

Capturing the Markdown Opportunity

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Markdown optimization that misses

In an August 2001, article in *The Wall Street Journal*, a retailer experimenting with a sophisticated new markdown approach revealed that the average optimal first markdown for items in its high-volume stores was 25.7%, while the average optimal first markdown for low-volume stores was 46.3%.

Evidence of sophisticated analysis? Perhaps. But also evidence of how much opportunity was left on the table even with “markdown optimization.” After all, the retailer would have made much more money if less product had been sent to its low-volume stores and more to its high-volume stores, trading sales marked down 46.3% for sales marked down 25.7%. A major opportunity to reduce markdowns and increase gross margin was left on the table. Fixing allocations before implementing markdown rocket-science would have better served this retailer. In this case, the markdown rocket-science only served to highlight the size of the allocation opportunity.

Nearly all retailers with short-life products have identified improving markdowns as a significant opportunity for improved profitability. After all, the systems and processes typically used to manage markdowns are not only labor-intensive, but

also fail to match merchandising judgment with rigorous business science. While these efforts will undoubtedly yield some benefits, markdown optimization quickly hits limits unless another opportunity is addressed in parallel – specifically, fixing allocations systems and processes that create the need for markdowns by putting the wrong quantities of an item in the wrong place.

Improved markdown performance requires three key changes: (1) Avoiding markdowns through better allocation, (2) Anticipating markdowns in allocation, and – finally – (3) Optimizing the level and timing of the markdowns themselves. Moving straight to markdown optimization without tackling the related allocation issues fails to capture the full opportunity.

Avoiding markdowns through better allocation

The first step in improving gross margins and reducing markdowns is eliminating unnecessary markdowns caused by poor allocations. In Bluefire’s experience, substantial reductions in the need to markdown items can be realized by superior allocation. At one client, for example, the actual full-price sell-through of a collection of items at the time of the first markdown was

only 63%; with superior allocation that maintained much higher in-stock rates, the sell-through could have been 80%. Better allocation would have driven higher in-stocks and higher sales, and eliminated nearly half of the need to markdown items.

Fixing allocation.

Most retailers unnecessarily create many markdowns through poor product allocations. If retailers look under the covers of allocation – at store-SKU level sales and on-hands – the picture is usually pretty dismal. The quick examination is quite easy – take a few example SKUs and plot weeks of supply on a graph for each and every store, ranked from highest to lowest. Invariably, retailers find tremendous variation – with some stores carrying wildly excess inventories and other stores stocking out. The stores with excess inventories are markdowns simply waiting to happen; the stores that are stocked out are missing would-be full-price sales and creating future markdown sales.

The source of the allocation opportunity is straightforward – retailers use tools that are terrible at managing short-life products well. Good allocation systems need to include the following elements:

(a) ***Push-Pull-Push instead of Push.*** Many retail systems for fashion item allocation are dominated by early season push allocations – much of the product is sent out in advance of any information on actual selling. An allocation methodology that starts with a small initial push, but then switches to in-season pull replenishment – based on actual selling – will substantially outperform a push-dominated allocation approach.

(b) ***Improved forecasting.*** Forecasting short-life items has always been challenging because of the uncertainties of product performance and a lack of a long sales history. The right approach reforecasts based on actual selling, while at the same time appropriately

adjusting the forward forecast for the natural selling profile, seasonality, presentation, and pricing activity. Without good forecasting, good allocations are impossible.

(c) ***Reduced reaction to anomalous selling.*** Many allocation approaches react far too quickly to store-SKU level anomalous selling. At the store-SKU level, sales velocities are very low for most retailers – one unit or fewer per week for many items. Many allocation systems will take an anomalous sales spike – perhaps five units of an item sold in one week – and substantially overreact, sending inventory that will sit in stores for months to come, ultimately to be marked down. Any system that takes a short selling period at the store-SKU level and directly extrapolates creates this problem.

(d) ***Allocation at the SKU level.*** Some retailers still do not drive allocations at the SKU level. Instead of determining allocation quantities based on SKU-level sales, on-hand, and forecast information, these retailers use class- or collection-level need to determine allocations. The assumption, apparently, is that all items within that group are interchangeable. The result, however, is substantial excess store on-hands of some items and stockouts of other items – and ultimately, the need for more markdowns.

(e) ***Reducing excessive visual presentations.*** A pleasing visual presentation is clearly important to stimulating customer purchases. However, in too many cases, store visual presentations are set well in excess of the quantity that can be sold during the season, particularly in low-volume stores. If a product has a 12-week life, and the expected sales for the item are only ½ unit per week, then a required visual presentation of 12 means that markdowns are almost certain. All visual presentations should be rigorously reviewed, and, where possible, reduced to prevent inevitable markdowns.

Many retailers do not execute well against all of these requirements, resulting in suboptimal allocations, out-of-stocks, and reduced full-price selling. With short-life products, poor allocations mean more markdowns.

Anticipating markdowns in allocation

Of course, some items will require markdowns even with perfect allocation. Because of this, integration between allocation and markdown decisions is important. Allocation quantities need to change not only based on markdown decisions already taken, but also on future required markdowns.

Different items behave very differently in different locations when marked down. Some items barely accelerate at all, while other items accelerate sharply with relatively modest markdowns. Locations vary as well. Shoppers at more fashion-oriented locations are often less inclined to purchase markdown items than those in bargain-oriented locations. The same item may accelerate only 75% in one location, but 200% in another.

For maximum benefit, allocation quantities – particularly late in the season – should vary by store based on a store’s likely markdown sales acceleration. More inventory should be allocated to stores where sales accelerate sharply in markdowns, while less inventory should be allocated to stores that do not respond as well to markdowns. Allocation logic should *anticipate* the required markdowns, and make allocation adjustments accordingly. With this approach, the inventory will clear with fewer, shallower markdowns.

Before all product is distributed from the DC, markdown decisions and markdown responses affect allocation decisions. Subsequently, those allocation decisions affect markdown decisions. The end state is to bring real sophistication and integrated decision-making and systems to both of these processes. Stand-

alone markdown optimization tools ultimately fail to capture the entire opportunity.

Optimizing markdowns

Markdown optimization is truly an area where analytic sophistication can provide a powerful complement to merchandising art to drive profitability. Markdown optimization should generally have the following elements:

(a) ***Optimizing chain-wide until the last distribution.*** Markdown optimization should generally occur at the chain level until the last distribution of a product to the stores has occurred. Prior to the last distribution, allocation quantities can be adjusted to address imbalances and allocate more product to understocked stores and eliminate allocations to overstocked stores. Once the last distribution has occurred, markdown optimization should vary by store – assuming that differential pricing by store is consistent with the overall merchandising strategy.

(b) ***Avoiding the trap of small numbers.*** Particularly when running markdown optimization at the store level, the low typical sales velocities and on-hand quantities for each SKU can produce nonsensical results. Algorithms need to include “guardrails” – a single day with a large number of sales does not suggest that an item’s sales trajectory has substantially improved. The impact of anomalous selling needs to be filtered out of markdown calculations.

(c) ***Testing of all practical scenarios.*** A markdown optimizer needs to test all combinations of markdown levels and markdown dates to determine which one generates the maximum profitability. However, real-world constraints need to be included. For example, a retailer that has in-store signage for a 25% markdown and a 50% markdown will not find a markdown optimizer that suggests a 36.82% markdown particularly useful.

(d) *No autopilot.* For most retailers, turning pricing control over to a markdown optimizer is sheer lunacy. A markdown optimizer is a critical input into markdown decisions, but visual considerations, merchandising considerations, and store execution considerations play an important role for most retailers. No one has yet built the markdown optimizer that can incorporate the right merchandising judgment into markdown decisions.

Bringing the three pieces together for improved profitability

Three steps are required to fully capture the markdown opportunity: (1) Avoiding markdowns through better allocation, (2) Anticipating markdowns in allocation, and (3) Optimizing the markdown itself. Too many retailers move straight to markdown optimization, fine-tuning markdowns that, in many cases, they could avoid or minimize through better allocation. These retailers will find that the impact of their initiatives is less than they hoped; they are leaving substantial margin dollars on the table. Retailers need to tackle the three pieces together to capture the full profit-improvement potential available.

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