Perspective

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The Power of Operational POS

From Managing at the Mean to Managing The Meaningful

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Originally published as:

The Power of Operational POS: From Managing at the Mean to Managing the Meaningful,
by Richard Kauffeld, Paul Leinwand, Johan Sauer, and Carter Utzig, Booz Allen Hamilton, 2007.

The Power of Operational POS

From Managing at the Mean to Managing the Meaningful

At the place where the first moment of truth occurs—the retailer's shelf—the competitive landscape is undergoing an accelerating shift. New capabilities are redefining how manufacturers and retailers work together to grab their share of customers' wallets. Central to this shift is the ability to leverage operational point-of-sale (POS) data to redefine how companies go to market, execute against their strategies, manage product availability, and drive behavior through measurement and incentives.

Operational POS data provides next-day visibility into which stock keeping units (SKUs) sold, in what store, at what price—and includes information about what inventory remains on hand. Having this information on a daily basis represents a sea change in the consumer packaged goods (CPG) industry: A 2006 survey conducted by AMR Research indicates that 56 percent of manufacturers require two weeks or more to sense demand at the shelf because of lagging POS data, and 19 percent require a month or longer.

This additional time to respond to demand translates into increased out-of-stocks, while limited insights into shopper behavior make it difficult to adjust go-to-market vehicles such as price and promotion in time to improve the outcome. Retailers compound the issue by typically providing POS data to their manufacturers a week or two after the sales have occurred, grouping the information into weekly buckets (sometimes with daily averages) by category at a regional level. Rather than managing to the meaningful—namely, what is happening to any given item at any given store on any given day—retailers and manufacturers are managing to the mean, using aggregate data that doesn't have the same impact on what happens at the shelf.

Today, however, the number of retailers that have the ability to share POS and loyalty data on a basis that is closer to real time, either directly (as Wal-Mart's RetaiLink does) or through third parties (such as VeriSign), has reached a critical mass that can no longer be ignored. In addition, manufacturers have access to a set of data storage and analysis tools that enable insights and alerts in close to real time. Those manufacturers that create the capabilities to capitalize on this more granular real-time data can create new, profitable growth platforms, reacting on Tuesday morning to Monday's shopper buying patterns with their retail partners (see Exhibit 1). Of course, capturing

Exhibit 1
Evolution of Capabilities Based on Operational POS Data

Existing Capabilities	Next-Generation Capabilities
Plan	Sense and Respond
Production Schedule	Production "Tuning"
Post-Event Analysis	Active Event Management
Representative Companies: Information Resources Inc., ACNielsen	Representative Companies: VeriSign, Market6, Vision Chain, Teradata

Source: Booz Allen Hamilton

the full advantage of operational POS data requires more than just quick delivery of information. It requires tailored business streams, process capabilities, and technology enablers—to create compelling value propositions for each retailer, manufacturer, and shopper segment.

Using Operational POS to Drive Collaborative Growth

According to a number of industry surveys, there appear to be three primary areas in which leading companies are profitably using operational POS data: reducing out-of-stocks (OOS), improving the performance of go-to-market vehicles, and improving in-store execution.

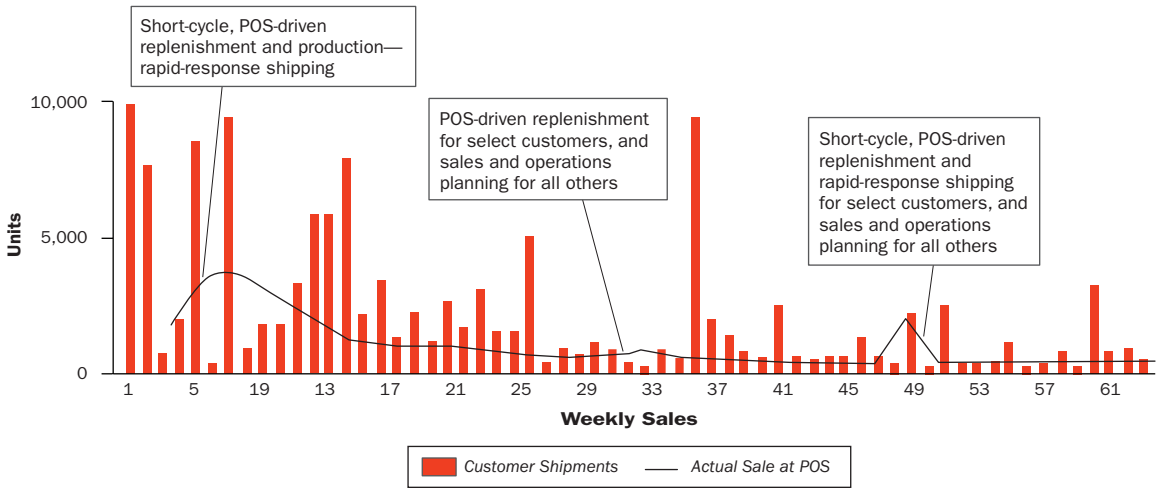
1. Reduce OOS. Despite years of refinement in CPG supply chains, OOS levels remain a serious issue. OOS levels have not decreased appreciably over the last three decades; most retailers report OOS levels of 5 to 10 percent for base demand, increasing to 5 to 20 percent for promotional items.

Supermarket and convenience retailer Giant Eagle and beverage giant Anheuser-Busch were facing just this issue, with out-of-stocks averaging 6.6 percent. Together, they developed a pilot program aimed at improving in-stocks at the shelf. Central to the program's success was a predictive modeling capability that used operational POS data, external causal data that shaped demand on a store-by-store basis, and on-hand inventories to create a 32-day forecast. This forecast, run daily for the next 32 days, was translated into suggested orders, which were communicated to both the local distributor and store personnel so the entire value chain was operating on the same demand signal. The companies could collaborate on distributing products and assortments by store shelf in keeping with the demographics of each store and could plan how they would jointly manage both promotions and turn volume. As a result, Giant Eagle and Anheuser-Busch were able to reduce OOS from 6.6 percent to 3.4 percent, generating a 3 percent increase in sales of Anheuser-Busch products and in the category as a whole.

Another CPG company found, in studying its OOS issues, that the equivalent of 11 percent of promotional sales were missed because of OOS and that 77 percent of promotional OOS occurred during the middle of the promotion. The havoc caused by OOS can be even greater for new product launches because of the uncertainty of demand. To improve its return on the new titles and promotions, one book distributor utilized POS-enabling technologies to improve OOS and the amount of capital employed (see Exhibit 2).

Using operational POS data to track sales in near real time, companies can make appropriate changes to

Exhibit 2
How to Use Operational POS Data for One SKU



Source: Booz Allen Hamilton

fill-in orders to ensure improved in-stock conditions. Early in the product life cycle, the goal should be 100 percent in-stock to capture the important but highly unpredictable volume in the first week of sales. Later, as demand cools, the replenishment model could be termed sense and respond; as one item sells, another is shipped to replace it, with promotions carefully planned to ensure adequate inventories. In this particular case, through the use of POS data, the company increased sales by 2 percent versus plan.

By automating analysis at the store level after every event, companies can continually improve their store-level planning and execution. For instance, a fresh-produce company was able to improve promotional returns by reducing OOS during key promotion periods by pulsing promotional inventories to specific stores within a chain.

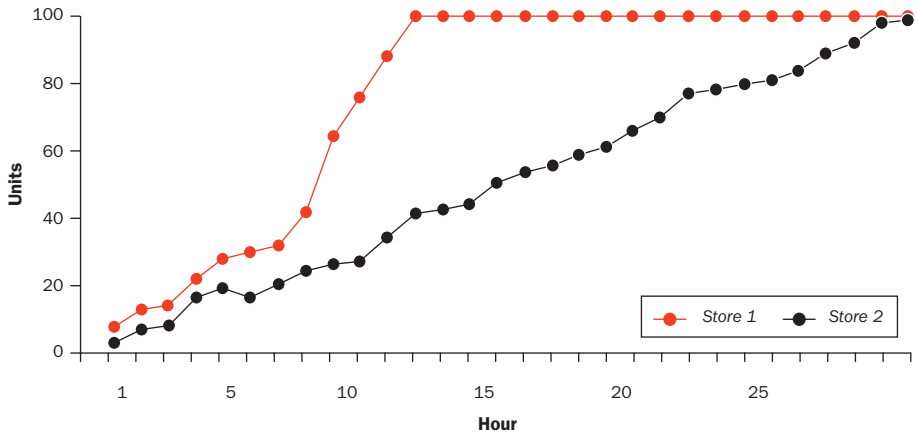
2. Improve Go-to-Market Vehicle Performance. Most go-to-market events—promotions, pricing, assortment, packaging—are currently planned at the mean, targeting an entire retailer trading area with limited consideration for tailoring events at the individual store level. Although this approach reduces complexity, it also reduces the event's return on investment for both retailer and manufacturer.

Utilizing operational POS data at the store level at a higher level of granularity can unearth new shopper insights that aggregated data might not. A music distributor, for instance, redesigned its store assortment after analyzing POS information to identify new store clusters, resulting in a 2 percent increase in sales performance.

Store-level POS data allowed another manufacturer to evaluate how quickly its products were being purchased to improve the return on "trial and switch" or "incremental" volume events. This was extremely important given the short duration of the promotion, the limited number of promotional units to be allocated to retailer locations, and the importance of these events to brand results (see Exhibit 3).

More detailed POS data, which looks at sales by item, by store, and by day, will help identify differences among stores that appear to be comparable when they are examined using only category, regional, and monthly or weekly data. Combining store-level POS analysis with loyalty information allows for even more precise modeling of assortments by store and by cluster. Layering in additional information about shoppers, the purposes of their shopping trips, and the contents of the shoppers' baskets provides a new level of precision to drive assortments, pricing, promotions, and product design decisions. A number of beverage, food, packaged goods, and tobacco companies saw a 2 to 3 percent increase in sales and a 1 to 3 percent margin

Exhibit 3
Sell-Through Velocity by Store for a Promoted Product



Note: The promotional allocation was 100 units per store.
Source: Booz Allen Hamilton

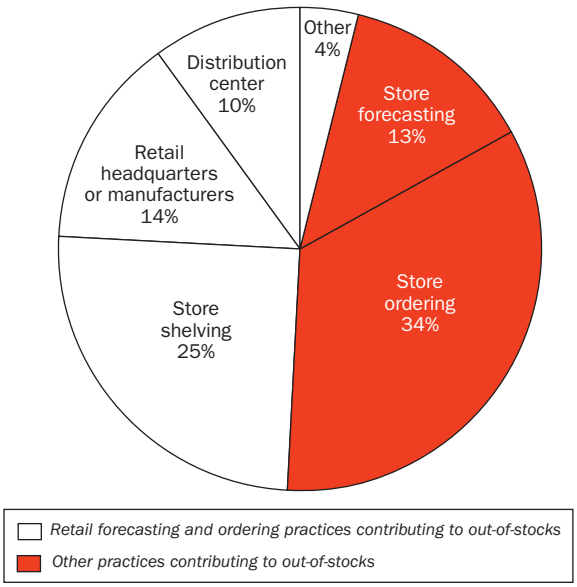
increase when they employed these capabilities alongside a retailer and shopper-centric operating model.

3. Improve In-Store Execution. Three-quarters of all OOS conditions are caused by poor retail execution. Operational POS data enables new insights into which go-to-market events, which new items, and which stores cause these difficulties so the issues can be addressed, often in real time (see Exhibit 4).

Improved planning can, for example, help companies more closely match promotional display size with anticipated consumer demand at a particular location to minimize OOS and excess inventories after the promotion that result in excess allowances, reclamation, or returns. However, better planning on its own doesn't guarantee a successful promotion; event criteria might not be correctly executed or a competitor might launch a counter-promotion. During an event, operational POS information can help identify retail locations that are noncompliant and rectify problems via an alert sent to the merchandiser force or to the retailer.

In other cases, manufacturers are using operational POS information to trigger a field sales call to evaluate abnormal situations, such as potential out-of-stocks, compliance issues, and deviations in predicted demand. Because field sales teams tend to visit low-volume stores less frequently, this intervention breaks the "self-fulfilling prophecy" of poor store performance. Operational POS data could identify untapped high movers. We expect that operational POS information will be used to drive wholesale and retailer incentive programs to help ensure execution.

Exhibit 4
Root Causes of Out-of-Stock Events



Source: GMA/FMA, "Retail Out-of-Stocks: A Worldwide Examination of Extent, Causes, and Consumer Responses"

Requirements for Scaling Operational POS Capabilities

There is more to scaling operational POS capabilities than simply gaining access to data. In our experience, four elements must be in place before companies can benefit from these capabilities: access to data, the capacity to collect and align it, the ability to rapidly analyze and assess it, and the agility to quickly act on the insights.

1. Access to Data. Although operational POS data has become more widely available, each manufacturer must negotiate with each retailer to gain access to the data. A fact-based discussion regarding the benefits of data sharing for both parties is the fastest way to gain access. In addition, a collaborative approach to analysis, insights, actions, and measures will help ensure that data sharing grows richer over time as new uses are discovered, leading to increased benefits for both parties.

2. Data Collection and Alignment. This element causes many programs to run into challenges. Collecting data requires that item and location hierarchies be aligned between manufacturers and retailers, and that the data recipient test the data for completeness and quality: Did all stores report? Are the values reasonable? Finally, it requires manufacturers to build and maintain a large, robust data repository, sometimes called a demand signal repository, that can safely store and process data at the speeds required to act on it.

3. Data Analysis and Assessment. Analysis must be done in real time to facilitate real-time decisions; this will help companies extract the most value from operational POS data. Traditional analytical

Exhibit 5
Questions for an Operational POS Strategy and Implementation Program

Which Metrics and Targets? ■ Business goals ■ Decision-making criteria	Which decisions to make?	■ Planning insights ■ Real-time performance monitoring ■ Evaluation ■ Settlement
	With what data, from which sources?	■ POS (direct, third-party) ■ Syndicated consumption and panel data ■ Shopper insights
	At what level of granularity?	■ Item/store/day ■ Buying point
	How are decisions made?	■ By role (which role, under what conditions) ■ By rule ■ By function
	How are insights acted upon?	■ By internal sales, brokers ■ By merchandiser ■ By retailer operations systems ■ By retailer staff

Source: Booz Allen Hamilton

methods that rely on statistics and models are giving way to pattern recognition and the detection of exceptions, which are applied to the data as it is received. These capabilities are well proven in the financial and government sector, but they are new to the CPG industry. Timely data assessment not only determines which insights are actionable, but it also allows manufacturers to distinguish between those actionable insights and mere "noise" in the system. Manufacturers may find themselves pondering, for instance, whether a 10 percent oversell on a promotion for one day is a problem or whether it should be flagged only if the oversell occurs for three days.

4. Fast Decision Making. Data and insights are of little value unless they can be acted on in a timely fashion. In most cases, new processes, roles, and decision rights are required to enable an organization to respond at the speed required to leverage operational POS data. Determining how the data is acted on is, of course, a central opportunity for collaboration with retailers, and the collaboration can happen in a variety of ways. If a manufacturer ships its goods via direct store delivery, the opportunity to act is quite good because the manufacturer's staff is in the store at least several times per week. If goods are delivered from a warehouse, a merchandising force, if available, can be directed to act on the highest-value opportunities in-store. In some relationships, the manufacturer can edit orders generated by the retailer's computer-assisted ordering system, something we call vendor-managed inventory to the retail shelf. Operational POS data is transforming how decisions are made today in the CPG industry (see Exhibit 5).

The challenges are great, but early market indications suggest that the rewards are greater still. Regardless of the path an organization takes to using operational POS data, the first challenge is to begin the journey.

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10/08 Printed in USA