

European Consumer Practice

Consumer Marketing Analytics Center

Creating competitive advantage from big data in retail



The opportunity at a glance

Today's shoppers are walking, talking, blogging data dispensers. Wherever they go and whatever they buy, they leave a trace of preferences, purchases, and peer reviews. While the pool of data was previously limited to information harvested during actual transactions, there are now countless sources, ranging from prepurchase mobile research to product reviews posted on social platforms. Retailers should move quickly, turn their attention to this wealth of data, and make it a part of the way they do business: because it's big, because it makes a difference, and because it's a battlefield.

It's big!

- Mobile and social are just the most recent additions to a deep and growing pool of diverse data sources.
- Real-time updates generate terabytes of data, calling for real-time actions.
- Global data generation is projected to grow at a rate of 40 percent annually.

It makes a difference!

- Big data has the potential to increase net retailer margins by 60 percent, according to the McKinsey Global Institute.
- Big data is expected to drive up to 1 percent of annual productivity growth in US retail alone.
- 50 percent of social media users say shopping-related information is especially important to them.

It's a battlefield!

- Amazon competes on analytics and invests 6 percent of sales in technology, outpacing traditional retailers by a factor of 5 to 10.
- There are an estimated 200,000 vacancies for big data analysts and more than a million data-savvy executives in the US alone.
- IT industry giants have spent USD 15 billion to acquire firms specializing in big data, according to the Economist.

Our value proposition

Welcome to CMAC, McKinsey's Consumer Marketing Analytics Center. At CMAC, we help clients integrate large data sets harvested at multiple touch points, from checkouts to loyalty programs and social networks. We develop tools to generate actionable insights, and we work with retailers to embed these insights in their decision making in areas such as ranging, pricing, and promotions management. We are in a unique position to help retailers create value from big data – because of our expertise, our reach, and our impact focus.

Dedicated big data expertise

- CMAC comprises some **100** professionals, many of them with more than a **decade** of experience in insights-driven retail.
- We have hired big data specialists from the industry's most **distinguished players**, including Amazon, Lattice Engines, and dunnhumby.
- We have acquired **Henry Rak (HRCP)**, a pioneer in data-driven growth, and established **NM Incite**, specializing in social media analytics.

Global reach across industries

- McKinsey has more than **90** offices in over **50** countries, employing nearly **10,000** consultants, more than **2,000** of whom hold PhDs.
- Thanks to our **two dozen** industry practices, our teams draw on the latest in big data leverage from a wide range of industries.
- Our **McKinsey Global Institute** and our **Business Technology Office** are at the forefront of big data research, from impact assessment to implementation.

Focus on sustainable client impact

- We put **client impact first** and aspire to create sustainable value.
- We engage in extensive client **capability building** and insights-driven transformation to ensure our solutions stand the test of time.
- We offer light-touch analytical support over **extended periods of time**, aided by our offshore CMAC analytics team.

The complexity challenge

Big data holds the promise of big benefits for retailers, but it also brings growing time pressure and complexity. Take the example of pricing. Until quite recently, even a major retailer might have made just a few hundred pricing decisions every year, typically by way of monthly category-level reviews. These days, leading players engage in multivariate SKU-level pricing on at least a weekly basis, recognizing numerous factors from competitive behavior to local price sensitivity. And online pricing happens in real time anyway, often with multiple, if minuscule changes over the course of a single day. In effect, multichannel retailers find themselves handling as many as 100,000 pricing decisions every week.

While data-driven retailing was long a matter of reaching as many shoppers as possible, today's richer insights allow for activities that are reliably relevant to the target group and trigger quantifiable responses. Retailers can now use new touch points to start building their reputation long before a shopper's first purchase, and they can manage the relationship even in between shopping trips. It takes three things to get it right:

- Generate and integrate big data across touch points
- Derive and synthesize commercially relevant insights
- Empower executives to use insights for more informed daily decisions.

CMAC translates these success factors into an integrated approach to sustainable data-driven value creation in retail; it comprises diagnosis, optimization, and transformation.

CMAC – the missing link



¹ CRM = customer relationship management, CLM = customer lifecycle management

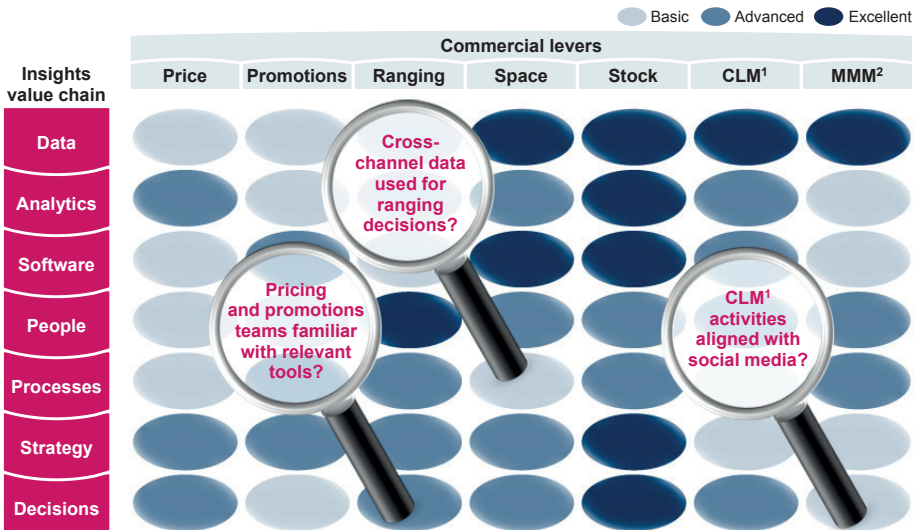
The CMAC approach

Diagnosis

To help retailers gauge their level of accomplishment in the areas of data generation and insights leverage, we have developed the CMAC heat map. It visualizes the assessment of a retailer's performance relative to its peer group, combining two dimensions: the insights value chain on the one hand and commercial levers, such as ranging and pricing, on the other. While pure online players may follow best practices to leverage sophisticated software for targeted marketing, a given traditional retailer may only achieve average scores in this area. Pure players, in turn, may be great at generating data, e.g., on seasonal search activity and shopping behavior, but seasoned bricks-and-mortar supply chain champions may have found more effective ways of leveraging this type of data to optimize inventory management and in-store availability, e.g., by integrating checkout data with order management.

But the heat map does more than provide a sober sense of the status quo. It also helps retailers advance their capabilities one step at a time. Reaching best-in-class performance levels may take a little longer this way, but our clients find that this makes it easier for their teams to keep up with the change, build the required capabilities, and make the impact stick.

The heat map



¹ CLM = customer lifecycle management

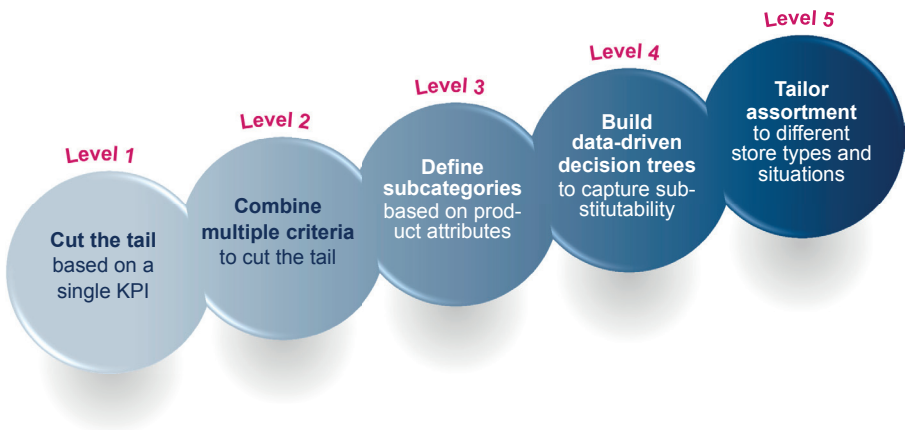
² MMM = marketing mix modeling

Optimization

The heat map helps retailers identify potential quick wins and define a path to full insights leverage. Step by step, it will take them from silos (“in-store pricing”) to integrated solutions (“cross-channel commercial offer”). To relieve retail clients of laborious one-off efforts and free up capacity for them to focus on continuous customer value creation, CMAC employs the latest data management solutions, advanced insights generation algorithms, and refined decision support tools. Key applications we have developed to leverage big data along the retail value chain include:

- Basket analysis to redefine known value items in order to shape consumer price perception and boost profitability
- Data-driven decision tree analysis to optimize ranging with the help of demand simulation, based on basket and/or loyalty card data
- Retail promotions tool to analyze past performance and optimize the frequency and types of promotions for maximum incremental profit
- Media mix modeling to optimize overall budget level as well as the selection of instruments, e.g., to balance leaflets with classical advertising and social media
- Customer lifecycle modeling, including proprietary predictive and self-learning customer behavior models.

Assortment optimization example



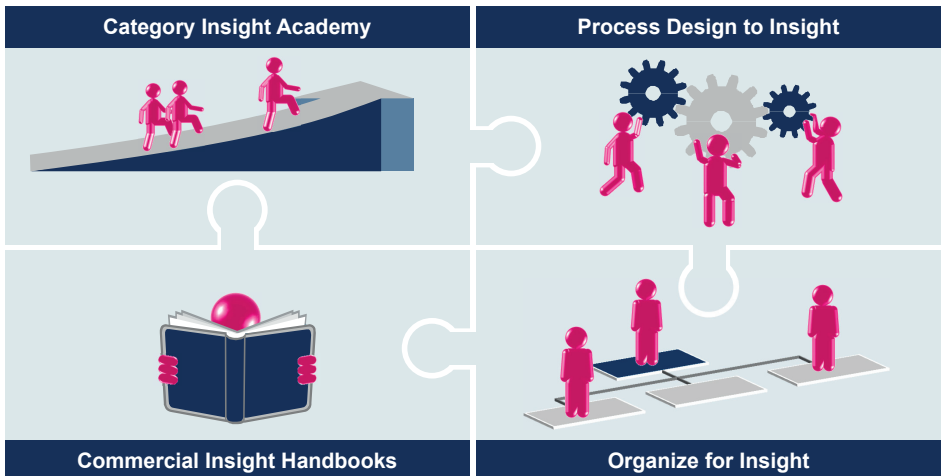
Transformation

Logic, as Mr. Spock himself famously puts it in “The undiscovered country,” is only the beginning of wisdom, not the end. Similarly, tools and techniques are necessary rather than sufficient conditions of world-class insights leverage. Even leading retailers still struggle with big data – not because of a lack of analytics, but because there is a gap between advanced analysis and daily business. Even if a great tool is in place, commercial managers often lack the time or the skills to use it. Sometimes, they are simply overwhelmed and effectively paralyzed by the output and revert to rules of thumb instead, letting great data go to waste. To empower executives to take advantage of the data they own, we have developed four key modules:

- Category Insight Academy: step-by-step tailored training and capability building
- Process Design to Insight: redesigned processes to recognize relevant data
- Commercial Insight Handbooks: hands-on information for frontline managers
- Organize for Insight: adaptation of roles, career paths, and reporting lines.

Commenting on our capability building program, one client's director of pricing said: “With so much organizational change, our analysts desperately needed support to execute our new pricing strategy. This approach allowed them to practice real-life activities in a simulated environment and gave us confidence that they could execute their jobs.”

Insights transformation



For further information, please contact:
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