Unspoken Shopper Behavior Predicts the Path to Growth
Market Disruptions Add Complexity, but Opportunities, for CPG Firms, Retailers

The world is changing at a frenetic pace and the impact these changes have had on the consumer packaged goods (CPG) and retail industry has been profound. Many of these changes have been positive, as they are enabling consumer activities that were once impossible:

Downloading an app that allows you to walk into a store, grab needed groceries, and then leave without having to visit a register to pay. Ordering pantry items on your voice-activated device in your pajamas in the middle of the night and having them delivered to your doorstep the very next day. Grabbing a prescription at the drugstore, and replenishing your milk and cereal without having to make a second stop. Remembering suddenly that guests are coming for dinner, ordering the ingredients online after searching for a recipe, and swinging through a pickup window to load the dinner ingredients into your car in two minutes or fewer. While these services and technology are all amazingly convenient for today’s busy shopper, the revolutionary change underway in the industry is only the tip of the iceberg.

The competitive landscape has changed drastically during the past decade and there are no signs of a slowdown, from new micro brand entrants to entirely new value chains (e.g., CVS and Aetna). E-commerce has been experiencing explosive growth. Amazon just bought Whole Foods, and Walmart acquired Jet.com, which then bought Bonobos and Shoebuy.com. IRI expects that click-and-collect alone will account for over $6.6 billion in retail sales by 2020, up from $400 million in 2016, roughly doubling sales in each of the next four years.¹ Indeed, the link between the digital marketplace

¹ Source: IRI Analytics
and brick-and-mortar stores is now inextricable. Customers expect retailers’ online and store experiences to be equally positive and complementary.

On the brick-and-mortar front, the drive to be where the consumer is when she is ready to buy is strong, as stores cannot afford to lose any share of wallet. Big-box retailers are experimenting with new formats—many of these small-format stores—that allow entry into more densely populated markets and along key travel routes. In fact, small-format stores are growing at three times the rate of population growth. European discounters have crossed the pond and are expanding further; Aldi is set to be the third-largest U.S. grocer (by store count) by 2022. Consumption of food away from home continues to grow unabatedly, directly competing with grocery sales dollars. Today, more than 55 cents of every dollar spent on food is spent outside the home. Millennials significantly over-index their generational counterparts with eating out, getting takeout, and using in-home food delivery services.

Technology is now embedded throughout the shopper journey—digital influences 77 percent of retail sales. The path to purchase is no longer linear; it has become an intricate web of blended digital and physical touchpoints leading to nearly instantaneous “buy moments.”

Consumers have more choices than ever in where to shop and what to buy—a recent study led by researchers at Washington University in St. Louis found that 83 percent of households regularly visit between four and nine chain stores in a given year to make their grocery purchases. And shopping is spread out across store formats and retail banners. Nearly two-thirds of households buy 30 or fewer categories exclusively at a single store (see exhibit 1).

At each buy moment, retailers are faced with the possibility of gaining or losing share of consumer spending. To survive, retailers must protect and grow share in an increasingly complex and competitive environment.

Doing so requires retailers to anticipate shopper needs and to quickly adapt—being ready when that ever-precious buy moment arises. Short of having a crystal ball, the best way to anticipate and adapt is to use today’s shopper behavior to predict sales performance tomorrow.

“**The most reliable way to forecast the future is to try to understand the present.**”

*JOHN NAISBITT, FUTURIST AND AUTHOR, MEGATRENDS*
Following a Structured and Proactive Three-Step Framework Drives Competitive Advantage

Technology has enabled shoppers to make their purchases in new and exciting ways. It has also equipped marketers with the data and tools they need to understand consumers—their needs, wants, and behaviors—in a deeper and more intimate manner. Leveraging this shopper knowledge to positively influence share of spending today can affect market performance tomorrow and steer millions of dollars toward your company.

With big data and analytic know-how, marketers can develop an in-depth assessment of marketplace behavior, understanding what their target shoppers are buying, where they are buying, and why they are making these store and brand decisions. With these insights, retailers and suppliers can create marketing strategies that influence the path to purchase and ultimate purchase decisions at key touchpoints. Approaching this work with a structured framework may give trade partners a lasting competitive advantage and pave the way for sustained growth.

• Understand which shopper behaviors are predictors of future market performance

• Monitor trends in shopper behavior and associated shifts in retailer market performance

• Activate against the most effective marketing levers to drive market performance

First, Herd the Cats

Having vast amounts of data and analytic horsepower is a great advantage indeed; but getting the right data pulled together, cleaned, and organized can be a lot like herding cats.

CPG marketers and retailers have long studied point-of-sale (POS) data to understand product movement. Panel data has been relied upon to bring more context to performance trends, such as sales contributions by demographic segment and shoppers’ brand-outlet switching behaviors. But the rise of big data, including weather, gas prices, illness prevalence, and data gleaned from digital activity has brought the study of shopper behavior to a whole new level. Consider this. Every minute²:

• Americans use 2.7 million gigabytes of internet data

• 3.6 million searches are conducted on Google

• 456 thousand tweets are sent via Twitter

• Tumblr publishes 74 thousand posts

² Source: DOMO, Data Never Sleeps 5.0

In native form, all of these data are separate. Pulling them together, synthesizing them, and creating an actionable story is no easy task.

To make things more complicated, the need for speed is becoming increasingly urgent. Consumers are demanding products, experiences, and conveniences that meet their unique and ever-changing needs and attitudes. And they’re voting with their wallets—retailers and CPG manufacturers that don’t deliver will quickly lose loyalty and share.

The struggle is real.
Centralized, Harmonized Data Can Sing

Creating an ecosystem that fosters the democratization of big data in a fast-changing world is complex. Getting the right infrastructure in place is prohibitively expensive and painfully time-consuming. IRI has invested the resources and expertise into the creation of a truly integrated data platform, known as the IRI Liquid Data® platform. Because Liquid Data features embedded statistical models, it brings consistency, simplicity, and reliability to the process of collecting, synthesizing, and analyzing data, setting the stage for rapid and informed decision-making across all users.

With this platform as the basis for further analysis, IRI’s Shopper Analytics team uncovered two important shopper indicators that can accurately predict future market performance – namely, retailer market share – weeks in advance.

Show Me the Money

The first key indicator is share of wallet. Simply put, share of wallet is the percentage of a household’s budget spent at a particular retailer, versus the household’s remaining spend at all other retailers within the market. Said another way, among a retailer’s OWN SHOPPER BASE, how many cents of every dollar did the retailer capture for any given category or product purchase by its shoppers during a given period? Did it capture five cents, 50 cents, or 80 cents of every dollar? Share of wallet may be calculated at the item, brand, or category level, all the way up to store level. In short, share of wallet represents real cash flow and – equally important – shopper loyalty, which clearly impacts the future lifetime value of the customer.

Maximizing share of wallet requires understanding and optimizing each of the underlying levers driving it (see exhibit 2). For instance, to maximize penetration, retailers must activate new customers and/or lapsed buyers, protect and grow existing buyers, and prevent lost buyers. The same idea applies to dollars per buyer. Retailers want to maximize trips per buyer, encourage

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EXHIBIT 2

Share of Wallet
basket growth, and develop a pricing strategy that finds the right balance of pricing and volume. Improving conversion is just as important for increasing share of wallet, as many shoppers frequently visit the same stores without ever purchasing products they purchase at competing stores.

In today’s chaotic and fast-paced marketplace, capturing share of wallet is a challenge, but it is absolutely critical. In a recent paper, “Delivering Growth Through High-Value Customers,” IRI observed that zeroing in on top-spending households within any given market allows retailers and CPG firms to capture greater share of wallet, thereby generating outsized sales growth across categories and stores, improved cash flow, and increased enterprise value (market capitalization). Firms that do not capture share of wallet from the highest-value customers actually shrink in value (see exhibit 3).

Share of wallet really is the ultimate growth performance indicator (GPI) in a competitive marketplace. After all, a customer may be very happy with your store (brand) and recommend it to others, but if that customer still spends as much or more of her/his budget at another competitor, your store is losing cash flow and enterprise value.

So, can share of wallet and its levers help you to win in the marketplace? From our analysis, we found:

- Share of wallet predicts dollar market share 13 weeks in advance of actual results.
- By identifying and monitoring the most important share of wallet levers by category, marketers can make on-the-fly adjustments to strengthen current and future market performance.

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**EXHIBIT 3**

Public Grocery Company Market Performance

<table>
<thead>
<tr>
<th>High-Value Customer Share of Wallet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Share of Wallet of High-Value Customers</td>
</tr>
<tr>
<td>YOY Market Cap. Growth</td>
</tr>
</tbody>
</table>

-6% - 24%

<table>
<thead>
<tr>
<th>Public CPG Retailer Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 1/3 HVC Share of Wallet</td>
</tr>
<tr>
<td>Middle 1/3 HVC Share of Wallet</td>
</tr>
<tr>
<td>Bottom 1/3 HVC Share of Wallet</td>
</tr>
</tbody>
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Source: IRI Consumer Network™; public company records from 12 public CPG retailers
Share of wallet predicts dollar market share 13 weeks in advance of actual results.

Illustrated in exhibit 4, Liquid Data enabled us to rapidly analyze four years of sales and shopper data, comparing historical time-lagged share of wallet data to current market share data. In this example, share of wallet 13 weeks ago almost entirely explains where market share is today (with 93 percent accuracy in this category).

EXHIBIT 4

Illustrative Example of Fast-Moving Frozen Category

Share of Wallet vs. Market Share

Market Share (Actual vs. Modeled)

Source: 13-week data, April 2014 - October 2017, IRI Customer Advantage™; fit based on stationary model.
By identifying and monitoring the most important share of wallet levers by category, marketers can make on-the-fly adjustments to strengthen current and future market performance.

Playing out the example from exhibit 4 into predicted periods, our statistical model used the underlying drivers of share of wallet to predict future market share with 91 percent accuracy. In fact, model predictability is high (i.e., $R^2$ greater than 50%) across more than two-thirds of the over 600 categories we tested. This holds true across categories in most departments (see exhibit 5).

The ability to predict future market performance based on shopper behavior today is critical because, on a daily basis, retailers face the daunting task of managing hundreds of categories, each of which has a unique story, challenge, and opportunity. Simultaneously, a retail banner serves an average of 10,000 to 30,000 shoppers (or even more) per week, depending on the size. Each of these shoppers has unique needs, motivations, and resources—every buy moment is different. Out of necessity, therefore, retailers often rely on “the way we’ve always done it” to move with speed and avoid unanticipated risk.

But, as Albert Einstein said, “In the middle of difficulty lies opportunity.”

With models that turn current behavior into bellwethers of future performance, retailers and their supplier partners can be equipped with the information they need to not only identify the opportunity, but also to make on-the-fly adjustments to their strategies and tactics to optimize store performance.

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“Out of clutter, find simplicity. From discord, find harmony. In the middle of difficulty lies opportunity.”

**ALBERT EINSTEIN**

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Source: 13-week data, April 2014 - October 2017, IRI Customer Advantage™; fit based on stationary model.
Product Strategy
To maximize share of wallet, our team has developed a simple, but powerful, framework (see exhibit 6). This framework gives retailers and suppliers the knowledge needed to focus their marketing time and money on just the levers that will have the greatest impact.

In categories that are experiencing declines, attaining growth is not likely. However, by embracing smart pricing strategies, retailers can win share of wallet (or units, or stomach, etc.), thereby driving market performance. In non-declining categories, the question is more about when to focus on increasing conversion (when shoppers are already in store) versus driving more product trips. If the category has low purchase frequency, strategies must keep the category top-of-mind for the shopper while she is in the store, so that the buy moment is not missed. After all, that moment will not arise again in the near future. For high purchase frequency categories, on the other hand, strategies should focus on driving trips (for categories where sales are flat) versus bigger baskets (in high-growth categories).

EXHIBIT 6
Share of Wallet Drivers

FOCUS ON SMART PRICING
- Pudding Cups (Snacks)
- Canned Fruit (Meal Components)
- Frozen Gluten Free (Frozen Foods)

FOCUS ON CONVERSION
- Baby Powder (Personal Care)
- Hair Accessories (Personal Care)
- Mops and Brooms (Household Cleaners)

FOCUS ON DRIVING TRIPS
- Rawhide (Pet Care)
- Produce—Banana (Fresh/Perishable)
- Bakery Muffins (Bakery—Fresh)

FOCUS ON DRIVING BIGGER BASKETS
- Deli-Prepared Salad (Deli)
- Premium Juice (Fresh/Perishable)
- Beer (Beer/Wine/Spirits)
Shopper Strategy
To further accelerate share of wallet gain, retailers must focus on winning the highest-value shoppers in the total market—that is, those who spend the most on each category. While it’s important to win with all shoppers, retailers and their supplier partners will not win without high-value shoppers—period.

IRI’s recent point-of-view paper, Delivering Growth Through High-Value Customers, illustrates that the top-spending households in any category spend nearly three times more than the average household. By targeting these top-spending households, retailers and CPG firms can capture greater share of wallet and win outsized sales growth across categories and stores. To identify high-value shoppers, retailers must invest to understand the total-market spend of each household in their trading areas. Further, by measuring shopper mix (how well retailers are getting highest-value households into the store) and wallet share index (how well the store is capturing that spend compared to other stores), the retailer can find new growth opportunities. To activate against these opportunities, retailers must then create a personalized activation strategy against highest-value shoppers.

Category Plus Shopper Equals Success
To put the pieces together, consider the hypothetical scenario of the “deli-prepared salad” category and a situation where the grocery retailer is losing sales and market share. By leveraging the framework above, the retailer is able to see that the category is growing and is purchased frequently, and that the most effective shopper lever would be driving a bigger shopping basket. With the understanding that the shopper is driven to purchase items with “healthier-for-you” attributes, the retailer is able to expand assortment and create point-of-sale displays to educate shoppers about the benefits of the product on the shelf to drive growth. The upside potential is significant: increasing just one growth lever by one percent can drive up to a one percent increase in future market share. In deli-prepared salad, this would translate to growth of more than $4 million.
Actions Speak Louder Than Words, but Words Foretell Actions

The adage is true: actions do speak louder than words. Still, with today’s access to big data and advanced analytic power, IRI has found a second key indicator: consumer sentiment—expressed through words via social media platforms—is itself a powerful precursor to future sales performance. This is great news for suppliers and retailers, because now these insights can be used to understand consumer mindset and to influence future buying behaviors.

In a fast-changing and technology-enabled marketplace, retailers have a very real need to understand consumer attitudes, perceptions, and sentiment across the marketplace. They need to be able to monitor trends and changes in consumer behavior to better understand future trends and position products to stay top-of-mind for key shoppers.

To tackle these critical needs, IRI has developed IRI Social Advantage™, a high-tech voice-of-the-consumer solution that integrates best-in-industry media data, including social messages, on one platform. Leveraging Liquid Data, retailers can quickly and easily identify impending changes in retail consumption based on social media activity.

Blog traffic leads e-commerce sales growth. For instance, 68 percent of e-commerce unit sales growth can be explained by growth in online consumer sentiment activity—particularly in blogs—one month in advance of those sales actually taking place (see exhibit 7). While positive sentiment is aligned slightly better with future activity, any kind of blog activity—whether positive, negative, or neutral—seems to lead e-commerce sales. Why? Because of the very nature of online shopping—from reading about a product on a blog site to then instantly clicking and purchasing at a retailer’s website.


*Represents most significant variable
Shoppers seem to be particularly interested in blogs, which are mostly consumed on laptop and desktop devices and include intricate details about other shoppers’ experiences. Was the interaction with the retailer/brand a positive experience? What did they like? Not like? Any recommendations for improving the experience? The possibilities are many and the information is invaluable.

**Micro-blogs can lead brick-and-mortar activity.**
In contrast, shopping in a brick-and-mortar store is a very tactile experience. Shoppers have the opportunity to hold a product, flip it around, and get a sense for texture/size/weight, etc. Online, that tactile experience is missing. And, because shoppers move fluidly between the online and offline retail realms, it is critical that retailers and CPGs have a keen understanding of the interplay between the two. To better understand what these influences look like, IRI studied a popular online communication tool: micro-blogs.

Micro-blogs (platforms such as Twitter, Facebook, and Pinterest), which are generally consumed on mobile devices and contain very short messages, have shown strong connections to brick-and-mortar sales. Positive sentiment appears to lead to leakage to the online outlet of the same retailer (consistent with above finding) whereas negative sentiment growth leads to leakage to other retail banners (see exhibit 8).

The leakage to the online outlet of the same banner may occur because, when a (likely regular) shopper is reading positive micro-blogs about the retailer, he/she is already online. Often there is a link to the retailer’s...
website, but even without that direct link, it is quicker and easier—more convenient—to simply make that purchase online. In doing so, the shopper eliminates the “hassle” of traveling to a store—gas expense, traffic delays, time investment, etc. The leak shifts from brick-and-mortar to the online outlet. This is the type of “good” leakage that is tied to positive micro-blog sentiments, since it reinforces the shopper’s confidence in buying online from the retailer.

On the other hand, if micro-blog sentiments regarding a specific retailer are negative, the shopper of the retailer tends to make the purchase at a competing retailer’s store. Again, the shopper is already online, likely on her mobile device, but she isn’t anticipating a good experience with the initial retailer she considered. She could already be in the brick-and-mortar or online store. Either way, when the micro-blog is negative about the retailer, she will be voting with her feet or her fingers and likely completing the purchase elsewhere.

Select the right tool for the job.
Retailers must develop shopper marketing strategies that lead the shopper down the desired path. Embracing blogs and micro-blogs is absolutely essential. Successful retailers will need to monitor the online activity for consumer sentiment change and engage shoppers in a productive dialogue, thereby increasing visibility and engagement, particularly during the holiday season and other high-opportunity periods.
Insights Into Action: Follow the Signs to Growth

Given the spate of information generated every day and swirling around big data, it’s reassuring to know that technology and analytics are up to the challenge of turning the data into insights and action, facilitating the democratization of the data across organizations. Armed with these insights, retailers and CPG firms must leap into action. In this fast and furious race for growth, quickly employing an effective strategy is critical. This three-step insights-based strategy will give retailers a sustainable competitive advantage and hasten the journey to growth.

• Understand which shopper behaviors are predictors of market performance.
  Shopper behavior matters. Retailers must invest to identify the behaviors and sentiments that activate their most important customers. These could be common behavioral measures, such as penetration and trips, or be unique attitudinal measures, like consumer sentiments that are shared via publicly available digital platforms.

• Monitor trends in shopper measures and associated shifts in retailer market performance.
  Invest in new technologies and platforms that enable rapid collection, cleaning, and synthesizing of the vast and disparate data that is readily available. Constantly measure and monitor trends to identify emerging opportunities and threats. Understand how your banner is performing and keep a close eye on competitor performance. Taking your eye off the ball for even a moment may mean losing a multimillion-dollar opportunity to drive sales. Monitor leakage across brick-and-mortar and online outlets.

• Activate against the most effective shopper measures to drive market performance.
  Fight to protect and grow share of mind and share of wallet, particularly in categories that drive traffic and/or categories and attributes that appeal to the market’s highest-value customers.

• Develop strategies to influence buy moments:
  • Promote blogs to increase total visibility and mentions, to help grow e-commerce sales.
  • Tap into micro-blogs to attract occasional shoppers (bottom 70 percent of customers) to grow brick-and-mortar sales.
  • Keep top loyal customers in the franchise. They might be migrating to online purchases, but you can still win the buy moment!
  • Personalize offers, particularly those targeting highest-value customers.
  • Move fast and first to get the edge and win the race.
About IRI
IRI is a leading provider of big data, predictive analytics and forward-looking insights that help CPG, OTC health care organizations, retailers and media companies to grow their businesses. With the largest repository of purchase, media, social, causal and loyalty data, all integrated on an on-demand cloud-based technology platform, IRI helps to guide its more than 5,000 clients around the world in their quests to remain relentlessly relevant, capture market share, connect with consumers and deliver market-leading growth. A confluence of major external events—a revolution in consumer buying, big data coming into its own, advanced analytics and automated consumer activation—is leading to a seismic shift in drivers of success in all industries. Ensure your business can leverage data at www.iriworldwide.com.

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