Stocking the infinite shelf – How top consumer goods companies gear up for the omnichannel world

By Marcus Herzog, Augusto Moreno, Tatiana Sivaeva, and Kelly Ungerman

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Why it matters

Ten years ago today, Frank Ahrens of the Washington Post predicted that e-commerce would soon be a must-have channel for consumer goods companies.[i] The prophecy came true. Today, the Washington Post is owned by Jeff Bezos, and e-commerce is the fastest-growing channel by far. Even traditional brick-and-mortar retailers are already generating three to six percent of their revenues online. Sales within physical stores are at a standstill, while those of online retailers zoom along in double digits. In the past decade, e-commerce sales have grown ten times faster than in-store retail. Today, two thirds of all shopping trips begin online, regardless of the channel in which the purchase takes place.[ii] In 2020, e-commerce will account for 20 percent of all retail sales.[iii] The future of commerce is not just stores and not just online, but a combination of the two.[iv]

In the old days, consumer goods manufacturers used to wage price wars with one another, arm-wrestle with retailers over shelf space, and shake media agencies down for volume discounts on print advertising. It wasn't always pretty, but the roles of the players and the rules of the game were reasonably well established. What do you do when stores become virtual, shelf space is infinite, advertising turns into a string of automated auctions of micro-messages triggered by Google search terms,[v] and smart refrigerators place their own grocery orders online?[vi] As a consumer goods company, how do you adapt your business model to this new reality? In what follows, we look at successful applications of eCategory management solutions to different stages of the value chain, from strategy to pricing, and in a wide range of categories, including food, furniture, and apparel.

What it means

E-commerce is everywhere, and experts agree it will keep growing at the expense of established channels.[vii] Consumer goods companies have heard the call, but many of them don't know what to do. According to our research, almost two thirds of consumer goods executives – such as general managers, sales and marketing executives, and directors of analytics – consider "building e-commerce capabilities" a top priority. The expected benefits they name are manifold: keep up with evolving consumer needs, build a direct channel for interaction with consumers, strengthen their brands online.[viii] At the same time, only a meagre 13 percent say that eCategory management is fully implemented at their companies. Two thirds say that it isn't yet implemented, or only in a few pilot categories. Only a handful of the respondents say they have capabilities for deep insight generation.

eCategory management

Generally speaking, the term eCategory management is used to describe all efforts of consumer goods companies to manage the online channel, from strategy setting and assortment management to pricing and digital marketing. In this paper, we will focus on the technological aspects the participants of our recent eCategory management survey are most concerned about, from online competitive intelligence to assortment optimization. Specifically, we will look at examples of the solutions and approaches leading companies use to generate insights and create value online.

Sitting and waiting is not an option. The number one reason to take action is Amazon. In the US, the company commands almost half the market for online shopping.[ix] Half of all US households have access to express delivery through Amazon Prime, and Amazon Fresh is already available in some 20 metropolitan areas globally.[x] The takeover of Whole Foods shows that Amazon is serious about food.[xi] Experts believe that Amazon will eventually make many products currently sold at Whole Foods available through Amazon Fresh, and that Amazon will use Whole Foods stores as delivery hubs for food.[xii] The recent launch of Amazon Instant Pickup self-service lockers is pointing in the same direction: “The company is working overtime to merge the convenience of online shopping with the benefits of offline shopping (such as touch and feel and immediate availability), especially as it looks to expand into the grocery segment.”[xiii]

What does this mean for consumer goods companies? Take the example of a major manufacturer of processed food. The company was already selling their products through a major online player, as well as through multiple offline retail partners. Come Memorial Day, the e-tailer was offering the company’s flagship product at a price 20 percent below the sell-in price, using it as a loss leader to generate traffic. The company’s relations with their other retail partners suffered. The lesson learned? If you want to stay on top of your business, you need to step up your omnichannel game. To engage with online players at eye level, the least you need to do is track what is happening with your products online, and you need to do it in real time.

What to do

If you want to reap the benefits of e-commerce and stay in control of your brands, your products, and your bottom line across all channels, you have to take action now. The question is not whether the tipping point will come, but when it will hit your industry (see Exhibit 1). As science fiction writer William Gibson says: “The future is already here – it’s just not evenly distributed.”[xiv]

Every industry will reach a tipping point after which digital capabilities become a matter of survival

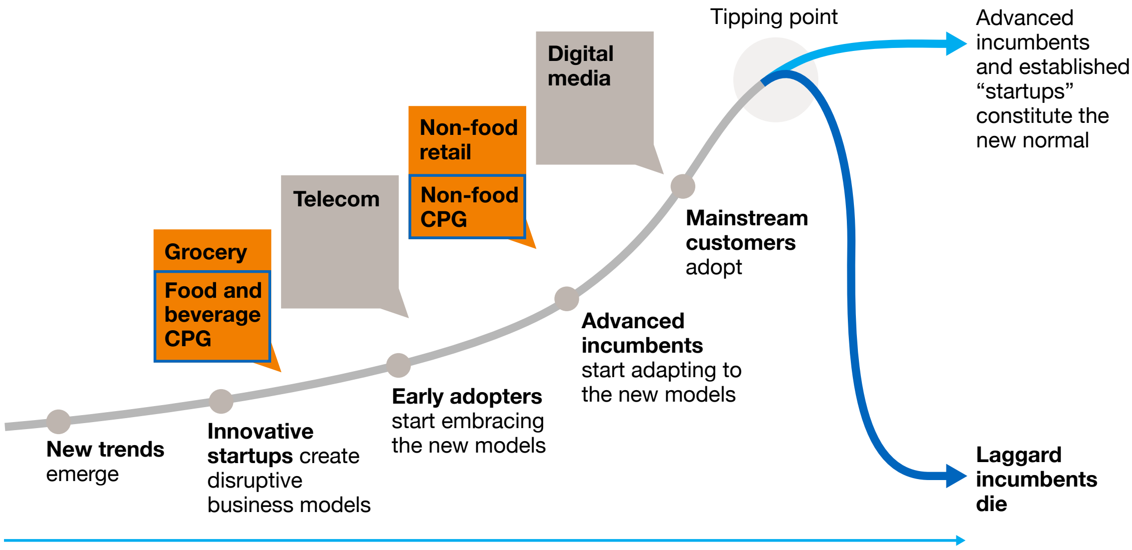


EXHIBIT 1

As you build your eCategory capabilities, you need to answer two questions:

- Where to start?
- How to win?

To answer the first question, i.e., to choose your battlegrounds, you need a fact-based understanding of online market dynamics by countries, categories, and retailers. This understanding will serve as the basis to define your aspirations and set your strategy. To win on your chosen e-commerce battlegrounds, you need to build capabilities. Examples include assortment management, pricing and promotion management, merchandising, and digital marketing. Which products should you be offering online? What are the white spaces in your assortment? What is the right price for a given product to stay competitive in each channel without leaving money on the table? To answer such questions, you need the right data and the right solutions. While pure e-commerce players are often very sophisticated when it comes to data-driven processes, many consumer goods companies are still working with spreadsheets that they update manually. In other words, there is a huge technological gap that consumers goods companies need to close swiftly and decisively to stay relevant.

Where to start?

One of the biggest questions consumer goods companies face when it comes to e-commerce is where they should play, or at least which categories they should start with. While data about online market dynamics is scarce and often inconsistent across categories, countries, and platforms, there are various proven methods to make the best of the data that is available.
In our work with some of the world’s leading multichannel players, we observe that the most

successful players combine data-driven solutions with expert judgment to pick their online battlegrounds. Let's look at a few examples of how top consumer goods companies are taking the guesswork out of eCategory management.

For example, a global food manufacturer set out to define investment priorities for their online business. The company used a data-driven approach to conduct an "online readiness" and growth strategy review of their entire portfolio. Although online sales accounted for only three percent of total revenue at the time, the company was intent on participating in the rapid growth of e-tail. Experts sat down with the company's top team to determine the best approach. Given the diversity of the company's portfolio, they opted for a multi-lens review that combines different types of segmentation – of people (demographic), their choices (behavioral), and their underlying needs – to detect new sources of volume-driven growth. It turned out that most of the company's products fell into one of three clusters:

- Part of the portfolio was projected to grow primarily through sales on online-only platforms, such as Amazon (cluster A)
- Another part of the portfolio, especially items that need refrigeration, was forecast to grow through local grocery delivery managed by brick-and-mortar supermarkets (cluster B)
- A third part of the portfolio, such as highly perishable or very bulky items, would see little to no online sales in the mid-term future (cluster C).

In a second step, the company relied on a combination of existing online data and feedback from an online shopper panel to pinpoint the most promising products in cluster A. The panel was crucial to remedy the fact that the available data was patchy. Based on the consolidated data sources, a team of eCategory management experts helped the company set up a simple scoring model that included the following criteria:

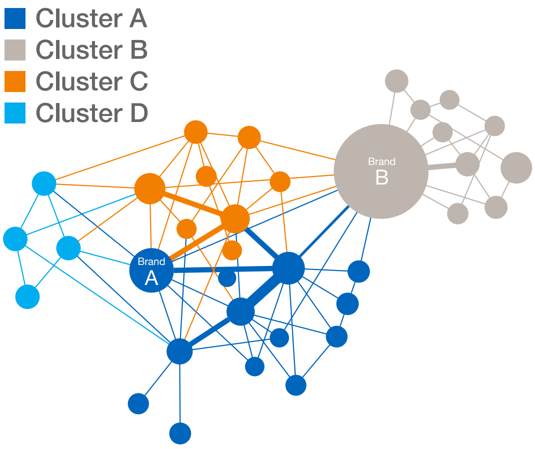
- Can this type of product be shipped without refrigeration?
- Are consumers willing to buy this type of product online?
- Is the typical SKU in this category relatively pricey in relation to its weight and volume (to offset the cost of shipping)?
- Is this type of product repurchased on a regular basis (to offset the cost of customer acquisition and loyalty creation)?

The products that achieved the highest scores were selected for e-commerce pilots. The company decided to partner with existing online platforms, rather than to launch their own online storefront, given that the company does not consider distribution their core capability, be it offline or online.[xv]

But not all strategic efforts have to span multiple categories or extended periods. In fact, data-driven diagnostic tools, such as solutions for online market intelligence, are great to get a quick sense of your online footprint and pinpoint the most promising intersections of categories and channels. A basic diagnostic effort for a single category can be completed in less than a week. Consider the case of a manufacturer of coffee machines. To understand how their brand was doing online, the company deployed a state-of-the-art tool that analyzed online shopping behavior; see the illustrative online purchase structure example in Exhibit 2 below.

Online Consideration Maps

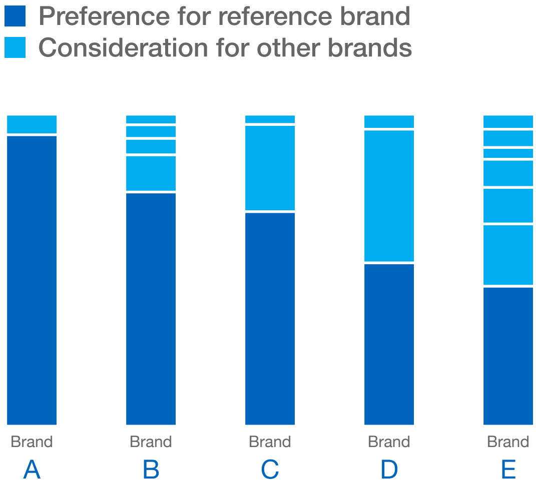
Analyzes consideration phase during online shopping



- Identify competitive landscape (Bubble size refers to number of SKUs within a brand. Lines refer to inter-consideration between brands)

Online Competitive Set

Shows brand focus of consumers and how brands compete for clicks and purchases



- Capture brand strength

EXHIBIT 2

The online consideration structure database included more than a thousand coffee makers, focusing on the models customers were considering at the moment of their online purchases as derived from recommendation engine data (“customers who viewed this item also viewed the following items”). This type of analysis helps companies determine who their real e-commerce competitors are. In certain cases, the online competitive set can be quite different from the offline competitive set. For example, some competitors may have no offline distribution, but a strong standing among online shoppers. In the given case, the analysis revealed that the company was not a relevant player in no-frills categories, such as stove-top and old-school drip coffee makers. However, the team found that the company’s brand had a promising position in two higher-value categories:

- Single-serve capsule machines. In this category, the company was competing only against slightly more affordable clones of their own product.
- Fully automated machines for espresso and cappuccino. In this category, the company’s brand was cross-considered with premium brands.

The company was thrilled to discover that customers who started their digital decision journey with the company’s brand in these categories rarely considered any other brands at all.[xvi] In contrast, shoppers who started with a competitor’s brand frequently switched to, or at least considered, other brands. This showed how strong the company’s brand is. Further analysis of key buying factors revealed that the company’s products were perceived as technologically superior, while most competitors were perceived as providers of better value for money.

Based on these insights, the company focused their online assortment on models in the higher-value categories and adjusted their online marketing mix accordingly. For example, whenever a user searched for a clone, an ad with a special offer for the company's own best-selling capsule machine would be displayed.

How to win – assortment strategy

As an e-commerce startup, you are free to focus on the categories that promise the highest online growth rates – jewelry and watches, furniture, beauty products, you name it. As an incumbent, your principal objective is to protect your market share against such cherry-picking attackers and to make your entire existing assortments deliver value across channels. 52 percent of our survey participants say that "online assortment optimization" is a key concern for their companies. 45 percent are planning to implement a solution to help them win this fight.

For example, a seasoned maker of quality furniture found that the online sales performance of their assortment was inconsistent at best. While some categories were doing well, others were falling behind. In an effort to determine the root causes of the inconsistency, the company engaged in online cross-consideration analysis. They employed an online market monitoring solution to examine thousands of items and the competitors they were cross-considered with by online shoppers. The solution the furniture maker used employs comparable item matching (see EXHIBIT 3) to determine the competitive set. Comparable items were identified by matching product features; think high-backed two-seater sofas with leather upholstery.

Comparable item matching

Almost all consumer goods companies struggle to assess their online competitiveness at the SKU level. If your products are standardized (think printer cartridges), this is relatively easy. But if your products are less standardized (think furniture or apparel), it gets cumbersome. You could try to build the competitive set manually, but this will take forever and is prone to error. What is more, the result will become useless as the online competitive landscape evolves. To solve the problem, state-of-the art eCategory solutions employ an approach experts refer to as comparable item matching. This automated approach is based on the insight that products that have a high overlap in product features are considered comparable from a consumer perspective. Comparable item matching allows companies to compute a comparable item set for each of their products. This benchmark can be used to verify and optimize the consistency of a company's assortment structure, price positioning, and points of difference. Comparable item matching also helps companies find white spaces in their assortment structure and, thus, identify opportunities for future growth.

Price Point comparison for Furniture/Living Room Furniture/Sleeper Sofas

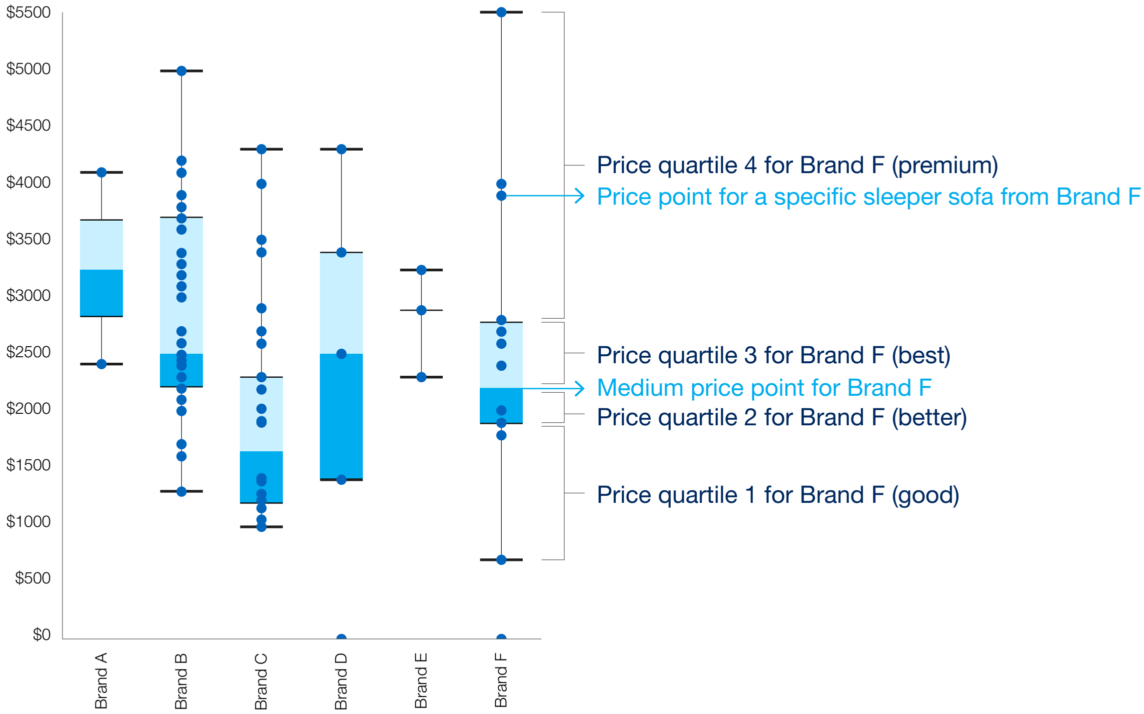


EXHIBIT 3

When the furniture maker looked at the price points of the items that their products were cross-considered with online, they were surprised to find that there was next to no consistency in the competitive positioning. It turned out that the company's products were competing with discount players in some categories, with mid-tier manufacturers in others, and with premium brands in yet others. Their positioning in terms of pricing and brand identity was all over the place. In response to these findings, the company updated their brand positioning, reviewed their commercial guidelines, and introduced a new, data-driven process to price setting across categories.

In another case, a major multi-brand maker of household supplies was struggling with eroding market shares in some categories. A quick diagnostic revealed that the biggest threat did not come from price breakers, but from highly innovative niche players that challenged the company's status quo as the innovation leader in the market. To detect emerging attackers, the company set up what executives there refer to as Innovation Watch; see EXHIBIT 4. The solution employs three sets of criteria to identify innovative products in any given product category:

- Sales, e.g., online sales ranks and changes in rank (50 percent weight)
- Advocacy, e.g., number of reviews, ratings vs. average (30 percent weight)
- Competitiveness, e.g., share of recommendations (20 percent weight)

Innovation Score on Product, Brand, and Segment Level

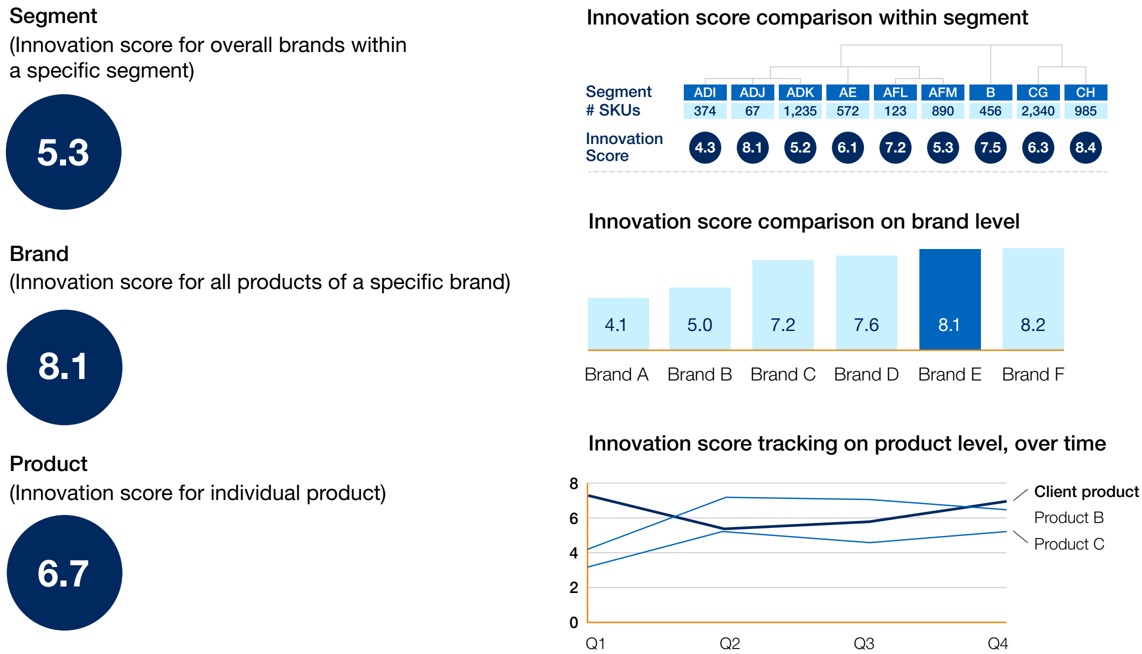


EXHIBIT 4

For example, this system helped the incumbent detect a rising competitor in the air freshener category that the company had previously not been aware of. The online-only attacker had developed a scented liquid in an aerosol bottle that consumers can apply before they use the restroom, rather than after they have used it. Once dispersed, the new product creates a pleasant smell and absorbs any unwanted odor before it can spread. The product sold well and generated considerable buzz online, especially among female consumers. Further analysis revealed that the attacker was already luring some shoppers away from the incumbent's products. At the time of writing, the incumbent was considering whether to take over the startup or develop a similar product in-house.

How to win – pricing strategy

As indicated above, pricing is the area which is perhaps most affected by e-commerce. There is almost total transparency for consumers, and many e-tailers use ever lower prices to generate traffic, ignoring the manufacturer-suggested retail price. We observe three principal strategies at our consumer goods clients to counter this trend:

(1) De-commoditize your brand. If your products are must-have items, possess lighthouse quality in their category, or offer some other unique selling point, your position in negotiations with e-tailers improves.

(2) Differentiate your assortment. Many successful players offer only a selection of their assortment online, or create online-only package sizes and bundles. According to our survey, consumer goods companies that succeed in e-commerce are 1.4-1.6 times as likely as their peers to develop unique online SKUs and bundles.

(3) Launch your own e-commerce channel, either individually or as part of an alliance of like-minded players, to control the entire value chain. While almost two thirds of the executives who participated in our survey said they had considered this option, very few consumer goods companies have been able to execute this at scale.

While some of these strategies go beyond pricing, they are all about preventing price erosion and protecting value.[xvii] But before you can go down any of these avenues, you need transparency. This is why leading companies use online price intelligence solutions that continually monitor online shops to analyze the category coverage and online pricing patterns of key competitors; see EXHIBIT 5. State-of-the-art solutions have dashboards that cover entry price points, exit price points, average price points, and price point distributions at the product level. These solutions also allow companies to track online prices in real time and flag outliers automatically. This kind of price monitoring helps you figure out who is selling your products at which prices. It enables your e-commerce team to object to undue discounts or adjust your pricing in other channels – be it to defend market share, protect brand equity, or repair relations with offline retail partners. 30 percent of the participants in our survey said they were planning to invest in some sort of automated price intelligence tool.

Reference item **Market items** **Best Match**

Attribute Matching

● No Match ● Match

Attribute Set

Attribute	Relevance		Item attribute values				
Price	High	0.15	$74.45	$9.99	No Match	$74.99	Match
Style	High	0.15	Polo Shirt	Polo Shirt	Match	Polo Shirt	Match
Color	Low	0.05	Orange	Orange	Match	Orange	Match
Material	Mid	0.10	100% Cotton	100% Cotton	Match	100% Cotton	Match
Sleeves	High	0.15	Short	Short	Match	Short	Match
Buttons	None	-	1	3	No Match	2	Match
Machine Washable	Low	0.05	YES	YES	Match	YES	Match
Origin	Low	0.05	Imported	Imported	Match	-	No Match
Major Brand	High	0.15	Yes	-	No Match	Yes	Match
Stamp Logo	High	0.15	Large	None	No Match	Large	Match
Item Similarity Score:					0.55		0.95

EXHIBIT 5

For example, a top apparel maker who also sells their products via their own online channel has implemented a data-driven solution to monitor and manage pricing in the online marketplace. If the price for a given item is outside a pre-defined corridor, the system issues an alert. The price watch isn't limited to identical items, but works for reasonably similar products (think sleeveless cotton sundress) as well, thanks to comparable item matching (see Exhibit 5 above). If the solution spots a competitor's special offer for this type of product, the software will suggest a new price to the category manager in charge. The category manager can accept or decline the proposed new price. Any adjustments take effect immediately. The company also employs a complementary price-setting tool for fact-based pricing across a collection's entire life cycle, from exclusive pre-season offers and in-season markdowns to final post-season clearance sales. The solution continually monitors supply and demand, competitors' prices, and the overall market situation to suggest optimal prices for tens of thousands of products across multiple channels, from the company's branded outlets to online platforms. The solution was a key catalyst that helped establish a new, fact-based pricing process at the company.[xviii]

Sounds good? It's just the tip of the iceberg. The possibilities to create value in e-commerce with superior solutions and approaches are almost endless. Other areas in which top consumer goods companies employ eCategory management software include online merchandizing, digital marketing, content management, cross-channel promotion management, and customer relationship management (CRM). But before you invest in solutions or automation of any kind, make sure you have a good sense of the biggest e-commerce opportunities for your company. To help companies avoid a costly build-up of technology in non-core areas, players such as Periscope provide software as a service. This means that seasoned experts with deep category knowledge work with executives to determine the areas in which technological solutions are likely to have the greatest business impact.

In a nutshell

E-commerce will continue to grow at the expense of other channels. At the same time, online research and mobile apps are changing the way shoppers arrive at purchase decisions, regardless of whether they end up buying online or offline. Consumer goods companies need to ready their business systems for this omnichannel world, either by building their own e-commerce channels or by engaging with existing platforms at eye level. Leading players employ data-driven solutions to create transparency and provide decision support across commercial levers, from strategy setting to assortment management and pricing.

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[iv] "To catch up, Walmart goes to Amazon turf", New York Times, October 20, 2013: "Even as Walmart pours money into technology, Amazon is building a physical presence across the nation, adding warehouses and pickup locations. Both companies' moves indicate that they believe the future of commerce is not just stores and not just online but a combination of the two."

[v] See "Digital Marketing Excellence (p. 276) in Retail Marketing and Branding, A Definitive Guide to Maximizing ROI, Second Edition", by Jesko Perrey and Dennis Spillecke, John Wiley, 2013

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[xiv] The Economist, December 4, 2003

[xv] In an even more comprehensive case, a consumer electronics company developed a plan to increase their online penetration by a factor of seven and grow their online revenue by a factor of ten over a six-year horizon. These impressive figures were driven by the fact that a large part of the company's assortment – mostly small, high-value, non-perishable items – was deemed fit for e-commerce.

[xvi] For an in-depth examination of how online shoppers arrive at their purchase decisions, see: www.mckinsey.com/business-functions/marketing-and-sales/our-insights/digitizing-the-consumer-decision-journey (retrieved in June 2017)

[xvii] For details on dynamic e-commerce pricing, see: www.mckinsey.com/business-functions/digital-mckinsey/how-we-help-clients/dynamic-e-commerce-pricing (retrieved in September 2017)

[xviii] For a broader discussion of value management in the consumer goods industry, see Tanya Sivaeva's article on "Value Management Beyond Pricing and Promotions", available at www.gmaonline.org/file-manager/ValueManagementBeyondPricingandPromotions.pdf (retrieved in June 2017). For an end-to-end case study of how Periscope's Price Advisor helped a company infuse the art of pricing with the science of advanced analysis, please see our case study on "Data-driven competitive pricing at Fujitsu", available through www.periscope-solutions.com/resources/case-studies/

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