

Marketing & Sales

# How analytics can drive growth in consumer-packaged-goods trade promotions

Consumer-packaged-goods companies seeking better results from trade promotions need a five-step strategy to upgrade their analytics.

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**Consumer-packaged-goods (CPG)** companies worldwide invest about 20 percent of their revenue annually in trade promotions. Stunningly, 59 percent lost money (in the United States, it's 72 percent).<sup>1</sup> Conversely, best-in-class CPG promotions returned five times more than the least efficient. Clearly, there is a huge opportunity for both CPG manufacturers and retailers to improve return on investment (ROI) on their trade-promotion investments.

Many CPG manufacturers, however, have opted for a more conservative route, targeting customers they already have through promotions and loyalty programs that are often ineffective. In fact, recent McKinsey research shows that, in most categories, consumers have wavering loyalty and prefer to shop around.<sup>2</sup> While promotions provide a short-term sales boost, they cannot generate long-term growth because they fail to address new customers, new shopping habits and preferences, or a retail environment undergoing a profound transformation.

The pressure continues to mount. The demand for CPG products and brands in traditional channels (for instance, grocery stores) has slowed in recent years, especially in canned goods, carbonated beverages, and laundry products. This slowdown has been driven in part by increased consumer interest (especially in the younger demographic) in healthier products, shifts to shopping in nontraditional channels such as e-commerce, and the growth of discount and club operations.

Fortunately for manufacturers, there is a profitable way to address these issues. Advanced analytics has progressed to the point that it can help CPG leaders get much more granular in developing insight into consumer behaviors and in segmenting shoppers. As a result, companies can not only drive better returns on promotional investment but also better tailor that investment to align with overarching strategic goals. As of 2017, 30 percent of CPG leaders already considered trade-promotion optimization through big data and advanced analytics their number-one priority.<sup>3</sup> The primary question for CPG companies is how to make it happen.

## How a North American CPG company used analytics to optimize the value of trade promotions

The most effective approach to leveraging analytics to drive better impact on promotional investment is to follow five important steps. While they may seem to be common sense, we find that companies often hire talent or start building out their infrastructure without first determining where the value really lies.

The following highlights how one CPG used this approach to achieve an incremental improvement of roughly 2 percent in sales and roughly 3 percent in household penetration.

### Step 1: Determine the source of value

Often, companies measure the success and impact of promotions at the level of a single product, a group of stores, or even a large population. These measurements typically rely on basic lift and ROI assessments, which are often calculated without considering the effect of things such as sales cannibalization and pantry loading (consumer stockpiling of a product), which can destroy value. Even more advanced measurements that take such factors into consideration inevitably fail to understand their impact on specific groups of consumers or shoppers.

Leaders at one North American CPG decided that they needed to move beyond the basic measures of lift and ROI. The company had determined it needed to increase household penetration, but that strategic focus wasn't apparent in the way it was designing, running, or evaluating its large promotional investment. The team established a goal of leveraging its promotional investment to increase household penetration by 2 to 5 percent. Importantly, they balanced the household-penetration target with the additional target of simultaneously driving sales growth of 1 to 2 percent.

### Step 2: Build an ecosystem of supporting data

To build the data set needed to deliver on household penetration and sales goals, the company looked to add new data sources, such as syndicated

<sup>1</sup> "Trade promotion doesn't have to be a guessing game," Nielsen, 2016.

<sup>2</sup> David Court, Dave Elzinga, Bo Finneman, and Jesko Perrey, "The new battleground for marketing-led growth," *McKinsey Quarterly*, February 2017, McKinsey.com.

<sup>3</sup> McKinsey and Nielsen, 2016 European Customer and Channel Management Survey.

data from third parties like Nielsen or IRI; internal sell-in pricing data; internal financials; and so on. Specifically, it sought out retailer-owned shopper data (household-level loyalty-card data) from multiple retailers as well as other third-party-owned data that could provide a more granular view of shopping habits—catchment-area demographic data aligned to specific stores and localized weather data, for example. Retailers, in fact, are increasingly aware that they can increase operating margins by 60 percent through efficient promotions and other data- and analytics-related levers, according to research by MGI and McKinsey, and are therefore increasingly willing to share their own proprietary data sources.

Armed with these multiple data sources, the CPG company then used an extract-transfer-load (ETL) system to migrate all the data to a single data lake—a repository that can hold large volumes of data in their native formats—with a corresponding analytics platform that could derive useful insights from them.

While a data lake is not necessary for all individual use cases or applications, we have found that promotions use cases, with their need for multiple internal and external data sets, are ideal candidates. On average, promotions use cases alone help support 50 to 60 percent of the data assets needed for subsequent commercial and operational use cases. Operationalizing a capability to target promotions to specific shopper segments and drive impact on metrics such as household penetration requires an ETL protocol (to receive data from outside sources), a cloud-based data lake (to hold and link different data sources), and application programming interfaces (APIs) (to retrieve structured and unstructured data for insight generation).

### **Step 3: Use fit-for-purpose analytics techniques to generate insights**

Armed with all the relevant data and a corresponding analytics platform to generate insights, the CPG manufacturer had data scientists run a tailored set of advanced analytics (in this

case, a series of clustering analytics techniques) to segment shoppers with similar behaviors and preferences—for example, those who were regular shoppers in their categories versus those who weren't. This enabled the company to understand the impact of different trade promotions on each shopper segment and to determine actions that could have an impact on each. Then, the company ran simulations to estimate the impact of different trade-promotion tactics on household penetration, sales, and other relevant metrics, such as volume and profit.

The results of the simulations challenged generally held beliefs about how to most effectively promote the company's categories. For example, promotions that made greater-volume purchases more attractive, such as buy one, get one free, did not entice enough infrequent shoppers in a category to participate more often; they tended to subsidize shoppers who were already loyal to the company's brands. The simulations did indicate that promotions focused on smaller package sizes in regions where its brand was not the share leader attracted shoppers who were not loyal to any manufacturer and did a better job enticing infrequent shoppers to enter the category. Importantly, the increase in household penetration among infrequent shoppers generated enough revenue to pay for the cost of the promotion targeted to shoppers not loyal to any manufacturer.

### **Step 4: Translate insights into actions**

Armed with these insights, the company was able to create a set of guiding principles for the design of retailer-specific promotions that would enable it to both track the impact of promotions on household penetration and design promotions that had proven impact for growing household penetration. Additionally, it was also able to balance household penetration with other important goals, such as driving sales growth and maintaining profitability levels. These guiding principles were initially used to test and validate the insights in a series of pilots with select retailers. Once impact was validated in the pilots, the guiding principles were then rolled out at scale

across a broad base of retail customers for the next promotion-calendar planning cycle.

**Step 5: Drive execution and performance management**

Often, driving execution at scale is the most difficult part of capturing the full value potential of analytics. To address this issue, the company developed a set of processes and tools to minimize complexity and workflow changes—among them, guidelines for promotion calendars, a program to actively manage metrics around compliance and effectiveness, and a process that involved relevant functions (sales, for example) in insight generation and the development of promotion guidelines. The promotions team also worked with a revenue-growth-management center of excellence to develop and roll out a promotions playbook to select key-account teams, updated incentives for teams to use analytics

to develop promotions, and communicated early success stories.

**A call for talent**

Building up and effectively using data infrastructure to optimize promotions requires CPGs to develop a unique set of new skills and capabilities. The most important are in three areas: business analytics, advanced analytics, and technical infrastructure (exhibit).

Since many of the best candidates are in industries other than CPG—engineering, for example—HR teams will need to find talent in different but related fields and, potentially, invest more to land initial hires. Creative partnerships or alliances with other organizations can also help fill the capability gap, though CPGs will need to not only protect their competitive advantage—proprietary

Exhibit

**Next-generation promotions call for new capabilities.**

	<b>Roles</b>	<b>Key responsibilities</b>	<b>Profile of the role</b>	<b>Requirements</b>
<b>Business analytics</b>	Translators	Turn output from models into business actions	Strong analytical skills; well versed in products/functions	2 full-time equivalents
	User-adoption managers	Train users and provide rollout support	Project-management experience in launching pilots/programs, etc	Existing team
<b>Advanced analytics</b>	Data scientists	Experts (PhDs) who provide modeling support/advice for sophisticated models	Advanced degree in statistics; lead-modeler experience	3 full-time equivalents
	Data analysts	Identify data needs and gaps	Technical education, SQL	2 full-time equivalents
<b>Technical infrastructure</b>	Developers	Develop software applications and tools to build and deploy models	Technical skills typically provided by IT	Existing IT resources
	Data architects	Establish data strategy, data governance, and data masking/modeling		
	System administrators	Maintain and configure big data environment		

data, for example—but also manage privacy and security issues. And no matter how successful their recruiting, they will also need to train their own people to source, manage, and use data.



Promotions have historically been a source of significant top- and bottom-line growth for CPG companies. However, in a world where most CPG

companies do not currently have differentiated promotions capabilities relative to their peers, this is increasingly challenging. CPG companies need to acquire more data and establish an infrastructure to manage them that includes analytics capabilities to derive insights, a process to translate the insights into actions, and performance management to drive continuous improvement and sustained impact.

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