



## [ItoI Magazine](#)

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### **Merchandise Optimization: Giving customers what they want**

My friend Carmen worked for a number of years at Ralph Lauren as a merchandising planner, and once, while sipping cocktails, she recalled every detail of how she charted the volumes, styles and sizes of Lauren garments needed to fill each store. Based on company-wide and regional sales, she mapped out these forecasts every week. From her charts, she also determined which items should become marked down based on stagnant sales. After the explanation, I remember the puzzled look on her face when I asked her if Ralph Lauren considered individual customer preferences or personal buying histories when forecasting and planning merchandise.

Unfortunately, Ralph Lauren is not alone. Such customer data-driven merchandising has yet to exist for most retailers. In fact, Hung LeHong, research director at Gartner Inc.'s G2 practice, says customer preferences have very little to do yet with the merchandising process, in general. Only in recent years has the process of forecasting and allocating evolved from manually charting merchandise to using software to build analytical models that can predict sales months in advance.

Noha Tohamy, a Forrester Research analyst who focuses on logistics and the supply chain, says that the best way for manufacturers and retailers to become and stay profitable is to understand their customers so that every transaction paves the way for future transactions by building customer loyalty. This ability to make fast and accurate predictions centered on the needs of the customers will yield less inventory, lower prices and loyal customers.

### **Balancing supply and demand**

Discounting and forecasting processes are still based on group sales, not individual transactions. "There are so many factors on the demand and supply side that affect this consumer experience that consistently attaining this goal is a miracle-or more hopefully-a very complex science," Tohamy says.

Most retailers look at their ranking reports on Monday morning, and simply attach discounts to items that are moving the slowest, LeHong says. He surmises that if someone from marketing would provide information that shows that although item "B" is listed on the report as a slow mover, some "A" customers still buy it. So if the store manager removes the "B" items, the retailer may lose eight customers. "That kind of integration doesn't exist today," he says. "The retailers that are doing it are using an Excel spreadsheet, rather than using a sophisticated data analysis. If you look within a retailer's operations, the people who run all this customer information are typically marketers. They should take their data and say hey, our top customer quintile is buying these types of items in the stores; hence this is how we should sort our stores. Not many retailers are doing that today."

The main hurdle to incorporating customer preferences is that most retailers still haven't figured out how to predict demand based on the thousands of other factors that affect it. "For those who predict demand, it's a challenge with all the promotional events that happen. Also weather is a factor, as well as supply-chain constraints, closed ports and vendors not delivering on time," LeHong says. The second biggest challenge is the sheer volume of Stock Keeping Units (SKUs) that exist in stores.

Tohamy suggests that retailers should start collaborating with their suppliers to ensure that they not only gain visibility of inventory, but have a well-defined process for reacting to fluctuations in supply and demand fast enough to shield the consumer from the problem of not finding exactly what they're looking for when they need it.

Merchandisers, however, are starting to make small advancements in the way they plan, allocate, replenish and price products and services. No longer does a merchant have to rely on instinct to make pricing and promotion decisions. Traditional supply chain vendors, such as I2, Manugistics and Logility, as well as retailer-focused software providers, such as MarketMax, ProfitLogic, 4R and DemandTec, provide the analytics layer to merchandising execution technologies that are enabling retailers to use granular data to plan inventory. The space typically is referred to as merchandising optimization, or merchandising technology, and is still fluid in what it encompasses.

According to LeHong, merchandising technology vendors typically offer solutions that intend to effectively manage inventory and help retailers attach correct prices. But no size fits everyone. Short-term lifecycle product retailers, such as fashion apparel and long-term lifecycle retailers, such as grocery stores, use varying merchandising strategies. Short-term lifecycle companies must rely on assortment, allocation and markdown management; long lifecycle companies must focus on replenishment, promotional planning and store-space optimization.

When an analytics layer is attached on top of the planning piece, all retailers can predict volume based on last year's sales. They may divide the stores into three levels, assigning them each a letter, with "A" being the biggest sellers and "C" the smallest. They can then also adjust and plan the volumes according to store traffic. When a company analyzes the way it allocates, replenishes and prices products, it will benefit by getting the right product at the right time. LeHong explains, "You know how fast it's being sold, the peaks, the troughs, and you can be a lot smarter about replenishing inventory."

### **Not there yet**

Despite the fancy analytic layers now being attached to merchandising solutions, true optimization capabilities have yet to exist in the marketplace, LeHong claims. An optimization layer, he says, predicts the future with pinpoint accuracy. Based on a combination of factors (weather, customer preferences, seasons), retailers can conclude the optimal replenishment schedules, assortment plans and allocation. "This is the most advanced level, but there are not many retailers using that today. In the merchandising process itself, most companies are in the planning level entering into the analytics level, and only a handful are piloting true merchandising optimization," LeHong says.

Tohamy explains that a sophisticated level of analytics or optimization is required to find the granular data and to model complex scenarios, such as measuring cross-price elasticity among products and a promotion's profitability. "A quality solution needs to enable consensus-building and collaboration, both among different functions and among different partners."

### **Building momentum**

LeHong says that integrating customer preferences into optimization and analytics will emerge in two to three years. Companies must first tackle the initial hurdle of getting merchants to actually start collecting and using customer data. Many, LeHong says, still need to build data warehouses to start funneling the information into a central repository. Tohamy names three factors that will help to build momentum for incorporating customer preferences into a merchandising-optimization solution. First is the proliferation of new products. Second are shorter product lifecycles and third are the massive amounts of data now available and waiting to be analyzed. Vendors must develop a solution that takes into account the thousands of factors that contribute to planning inventory.

One solution that may serve as the impetus for incorporating customer preferences into merchandising is a wireless microchip that has been used for years by highway systems to rapidly move vehicles through tollbooths without transfer of paper money.

It's called Radio Frequency Identification (RFID) technology, and it is now being used to track inventory in supply chains at every stage of the product lifecycle to create efficiencies for customers in retail centers. Because the chips contain a large, reusable space that incorporates highly targeted data on each product, retailers will be able to offer dazzling one-to-one perks and may eventually help retailers to send individual customer shopping preferences in real time to the manufacturing database.

In the New York City Prada flagship store, RFID readers scan RFID chips embedded into the clothing tags, triggering product information, such as material, designer and manufacturer, to pop up, providing the customer with ample information. LeHong says it's quite possible for RFID to also work in enhancing inventory forecasting and Tohamy says the real-time data that RFID will enable will only enhance the merchandising process.

Marshall Fisher, professor at the Wharton School at the University of Pennsylvania, feels that retailers haven't progressed much in this area since he wrote the Harvard Business Review report, "Rocket Science Retailing is Almost Here-Are You Ready?" three years ago. He says that most inventory-planning software is designed for products with long lifecycles. In the report, Fisher and his co-authors called merchandising an "economic vacuum" that suffers growing markdown losses while disappointing significant portions of customers who can't find what they want.

The report further states that retailers can't continue to ignore the billions of bytes of unused sales history that could help solve these problems. The next retail innovation, he predicted, would combine access to consumer-transaction data with the ability to turn that information into action.

That idea may not be far off. Momentum is building for inventory-planning solutions that will optimize based on customer sales, especially in the grocery and apparel segments. Two year ago, Gartner conducted a survey to find out where customer information sits within a CRM or marketing group and where companies see the information migrating in coming years. Sixty percent of retailers said customer data eventually would enhance store opportunities and merchandising. "This gives us a sign that they know that what we talked about needs to happen," he says. "They just haven't done it yet and there are no tools to do it right now....Just getting down the basics of merchandise planning and execution is the priority."