Driving Profitability Through Assortment Optimization

Retailers can gain competitive advantage by comprehending, monitoring and optimizing assortments at the macro, store cluster and store levels.
RETAILERS FACE DIFFICULTIES ASSESSING PRODUCT SALES PERFORMANCE, MAINTAINING a competitive mix and hitting revenue and profitability targets due to inadequate information regarding store segment, individual store and overall assortment composition. This presents an opportunity to gain competitive advantage by implementing technology with the ability to increase the understanding and optimization of assortments, including product assortment performance at different store segments, as well as monitoring assortment performance.

The essence of store assortment is straightforward. “Assortment planning at a retailer is to find the optimal set of products to be carried and set the inventory levels of each product,” write A. Gürhan Kök of Duke University’s Fuqua School of Business and Marshall L. Fisher of the University of Pennsylvania’s Wharton School in Demand Estimation and Assortment Optimization under Substitution: Methodology and Application. “Two main features of the assortment planning problem,” they write, “are the following: Consumers may be willing to accept a substitute when their favorite product is not available and therefore the demand for a product depends on the availability of other products.” And, “there is a limited shelf space assigned to each product category.”

That’s the bare essence of the challenge presented by store assortment optimization (SAO). Traditionally, retailers have relied primarily on their personal experience and comparing competitors’ assortments in their efforts to meet this challenge. In a relatively uncompetitive marketplace, this approach may appear to be adequate, but in markets with stronger competition and for retailers with multiple outlets serving disparate markets, this “going by the gut” technique is no longer an acceptable approach.

However, until fairly recently, store assortment optimization was, by and large, more art than science. The technology required to process and analyze the huge amounts of data required to see historical trends and project the future on an item-by-item, store-by-store basis was prohibitively expensive, if it was available at
all. But as the technology has matured, it has become more powerful and affordable, so that there are now technological solutions available to even the smallest of retailers that allow them to optimize the store assortment at both a macro and a micro level.

Not surprisingly, forward-looking retailers are realizing this and taking advantage of the technology by implementing such solutions. Top-tier retailers Kmart (www.kmart.com) and Land’s End (www.landsend.com) have both deployed analytic solutions that enhance store assortment optimization within the past few years. And they’ll soon have company. The 15th Annual Retail Technology Study, Retailing Shifts into High Gear, presented by RIS News and Gartner, reports that 64 percent of respondents have up-to-date assortment planning technology in place, have started but not finished a major tech upgrade, will start a major tech upgrade within the next year or will start a major tech upgrade within the next two years.

While this shows that retailers are understanding the benefits of implementing store assortment optimization technology, it also shows that there is room for retailers to gain significant competitive advantage by joining the ranks of the implementers by deploying the most advanced technology available. By doing so, retailers position themselves to measurably increase profitability and reduce costs – a one-two combination worthy of a champion.

“ASSORTMENT PLANNING AT A RETAILER IS TO FIND THE OPTIMAL SET OF PRODUCTS TO BE CARRIED AND SET THE INVENTORY LEVELS OF EACH PRODUCT.”
- Kök and Fisher

OPTIMIZING THE ASSORTMENT MIX
Successful store assortment optimization requires the ability to receive up-to-date information on product performance across the organization, as well as the ability to analyze sales and profits – both current and historical – with trends and performance against target. Only then can retailers apply benchmarking to the assortment for optimal performance.

In its Market-to-Order Research Agenda, Next-Generation Retail – The Post Wal-Mart World, the Aberdeen Group writes: “Revenue and profit are achieved through optimal product selection, placement and timing. The proactive merchant uses science to supplement intuitive processes and take the grunt work out of running the enterprise. The merchandising infrastructure of the 21st century is enabled by best-in-class applications that provide predictive forecasting and advanced analytics.”

Most retailers’ POS systems obtain and deliver all the data needed to take the first step toward improving total business performance, but simply collecting the data is only a start. The data must be analyzed. Products must be categorized, segmented and identified as stars or dogs (and as many gradations between those two endpoints as is appropriate), based on:

- Percentage Value Share
- Percentage Growth
- Percentage Share
- Share of Profit
- Share of Volume

Establishing these basic benchmarks allows a retailer to begin developing insight into his or her assortment and its performance. It then becomes possible to rank the category change performance of each and every category based on sales, value, profit, profit margin percentage and sales per item. Sales achieved can be measured against sales targets for specific time periods.
This, in turn, leads to greater understanding of the sales performance of the entire product range, giving the product manager knowledge of the contribution of products to category performance, as well as which elements of the portfolio are generating the most – and the least – revenue. Armed with this understanding, the assortment can be adjusted and aligned to actual, rather than perceived, demand. This is exactly what Dale Achabal, Ph.D., L.J. Skaggs professor and associate dean of Santa Clara University’s Leavey School of Business recommends, telling RIS News that for optimum assortment planning, retailers need to compare actual and projected sales and to seek to better understand preferences, becoming “more proactive, less reactive.”

Assortment-planning solutions that incorporate both historic visibility and predictive capability, using tools such as the Boston Consulting Group Growth-Share Matrix (to show where products are in their life cycles) and Pareto techniques (to identify the most successful products) are recommended because of these solutions’ ability to deliver timely information, empowering decisions regarding listing, de-listing or immediate action to improve the mix and drive profitability.

**IMPROVING CHANNEL-STORE VISIBILITY**

Improved assortment performance requires near real-time visibility into specific channels and store segments. This information enables the retailer to react to customer demand and adjust the assortment mix, as well as optimizing sales channels by comparing product performance by channel.

In today’s multi-channel retail world, it’s not enough to understand general product assortment performance of the entire enterprise. The “Proactive Merchant,” as defined in the Aberdeen Group Benchmark Report, *The Proactive Merchant: Anticipating Consumer Demand*, by Paula Rosenblum, Aberdeen Group director of retail research, is one that embraces “the use of science-based procedures, including science-based forecasting tools and techniques to optimize financial and assortment planning, buying, allocation and replenishment, and pricing and optimization.”

(Source: Business Objects)
Those “science-based” tools and techniques, then, allow the forward-looking retailer to drill down into the data to receive granular information regarding not just overall product performance, but product performance by channel, by store cluster and by store.

Along with that kind of detailed knowledge, these tools give retailers the power to, as with products, categorize channels – catalog, brick and mortar, online, etc. – into stars and dogs based on criteria that include:
- Percentage Value Share
- Percentage Share
- Percentage Growth

The value of such categorization is clear. In Next-Generation Retail – The Post Wal-Mart World, the Aberdeen Group states emphatically, “Today’s empowered customers expect a seamless, immersive multichannel retail experience. However, integrating channels requires both technology investments and organization behavior changes.” This means that there is no room for guesswork in terms of assortment planning, across all channels. The only way to accurately and successfully optimize the assortment is to implement one of the new-generation technologies, such as Business Objects’ Store Assortment Optimization analytic solution.

Such solutions deliver the ability, for example, to select stores, store clusters or channels, and compare performance over selected periods, using metrics that include units sold, sales value, total profit value and profit margin percentage. Retailers can then clearly see which outlets are over- or underachieving, and which are experiencing the greatest changes in profits and sales (positive or negative). This knowledge enables improved assortment to better drive sales and profits based on accurate historic data and projected future trends.

Just as important, retailers using science-based tools and techniques are able to clearly see unsold products so that promotional activity can be activated or to product transfer can be initiated across channels or outlets. “Recent trends have shown that 10% inventory reductions, 1-point increases in turn and 2-3 point improvement in margin are concurrently possible when these advanced planning techniques are applied,” according to Terry J. Donofrio, president of Retail Systems and Service, in the RIS News Retail Executive Digest entitled Mastering the Best Practices for Planning Categories, SKUs & Revenues. “In addition, retailers that apply these tools and methods are well-positioned strategically for future growth and competitive pressure.”

PROCESS DASHBOARD AND MONITORING
By monitoring the assortment process, organization-wide consistency is increased, as well as individual efficiency, resulting in gains in overall productivity and profitability. Monitoring the review process ensures that key tasks are carried out in a timely manner, and those tasks can be tracked by category for maximum effectiveness.
Dashboards are the most effective monitoring tools currently available, providing user-friendly visibility of business processes. By implementing an assortment optimization solution that incorporates process dashboards, retailers’ key personnel are able to quickly and easily understand – by segment – how outlet performance changed over a period, and how existing and new outlets compare to each other, providing critical insight toward potential expansion or contraction planning.

In addition, monitoring through process dashboards allows retailers to identify changes in sales and profits across the enterprise on a periodic basis, clearly showing improvement or deterioration. This enables understanding by product segment that can be critical to the decision to increase product development or, conversely, product de-listing.

The ability to see and react quickly via process dashboard can deliver huge benefits. According to Alexi Sarnevitz, AMR Research research director, in Retail Technology Decision for 2005: Time for Tools, “A key priority for retailers in 2005 is to tailor market product assortments in order to best meet local consumer demand. This allows retailers with double-digit sales growth to see up to 10 basis points of incremental margin and 20 percent-plus inventory reductions when this strategy is adopted.”

This explains why, according to the 15th Annual Retail Technology Study, Retailing Shifts into High Gear, presented by RIS News and Gartner, although only 23 percent of respondents currently have advanced analytics dashboards up-to-date tech in place or have already started but not finished a major tech upgrade, “a significant 27 percent will upgrade in two years.”

Joining that group of retailers who have already deployed assortment optimization technology incorporating process dashboards or plan to deploy soon is a key to gaining competitive advantage. With the technology in place, retailers will be able to compare post-launch product revenue by segment as well as historically, enabling positive future launch projections.

### REAL LIFE RETAIL

The power of dashboards is on display at Somerfield (www.somerfield.co.uk), the leading supermarket retailer in the UK. Working with Business Objects, Somerfield has deployed a “balanced scorecard” dashboard, providing senior executives as well as store managers a “single source of the truth” through a dynamic, enterprise-wide assortment view, including all 1275 Somerfield stores. Using this dashboard, Somerfield is able to align assortment in near-real time, reducing stockouts and increasing promotion effectiveness.

### BROAD INTEREST IN MERCHANDISING TOOLS

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(Source: RIS News/Gartner)
CONNECTION & INTEGRATION

By implementing technology such as that offered by Business Objects’ Store Assortment Optimization solution, which integrates assortment optimization, channel visibility, and process monitoring capabilities, retailers will be able to increase profitability, improve visibility into assortment composition and store cluster assortments, and establish clear category review processes. Retailers implementing such technologies can expect to gain competitive advantage.

However, the window of opportunity for gaining that advantage is rapidly closing. In the 15th Annual Retail Technology Study, *Retailing Shifts into High Gear*, presented by RIS News and Gartner, both advanced analytics dashboards and assortment planning made the list of Top 10 Retail Technologies for 2005. “Volumes could be, and have been, written about the opportunities these applications provide,” writes Jeff Roster, Gartner vice president, global industries, retail, in *Retailing Shifts into High Gear*. “Suffice it to say that the rapid rise of each of these solutions is a strong indicator of the ever-increasing rate of technology adoption in the retail industry.”

Therefore, now is the time for forward-looking retailers to seize the opportunity by implementing these solutions – before their competitors do so. In particular, retailers should seek out and deploy solutions that include the following features:

- Process dashboards to create and follow disciplined processes by listing tasks within the processes, link relevant analytics to each task and alert users when tasks are not completed
- Guided analysis that enables users to move between related analytics to find answers to specific questions
- Analytics based on solid industry knowledge in order to deliver accurate answers to specific queries

A solution that incorporates those three features, along with the ability to provide an optimized assortment mix, in-channel visibility and detailed monitoring will drive revenue and profitability by improving company-wide, store-segment and individual store category assortment compositions.

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**TOP 10 RETAIL TECHNOLOGIES FOR 2005**

- Category Management: 52%
- Price/Revenue Optimization: 51%
- POS Software: 50%
- Advanced Analytics Dashboard: 50%
- POS Hardware: 49%
- Replenishment/Inventory Control: 49%
- Promotion Management: 49%
- Loss Prevention: 48%
- Forecasting: 48%
- Assortment Planning: 47%

(Source: RIS News/Gartner)
ABOUT BUSINESS OBJECTS
Business Objects is the world's leading business intelligence (BI) software company. With more than 30,000 customers worldwide, including over 80 percent of the Fortune 500, Business Objects helps organizations gain better insight into their business, improve decision-making and optimize enterprise performance. The company's business intelligence platform, BusinessObjects™ XI, offers the BI industry's most advanced and complete platform for reporting, query and analysis, performance management and data integration. BusinessObjects XI includes Crystal Reports®, the industry standard for enterprise reporting. Business Objects has built the industry’s strongest and most diverse partner community, and also offers consulting and education services to help customers effectively deploy their business intelligence projects.

Business Objects has dual headquarters in San Jose, Calif., and Paris, France. The company’s stock is traded on both the Nasdaq (BOBJ) and Euronext Paris (ISIN: FR0004026250 - BOB) stock exchanges. More information about Business Objects can be found at www.businessobjects.com.