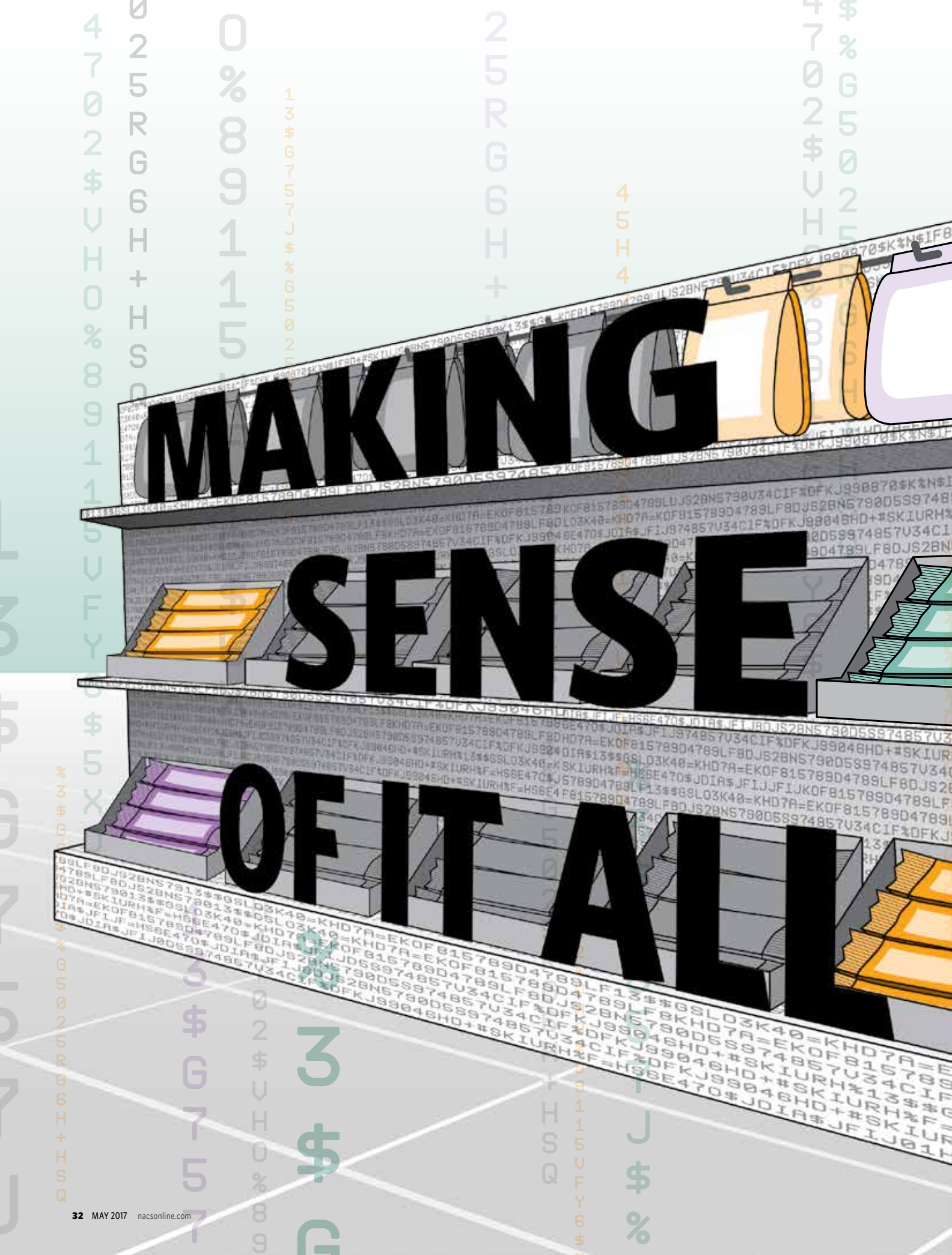

MAKING
SENSE
OF IT ALL

Leveraging the power of basket-level insights to drive sales and profitability.

By Tom McDonald and Lea El Hage

The introduction of category management nearly three decades ago marked a turning point in how retailers and suppliers approach merchandising, shelving and assortment planning decisions. Today, thanks to the emergence of new industry dynamics and fierce competition, that process is now at an inflection point. The ever-changing shopper, an explosion of new data sets (think mobile), the dramatic decline in data storage and processing costs, the development of analytical tools that allow quicker insight generation and the growing importance of e-commerce have all brought dynamic change to the discipline.

Shoppers are more diverse—and even more time-starved. Equally important, today's shopper has limitless information about product choices. The smartphone has put information at their fingertips and apps have allowed consumers to make better and more informed decisions. The U.S. population has undergone tremendous demographic changes that have dramatically changed product choices and made localization of distribution a key sales driver. As a result, it has become increasingly difficult for brands to market to the changing population in cost-effective and tried-and-true ways.

In addition, an explosion of data has emerged from household panels, shopper studies, loyalty programs and the digital footprints customers leave on the internet journey to purchase. Many retailers with loyalty cards know a lot about their shoppers—but their shoppers also know a lot about them.

The CPG community also has an astounding amount of data, with more being surfaced every day. No category management practitioner—neither retailer nor manufacturer nor solution provider—has managed to integrate all this information into a comprehensive approach.

What's New

Enter the next wave of category management. The new industry standard process is a holistic approach toward developing a plan based on data analysis, a plan that generates insights that lead to strategy development and tactical success models.

The process looks to enhance the workflows created in traditional category management by using new data sets combined with the cutting-edge abilities of new data warehouses and analytic tools. Among these improved data sources are complete store-level and basket-level transaction data from all stores regardless of loyalty. Instead of relying on panel or market-level data, which can be directional due to low sample sizes below the national level, retailers and suppliers can analyze more relevant location-specific data.

In addition, suppliers can now measure activities such as in-store displays and coupons, for example, across custom time periods instead of relying on weekly syndicated aggregates. This data provides extraordinarily valuable insights into brand and item loyalty, substitutability and shopper worth.

A New Player

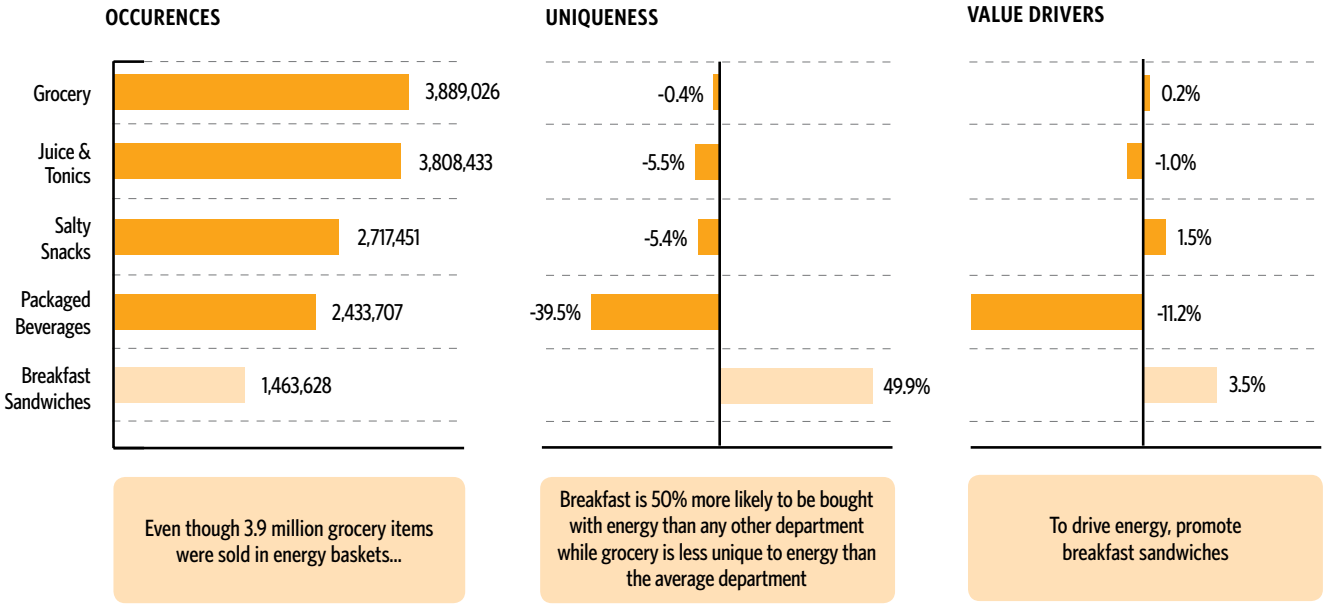
Fortunately, sophisticated new technology has even facilitated an artificial intelligence application to the process to make sense of the data and its implications—a centerpiece of Amazon's strategy to automate decisions. The breakthrough is in the application of new analytical techniques to the data, using vastly more sophisticated software and cloud-based hardware. These tools allow practitioners to isolate the effect, and therefore apply rigorous test and control measures to determine the ROI of various marketing decisions (price, offer type, communication method, promotion, for example), and to do so by retailer, by market and by competitor. Software technologies are also enabling automatic updating of reports created from multiple data sources.

One of the new technology platforms used to drive the process and shopper insights was developed by Chicago-based SwiftIQ, which helps retailers and their vendors generate growth by accessing highly granular basket-level insights. SwiftIQ uses high scale on-demand processing and artificial intelligence to convert billions of records of retail transactions into prescriptive and predictive analytics to optimize store-level execution, such as category management initiatives, promotions, customer experiences, merchandising actions and pricing strategies.

Basket-level transaction data is the ultimate source of shopper and location data to improve store-level sales, inventory and category management for the following reasons:

- **Deeper data granularity:** Syndicated data platforms typically use modeled/theoretical data, collect basic sales information only from items that have UPCs, are aggregated to a "week ending" number and are typically based on a limited sample of stores. Hence, they are reliable

CATEGORY-LEVEL AFFINITIES TO ENERGY DRINKS



(Source: SwiftIQ, www.swiftIQ.com)

for high-level directional insights, but nothing tactical. In contrast, full store basket-level transaction data allows for complete store coverage and basket-level analyses such as cross-purchase correlations, basket size, seasonality and dayparts (to know when to run or target offers) and they analyze non-UPC items such as foodservice, which are critical for retailer profitability.

- **Speed to insights:** Systems that can process basket-level data on-demand can also handle real-time data answers.
- **Data output:** An ability to access and measure basket composition and affinities (what items have been bought together), basket size (number of items and amount spend), dayparts (time of the day and day of the week/month/year), and customer acquisition and engagement is key.
- **Type of insights:** The key to growth lies in the ability to generate insights that are predictive and prescriptive. Basket-level data does not only identify an issue but enables recommendation and action plans to overcome and anticipate issues. With basket-level insights, retailers and brands can build profitable bundles and measure the ROI on promotions, displays and media based on full-store impact, not just sales of the item that was promoted.
- **Profitability:** Basket-level data enables profitable bundle and promotion analyses versus what is possible with sales data.

"[SwiftIQ believes] the future is enabling brands to access basket-level data, supplementing their internal data to enrich a retailer's data and automating frequent analytical workflows to optimize stores, merchandising and supply chain with continuous measurement and category management processes," said Jason Lobel, founder and CEO of SwiftIQ.

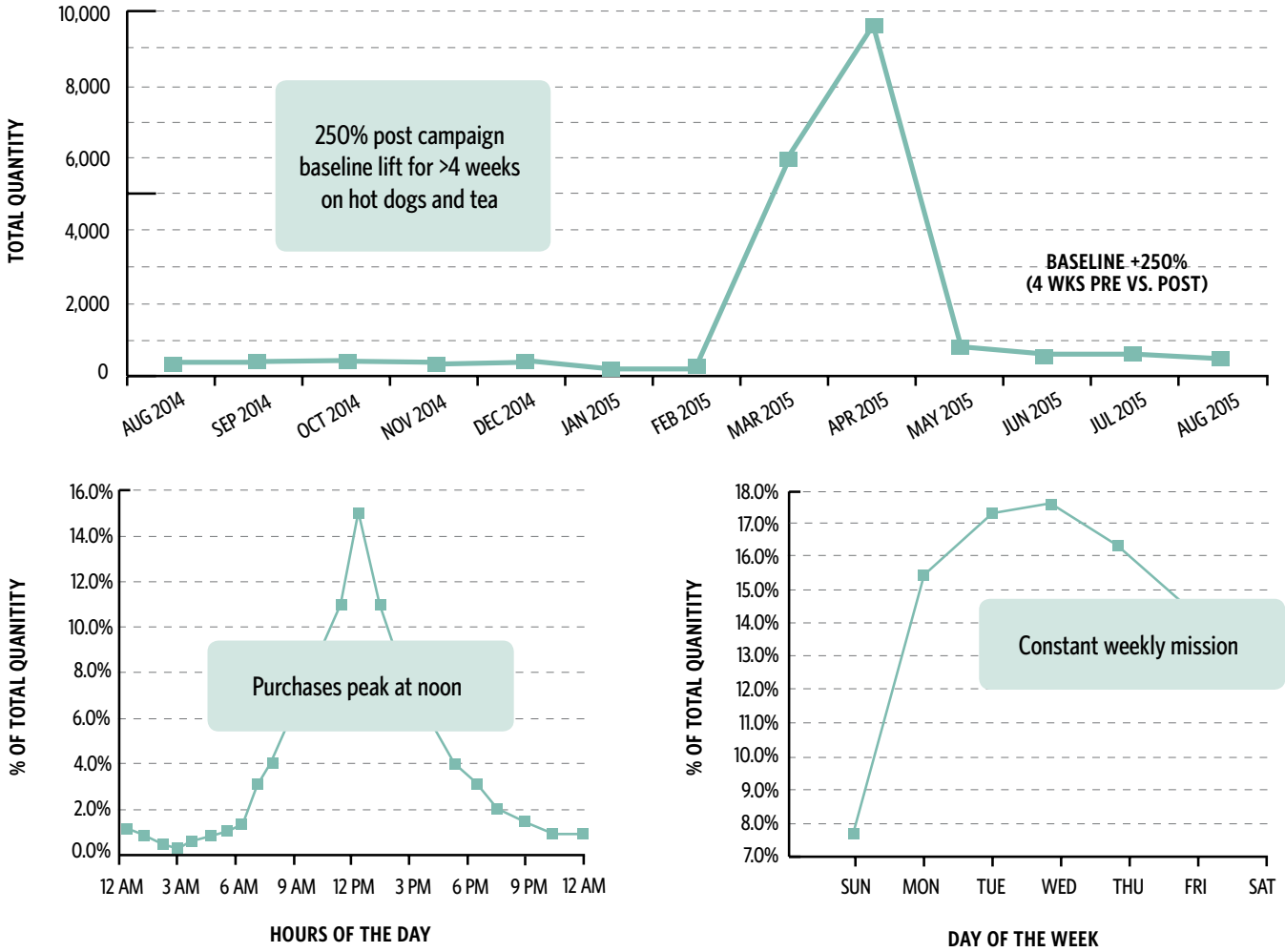
The ability to analyze billions of transactions on-demand, including performance trends, cross-purchase correlations, basket size, seasonality and dayparts allows retailers and suppliers to gain tremendous insight into shopper behavior. Retailers can evaluate complete basket data in seconds—even on-the-go from mobile devices. For large chain convenience stores that generate more basket-level data in a single day than would fit in the entirety of Excel, this new process brings tremendous opportunity.

For Example: Affinities

A crucial shopper insight learned from analyzing the data is the power of knowing and then devising strategies based on magnitude and specific times when categories have an "affinity" or are more likely to be purchased together, versus the average category affinity.

Did you know that energy drinks in the convenience channel have the largest purchasing affinity with breakfast sandwiches, especially on Friday mornings? Breakfast sandwiches are 50% more likely to be bought with energy than any other department. For many retailers, this insight has driven product placement, better in-stock and promotion bundle decisions that have further driven sales. (See chart, "Category Level Affinities to Energy Drinks.")

MEASURING THE EFFICIENCY OF A PROMOTION



(Source: SwiftIQ, www.swiftIQ.com)

A category manager can use these tools to determine what category, subcategories, brands or items are the most relevant to influence the purchase of another item as well as what time of year and in which stores will the offer most likely drive incremental value.

The ability to determine short-term and long-term benefits of a promotion on shopping behavior allows retailer and manufacturers to make improved ROI decisions. The shopper insights generated from promotion and pricing analysis allow the industry to maximize sales and trade fund usage.

Tools from SwiftIQ can help determine how bundled promotions work overall and by each item, and even add the relevant shopper card data, if available, to determine loyalty and habit change. Shopper insights from these price point case studies also allow the industry at large to precision target shopper groups to drive ROI.

For Example: Promotion Effectiveness

Gold Peak Tea ran a two-month bundled promotion that combined a beverage purchase with a popular hot-dog foodservice item for a reduced price.

IN PARTNERSHIP

NACS is pleased to announce an exclusive strategic alliance with SwiftIQ. The collaboration will further advance NACS State of the Industry insights and bring significant shopper insights to the convenience marketplace. Look for more details about the partnership in coming months. Learn more about SwiftIQ at www.swiftiq.com.

Data shows the bundle sales spiked more than 50 times during the campaign. (See chart, "Measuring the Efficiency of a Promotion.") The promotion also managed to create a 250% lift over the pre-campaign sales baseline. The insight shows that appropriately bundled offers can drive tremendous sales growth during promotion, but even more importantly, alter future shopper behaviors. Spikes by hour of the day and day of the week illustrate that this product bundle is part of a "lunch-run" shopper mission and peaks mid-week.

"The Gold Peak case study is a good example of how we're starting to leverage insights to not just understand the immediate impact of a campaign, but also understand the long-term implications of our food programs," said Clint McKinney, group director category strategy at Coca-Cola. "Another good example is understanding how shopper behavior impacts our different promotional strategies and leveraging daypart data to understand the occasions our different packages are meeting."

McKinney explained that Coca-Cola's main category advisory objective is to "grow mutual value by helping our customers know more, sell more and grow more." The beverage brand can do that by delivering actionable insights and helping retailers to maximize assortment and space by being a strategic thought partner to drive category growth specific to each retail customer. "Rather than have a list of priorities that are important to us, we work back from what's important to our customer," McKinney said.

For Example: Package Size

In another case study driven by transaction data analysis, daypart insights were used to understand shopper behavior across multiple beer sizes and allow retailers to maximize in-stock and sales and profit.

Data unearthed that singles are sold consistently throughout every day whereas multipacks are bought in a very tight window (on Fridays), leading to a high out-of-stock risk. The solution: By aligning deliveries and flexing to meet demand, a retailer can better meets shopper needs through insight execution.

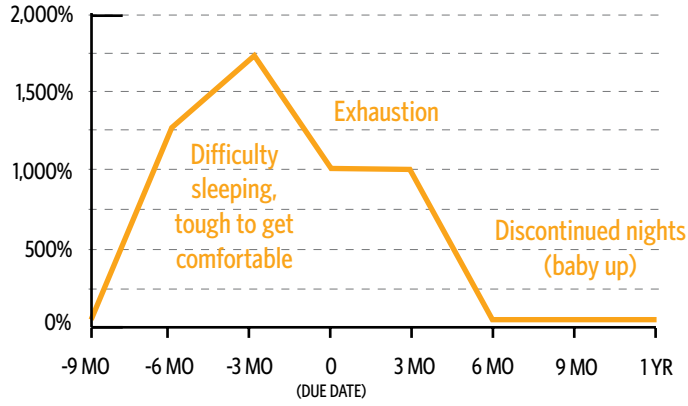
"One of the big focuses for Anheuser-Busch is to partner with c-store retailers from a category-centric perspective to ensure they have the right mix of beer segments within their outlets to meet customer demands," said David Vartanian Sr., director of national category management—convenience, package liquor and military for Anheuser-Busch. "The cold vault space at retail is beachfront property that can't be wasted and must be maximized appropriately with the right mix of value, premium, craft, import, specialty and FMB [flavored malt beverage] products."

With more than 93% of c-store shoppers buying cold beer it is critical to have the right selection with the right amount of supply on hand to meet demand. According to Anheuser-Busch, beer baskets average two times more total units than baskets

ANALYSIS OF A MOTHER'S PURCHASE BEHAVIOR

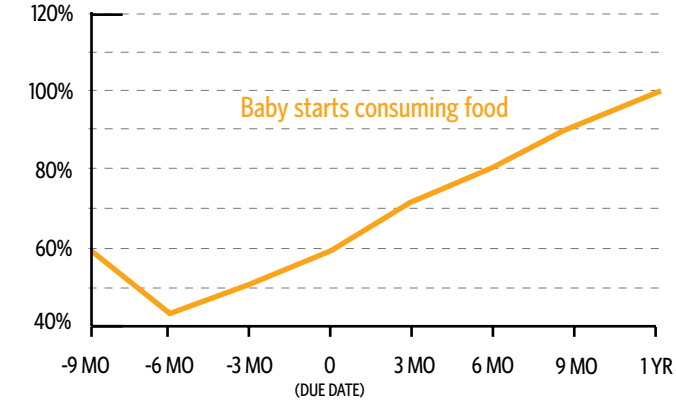
ANALGESICS/SLEEP AIDS

over-indexes 6 months before to 6 months after due date



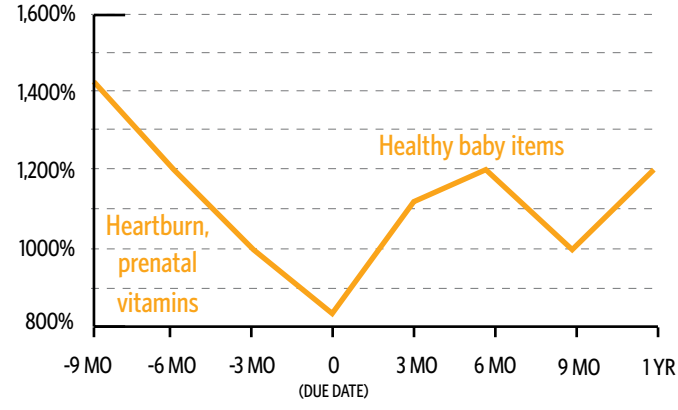
BABY FOOD

increasingly over-indexes after due date



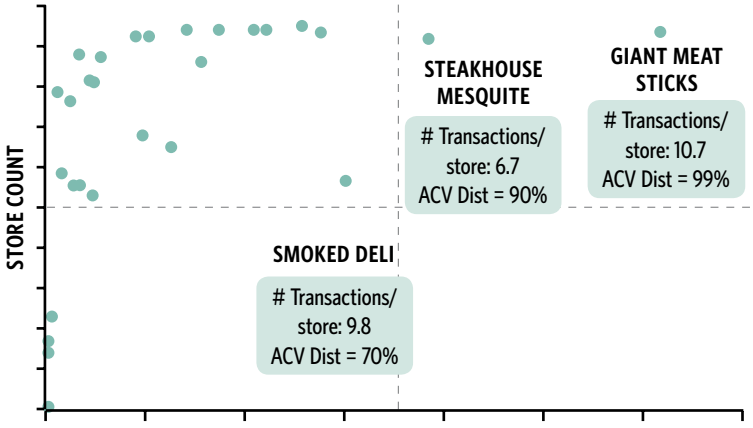
PHARMACY

peaks 9 months before due date, picks up again after due date



(Source: Swift IQ, www.swiftIQ.com)

OPTIMIZE DISTRIBUTION & ASSORTMENT RECOMMENDATIONS



(Source: SwiftIQ, www.swiftIQ.com)

without beer in them. "Our goal from a category perspective is to help the retailer capitalize on these consumer trips to grow their overall baskets. Power SKUs such as Bud Light make up one out of every four beer purchases within the c-store channel, so having the right amount of supply in the cold vault of this brand will be hypercritical for the retailer to capitalize on shopper trips and grow their overall baskets," said Vartanian.

For Example: Loyalty Data

Using loyalty data to better meet shopper needs is key to driving shopper satisfaction. This is especially true during life change transitions that create new shopping habits and needs. During pregnancy and for a year after the birth of a child, for example, a household may completely change shopping behavior in key categories such as sleep aids and pharmacy usage. Pregnant households can increase usage up to 10 times versus average in some categories. (See chart, "Analysis of a Mother's Purchase Behavior" on the previous page.) Retailers can accommodate these changes in need by using specific brands to offer tailored promotions and coupons that drive loyalty.

Analyzing the past purchase behavior of a pregnant woman allows baby food or baby care brands to target mothers and engage with them even before they give birth. This is made possible by identifying the strategic categories future mothers purchase. For instance, pregnant mothers start buying sleeping aids three months before birth because sleeping often becomes uncomfortable. Basket-level data can easily identify which sleeping aid brand—or even specific item—is the future mother's personal preference. In other words, the analysis of purchase behavior combined with basket-level data enables personalization and can influence the shopper's future behavior in real-time.

For Example: Distribution & Assortment

Distribution decisions can now be seen through a more robust shopper-focused lens, allowing retailers to fine-tune their local offerings. The chart, "Optimize Distribution and Assortment Recommendations," shows that a meat snacks item drives 50% less baskets per store but has 20% higher ACV (All Commodity Volume or all sales volume) than a similar item. The items have similar pricing so adding stores to the lower ACV item at the expense of the higher ACV item makes financial and shopper sense.

With loyalty card data, it becomes clear to see if these items have high substitutability scores for each other or other items in the category. If the lower transaction per store has no substitute, then the retailer may decide to keep it instead of making a switch.

Certain items in a convenience store drive considerable trips, and understanding basket data and the relative value of certain items is critical for categories—coffee, for example—that have low price points but generate enormous incremental volume.

Substitute analysis may also reveal another item in the category that has a lower transaction and higher substitutability score that should be reviewed. Analyzing transaction data—a combination of transaction, market basket, loyalty and substitutability numbers—allows a retailer to optimize distribution at the chain and store level.

The Path Ahead

Understanding shopper behavior down to the basket and time of transaction will drive sales for retailers and suppliers. These insights, when applied, lead to better in-stock, more efficient and effective promotions and greater shopper satisfaction.

Considering the pace of the change in the industry, the need for basket-level data is greater now more than ever. The quicker and more granular access to data, the more retailers and suppliers can expect higher return on investment and significant value creation. Overinvesting in power partnerships with each other to leverage advanced analytics and transform them into the right data is undeniably a key factor to win at retail. NACS

Tom McDonald is the chairman of the advisory board for the Category Management Association and on the advisory board for SwiftIQ. **Lea El Hage** is a product marketing manager at SwiftIQ.