

White Paper



Using Advanced Category Analytics To Fuel
Consumer-Centric Merchandising

A CGT WHITE PAPER

The age-old questions “Who is buying what, when, where and why, and what will they want tomorrow?” will always exist in the retail-distributor-manufacturer chain. The challenge is to learn as much as possible, as quickly as possible, and as accurately as possible about consumers’ shopping habits, and to effect changes that will influence consumers to buy specific products within specific categories, shaping predictable demand patterns.

So many factors go into the mix, but it all comes down to being able to react to granular data gathered from sources as varied as: the store product mix itself; POS data; loyalty data; inventory movement data within the distribution structure; syndicated data from third-party researchers and aggregators; demographic and geographic data. They are all part of the equation and can be termed “structured data” or downstream data. But then there is the “unstructured” data, or raw information that can be derived from blogs, websites, complaint hot lines and other word-of-mouth communications. Both types of data will be part of the future of category management, in which advanced category analytics fuel consumer-centric merchandising.

But let’s go back for a moment. How do CPG companies and their retail partners define Consumer-Centric Merchandising (CCM) today? “It is the ability to understand what your opportunities are within a given category, understanding the three ‘P’s’ of product merchandising,” explains Dale Hagemeyer, research vice president, Gartner Industry Advisory Service for Manufacturing. “Product, placement and promotion are the keys. Understanding how your product fits in and how it can make more money for you. It is the ability to spot the opportunities and being able to build scenarios around what they mean.”

Kishor Gummaraju, head of CPG Solutions for Infosys, expands the definition. “Consumer-Centric Merchandising means communicating appropriately with the shopper— through the right merchandising mix—through the lifecycle of the shopping occasion and continuously improving the same.”

Zel Bianco, president and CEO of Interactive Edge, says “There’s really no such thing as a one-size-fitsall approach to CCM. The ability to flexibly respond to changing market conditions and consumer attitudes is key. Driving enterprise efficiencies in data management and presentation while empowering end users at the same time is a fine balance—almost an art.”

Simply put, CCM focuses on the consumer and the factors that affect his/her buying decisions. Then it is up to the partners in the DDSN (demand-driven supply network) to develop, plan and execute appropriate marketing, sales, promotional and supply chain plans in response.

However, “A Handbook for Consumer Product Companies Using Downstream Data,” from AMR Research, May 2006, shows that “while 70% of consumer goods companies collect downstream data, less than 3% can use it actively to sense and shape demand.” The report goes on to state, “56% of consumer goods companies take more than two weeks to sense



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demand.” This means that by shortening the time needed to develop data insight, the consumer’s demands and desires can be more proactively met, before they change yet again.

Further, according to the November 2006 Consumer Goods Technology survey on Consumer-Centric Merchandising, very few companies are linking data from various sources and modeling the same to handle promotions and pricing issues. Further, even fewer leverage “unstructured data” from multiple sources to help improve their execution. However, the few that have done so have gained significantly from it.

The environment is changing. The ultimate objective of a brand is to always strive for strengthening its loyalty and image, leading to market share gains. The use of category analytics toward achieving these objectives and being consumer-centric is not new. But today, the Internet, multiple mediums of entertainment, multiple channels for shopping, and fewer though more specifically defined shopping trips all make the environment very complex. For a brand to be consistent with its appeal and message and in synch with the consumer’s motivation and his/her need state to buy, advanced category analytics play a huge role. The experiences of several leading CPG companies provide strong evidence to support this.

Advanced category analytics involves companies taking action on the insights they develop leveraging data across multiple sources. The most important aspect, however, is developing insights that are actionable. There are new and advanced tools enabling clustering, assortment planning, space planning, demand and replenishment planning that help further analyze granular data to help improve CCM. Leveraging these insights to further improve new product launches and promotions; the merchandising mix and availability at a store; and product placement at retail will require integration with the underlying execution processes.

“Championing a Category Analytics movement within a company need not be a tall order. It’s not like overhauling a company’s processes or systems,” explains Gummaraju. “We have seen in some CPG companies that two simple steps show tremendous results. One is to identify a Category Analytics champion who understands the vision behind having a simple-to-use analytics framework. The other is to build a small set of easy-to-use applications over your existing data sources to start showing the value. If these two steps are successful, then the users will automatically demand and ensure sufficient momentum in this initiative and make it successful.” He adds, “Companies well down this path are building longterm analytics engines, which can be built or supported internally or externally, that will power their success in the future.”

Building Trust and Relationships

While it is imperative to share data in order to make Consumer-Centric Merchandising a reality, the challenges are daunting. The traditionally adversarial relationship between retailers and CPG companies has evolved in recent years into a more cooperative one, although issues of trust still exist. According to *Consumer Goods Technology’s* November 2006 Consumer-Centric Merchandising survey, collaborative business planning is the most important aspect that needs focus.

Gartner’s Hagemeyer feels that with the advent of Wal-Mart’s Retail Link, new levels of cooperation are coming to the forefront. The success of this particular project represents new possibilities that encourage new levels of trust in data flow. CPG companies and retailers alike need to continue to develop new ways of sharing data that benefit all parties in the supply chain, while best serving the consumer.

“We have been very fortunate in that we have built relationships with our retail customers over the years that have demonstrated our commitment to be a most-valued resource,” explains Ed Chrupcala, director of category development at US Smokeless Tobacco. “It takes time and you need to build slowly, one step at a time.” Being proactive as a partner has worked extremely well for the company. “We ask our customers what they need, develop, test, and incorporate feedback. It’s a discovery process that asks how we stack up and gives us the ability to learn what is going on in the category. You need to prove yourself,” he emphasizes.

Kurt Mueller, senior vice president, business planning and support with the Consumer Products division of Hormel Foods, concurs. “Our category analytic teams support our sales teams. They are the brains behind the sales pitch, supporting consumer- centricity within specific chains. Some also support geographic teams. The challenge is choosing the right (retail) partner. Some customers do not necessarily take your recommendations. But if you play the role you are supposed to be playing, you build credibility and become a trusted advisor.”

Working with Clean Data

Once consensus and trust have been established with the players, the gathering of data from disparate resources in multiple formats (some as primitive as Excel spreadsheets) can be achieved. However, getting it in a time frame that gives manufacturers a basis for responsiveness once the data has been crunched is another hurdle to overcome. With the advent of better cooperation from the retail level in obtaining close to “realtime” data, as with programs such as Wal-Mart’s Retail Link, the next step to solve is “cleanliness.” It does no good to share data that is not reliable.

As Hormel's Mueller states, "There is so much data being thrown at you...it is almost too much. The important thing is to stay focused on key initiatives and prioritize. Some retailers have 'bad' data. You need to have a real commitment from the top to pull in retailer's personnel from many areas such as IT and the front line. You need to train them, so they understand shrink, pull back, and the importance of correct PLUs. Some retailers are doing a great job and others just give you a blank stare."

Historical data, when available, is fraught with many inaccuracies and lacks depth of information compared to the hopefully more robust current information. Therefore, it becomes extremely tricky to glean actionable patterns and gain insights. As time goes on, and historical data is framed more completely, its use can and should increase in category analytic programs.

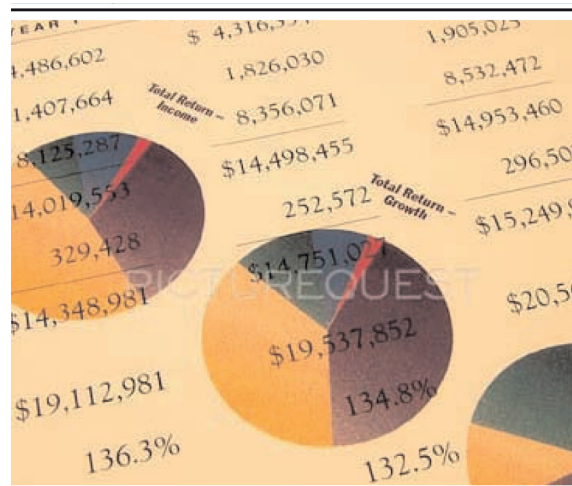
Rollout of analytical applications based on unclear data can lead to user abandonment. Enabling smooth transitions to such applications is of paramount importance. "We have seen that piloting applications over a small user base of categories, account representatives or territories in order to identify possible data issues, and resolving them prior to rollout, is always a good idea," says Infosys' Gummaraju.

Integration—Data and Underlying Systems

US Smokeless Tobacco's Chrupcala explains that there are even more challenges. "Building a data warehouse to consolidate all the disparate data and their sources is a significant challenge. Additionally, customer shifts are continuous. They (retailers) constantly close stores and buy other stores and chains." Clearly, continual industry consolidation, as well as the blurring of channels, represent problems to be overcome.

Rich sources of data like loyalty data help to define who the consumers are for particular products and what their shopping patterns tend to be. It can be a tremendous aid in understanding brand loyalties (or the lack thereof), what types of products would be profitable as affinity offerings, and more. Unfortunately, few retailers today share their loyalty data, and few have any intention of doing so. According to AMR Research, 62% of retailers do not and have no intention to share customer loyalty data. It is up to the CPG company to convince retailers of the importance of such data in the mix and of their ability to effectively integrate this data with other sources of information to glean insights.

And just as it looks as if we have reached the end of the line for category analytics data input, new sources of significant information, like blogs, websites, consumer complaint databases and toll-free info lines, can and should be part of the knowledge mix used to create insight. Gummaraju notes, "A number of CPG companies today have their ads available on websites like YouTube where viewers post their comments. These comments are significant lead indicators of how an ad is doing and what its impact on sales



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Change Management, Category Analytics and US Smokeless Tobacco

It becomes clear that in order for CPG companies and their retail customers to take serious competitive advantage of category analytics, there needs to be a change in how they view their corporate structures. “You need commitment. It’s a practice the entire organization must support, engage and participate in. It requires a strong commitment to (the retailer) customer from top management on down (through the entire company),” explains Ed Chrupcala, director of category development at US Smokeless Tobacco (USST).

“We have developed a highly collaborative relationship with IT,” he adds. “They come on calls to the retailers. It’s a team selling approach to category management. With full management support, that commitment then bubbles down through the whole organization. Before we did this, category management development was not as cohesive. It has made a big difference for us.” Responsibility filters all the way down to USST’s several hundred sales reps, who direct call on approximately 125,000 stores and collect in-store data.

“My department is charged with the task of elevating the category. Today smokeless is ranked fifth behind cigarettes, beverages and beer, and ahead of candy and salty snacks,” in the convenience channel, which represents the majority of the company’s retailers. “As we become more successful, it requires more focus. Our role is to provide retailers with the information they need to be more profitable and create more traffic,” Chrupcala continues.

“Our whole focus is the category management principle of ‘What is the retailer trying to accomplish?’” he asks. Chrupcala points out that detail and specifics of performance and dynamics are critical. Blending the retail point of view as to store dynamics with the information provided by USST’s category analytics helps them define what they can and should do in terms of treating the category. “The biggest thing is to have systems and tools that can provide the retailer with a host of metrics: gross margin, margin dollars, inventory turns, foot traffic, etc. We need to provide perspectives against all the measures retailers need,” says Chrupcala.

Chrupcala’s group takes the process to another level with consumer focus groups, to learn what their considerations are for switching brands. Additionally, they use census data, state of the industry research, wholesale to retail (reseller) data, geographic data, demographic data, channel level data and syndicated data. It all adds up to massive amounts of ‘stuff.’

“How do we combine it all to create modeling?” asks Chrupcala. “We developed an internal proprietary database that brings together the disparate data sources. We built a (data) warehouse and the tools needed to extract information. When we don’t have the expertise (or bandwidth), we work with outside resources like Infosys, whose experience with analytics is more complex. They do the heavy data crunching to help us understand what is needed for our customers.” USST has developed price modeling, promotional effectiveness and promotional lift analytics, programs that the trade has been requesting for a number of years.

“We are very fortunate in that we are becoming recognized as a valued resource for our retailers,” says Chrupcala. “It takes time. You need to slow build, one step at a time. We developed new programs for years to continually look for new ideas: products, promotions, category management. We pilot test, listen, and incorporate feedback continuously.

“Information is the new commodity everyone wants. Retailers are becoming more demanding. It’s the result of having more and wanting more. I can only imagine what we will be doing in 10 years,” Chrupcala concludes.

will be. Take for example the latest Super Bowl ad from General Motors, which is attracting a lot of criticism and opinions. New technologies in natural language processing can help monitor the kind of ‘buzz’ such ads create. Likewise comments about products on websites like Amazon can also be monitored to understand your own brand as well as competitors’ brands.”

Organizational issues, such as performance measures that promote isolated, event-based knowledge rather than an ERP system-based common information approach, are yet another hurdle to jump. Gartner’s Hagemeyer is clear on the subject. “Let’s say I want to know all the stores that sell wild rice well. I need their demographics, locations, etc. I may find those stores selling lots of wild rice have a high-income Hispanic population. Once we understand that, then we can execute upon that insight, but a big impediment to (getting to that point) is that people are tied to manual processes.”

In summary, states Gummaraju, “It all boils down to one simple fact— How can I act on the insights gained through multiple data sources?” He adds, “Of what use is it to know that stores in a certain neighborhood prefer larger pack sizes of a new product if a company cannot change the distribution plan in time? Of what use is it to know that a display has not been put up on the retail floor if one cannot affect its movement to the floor? The ability to execute through well-defined business processes and integrated systems is key.”

'Modeling' for Actionable Insights

Once the challenges of trust and data cleanliness are addressed, the question of how to model the data comes into play. Sophisticated category analytics means using advanced statistical modeling. "Profit modeling from the retail point of view, opportunity gap analysis and promotional modeling provide our retail customers with better information. This helps them to understand how effective our trade programs are in line with other categories," states Chrupcala. He further explains that in the convenience channel, which represents 70% of US Smokeless Tobacco's business, these are the three most important types of modeling performed by the company.

Syndicated data, such as the information available from sources like Nielsen and IRI, gives the category captain valuable data on product movement throughout a particular geographical region and within specific channels. Adding this to the mix makes the "data dump" even more voluminous, but presents opportunities that may otherwise be missed in the competitive landscape.

Sinan Gurman, CPG Solutions Manager for Category Analytics at Infosys, further elaborates on the challenges and solutions to address them. "Category analytics is a process where all the factors that impact consumer buying decisions are *well thought-out, evaluated and measured*, and the learning is leveraged for better sales, marketing and operational planning decisions. Although reporting inefficiencies in raw data still exist at aggregated levels, syndicated data accuracy at the UPC level has increased significantly over the years. This provides intelligent insight on true incrementality of sales activities and consumer behavior across regions and key accounts. Realistically, this is the actionable level that most CPG companies manage their promotions and pricing strategies today.

"However, there are other factors that are not captured in syndicated resources but need to be quantified and added in the overall equation," Gurman adds. "CPG companies should consider the additional impact of BOGOs, seasonality, special calendar dates and nationwide theme events that create above-the-norm spikes in consumer demand compared to similar everyday promotions. Moreover, the true impact of special packs such as bundled product offerings, free offerings and Instant Redeemable Coupons (IRCs), as well as other activities undertaken by their own and competitors' products, should also be a part of the overall modeling equation—not only for ad-hoc analysis but also for forecasting, planning and execution."

As Wal-Mart accounts for up to 40% of revenues for some CPG companies, utilizing Retail Link data for actionable pricing and promotion decisions for Wal-Mart business is a challenge for multiple reasons. Most importantly, raw Retail Link data lack the execution levels of critical promotional activities such as features and displays. In addition, there are restrictions put in place by Wal-Mart about how companies can present Retail Link data and to whom. However, there are reasonable options for internal use and collaboration.

"How valuable would it be for a CPG manufacturer to show Wal-Mart its bottom line losses due to lack of its participation in a nationwide promotion?" asks Gurman. "How about the ability to simulate



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Shopping Carts Finally Getting Smart!

Just imagine walking down the aisle of the grocery store with a cart that tells you where to find what you need, the most logical way to proceed through the maze and scans on the spot. Recipes, ingredient lists, specials and promotions pop up as you cruise. These are all things that have been talked about for years, but are now coming into reality.

Jon Kramer, chief marketing officer, and Steve Carpenter, CEO, MediaCart Holdings, are pilot testing in several markets across the country and expect to launch in the fourth quarter of 2007.

So what does that have to do with category analytics? “By learning how shoppers shop the store, how they traverse the aisles, where they linger, we can see new patterns in shopper dynamics,” says the team. “It is qualitative information we have not had before.”

MediaCart will supply the data analytics, crunched by Infosys. They will be supplied in template format that can be customized as needed. “How do you optimally communicate to the shopper to drive sales?” they ask. Analytics will help understand if there should be secondary displays of items in other than the traditional aisles or locations. “People tend to avoid the cookie aisle. So how do you get them to go there? How about an ad that says something like ‘Milk’s favorite cookie’ playing on the cart when the consumer is in the dairy aisle?”

Hundreds of millions of dollars are being spent on freestanding inserts (FSIs) today, with a 1% redemption rate. “FSIs can be replaced right on the cart screen, providing information to the shopper only when needed, creating great cost savings, while bringing an ROI metric as to what is going on in-store. We will know what works and what doesn’t,” says Kramer.

“The industry spends about 70% of its promotional dollars not knowing what is really happening,” he adds. Analytics, derived directly from the consumer via the cart, will bring deeper insights for the category management team. Now that’s consumer-centric merchandising!

different promotional scenarios in Wal-Mart, including cannibalization effects and predicted ROIs that account for cannibalization and channel shifting for both retailer and manufacturer partners? Analytic approaches need to be adjusted for each retailer as their go-to-market strategies vary. Most key retailers such as Kroger, CVS, Target and Wal-Mart offer consumer promotions through unique implementation cycles. Significant improvements in cheaper and faster computing power, configurable and automated robust analytical models combined with collaborative process-based efforts with CPG clients ensures a win-win-win situation for the retailer, including Wal-Mart, the manufacturer, and most importantly the consumer.”

“The role of the category management team is to define as unbiased a look at specific categories as possible,” explains Mueller. “We use syndicated data, along with secondary consumer information gathered through research. The analytics teams use these resources to help make recommendations in the categories themselves and adjacent categories. It really helps in understanding customer needs.”

Reaping the Rewards

Those CPG companies that use category analytics in a focused and disciplined manner, providing retailer partners with truly unbiased information, are reaping great rewards. Hormel has been able to achieve significant growth, for example, in the perishables area. “We went through a reorganization three years ago. We put together a formalized analytics team for the perishable end of the business,” says Mueller. “With that engine, we can now fine-tune to help the retailer in the deli and fresh meats areas, as well as produce.” Results? Hormel has surpassed their sales targets nicely and has recently launched several new brands quite successfully.

Investing in easy-to-maintain, user-friendly, fast applications and formalized training offers both the retailer customer and the CPG company an analytical framework that will pave the way for a new level of partnership, geared to giving the consumer just what she wants, when she wants it, where she wants it and at a price that is profitable to everyone.

About Infosys

Infosys Limited is a global IT services firm that provides business and IT consulting to Fortune 1000 organizations. With over 69,000 employees in 18 countries, we deliver **IT-enabled business solutions that provide strategic differentiation and operational superiority, enhancing our clients' competitiveness**. Top-tier CPG companies and retailers across North America, Europe and Asia leverage Infosys' services to help improve their productivity, efficiency and effectiveness. Infosys' 3,000-plus strong CPG and Retail practice offers end-to-end services that include business process conceptualization, process engineering, package selection, program and change management and implementation.

With Infosys, you are assured of a transparent, collaborative business partner with industry expertise to ensure business-IT alignment and flexibility, world-class processes, speed of execution and the power to stretch your IT budget by leveraging the Global Delivery Model that we pioneered.

For more information on Infosys solutions and services, please [visit www.infosys.com](http://www.infosys.com). Contact an Infosys Retail & CPG expert: retail&cpg@infosys.com.



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