Demand

Clear Demand is an innovative young software company committed to answering today's complex retail business issues with *consumable* technology. Not technology for the sake of technology but technology for the speed of business: where science complements the art of retailing. [www.clear-demand.com](http://www.clear-demand.com)