THE DIGITAL FUTURE
A GAME PLAN FOR CONSUMER PACKAGED GOODS
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THE DIGITAL FUTURE

A GAME PLAN FOR CONSUMER PACKAGED GOODS

PATRICK HADLOCK
SHANKAR RAJA
BOB BLACK
JEFF GELL

PAUL GORMLEY
BEN SPRECHER
KRISHNAKUMAR (KK) S. DAVEY
JAMIL SATCHU
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Executive Summary

Digital technologies are reshaping both consumer demand and competitive dynamics in the U.S. consumer packaged goods (CPG) marketplace.

- Digitally driven innovations are restructuring how consumers shop for and buy CPG products.
- Pioneering companies are creating value by meeting changing consumer expectations with new business models, products, and services.
- Both trends are putting retailers and manufacturers under acute pressure to adapt.

The CPG industry is fast approaching a tipping point; companies need to plan for a “1-5-10” market in the U.S. over the next five years. The experience of other sectors demonstrates that early movers often establish tough-to-trump positions and advantages.

- Digital’s current 1 percent penetration of the U.S. CPG market will likely expand to 5 percent by 2018 and could accelerate to as much as 10 percent soon thereafter. This is both a formidable challenge and an enormous opportunity for CPG manufacturers.
- Digital penetration of 5 percent represents nearly one-half of total CPG growth over the next five years, meaning that companies without an effective digital capability risk stagnation, loss of share, and even shrinking sales. Early movers, on the other hand, have the opportunity to establish positions that will be difficult to dislodge.
- Penetration rates will vary in different locations and categories. Some categories could see digital penetration of 30 percent or more by 2018.
The consumer purchasing pathway is more fragmented than ever before.

- Digital’s impact is greatest in the early stages of the purchasing pathway, when consumers are discovering brands and searching for product options.

- Consumers regularly switch back and forth between digital and physical channels, and they interact digitally both in and outside of stores.

- Continuing disruption along the purchasing pathway is not only possible but likely.

**Traditional retailers face a massive wave of new competitors and competitive models.**

- Large technology companies with deep pockets are building disruptive digital grocery businesses to serve this category and support broader strategic goals.

- Start-ups are using value-added services to take share and build defensible niche positions, often by combining new product offerings with digital channels.

- CPG manufacturers will need to participate in multiple retail models; the winning models have yet to be established, and it is likely that numerous models will prevail.

**The cost of inaction for incumbent manufacturers is losing control of their margins, share, and brand equity in the fast-growing digital channel.**

- Companies that do not play in the digital game are likely looking at flat or shrinking sales.

- Brand equity is at risk as the purchasing pathway shifts online and consumers more often search for and discover brands digitally.

- There is a risk for many manufacturers that their organizations and skills, optimized for the brick-and-mortar marketplace, will be too slow to adapt.

**CPG manufacturers need to reevaluate everything from individual company business models to the industry’s position in the broader consumer marketplace.**

- Individually, companies need to address digital from the top, building new capabilities and making difficult choices and investment trade-offs to defend margins, share, and brand equity.

- All companies can make a series of low-risk, “no regret” moves that will better prepare them for a 1-5-10 world. These steps include developing an integrated strategy for how far the company
needs to go and how to get there, shifting investments to establish a digital brand presence, building the necessary capabilities and organization for a fast-moving digital world, and shaping the evolution to digital with channel partners.

- Manufacturers also need to recast their existing capabilities, including product placement, marketing content development, and supply chain management, for the digital world.
The best way to predict the future is to create it,” Peter Drucker observed. The digital revolution puts the ability to do just that within the reach of almost any company.

Consumers are already there. Aided by digital innovators ranging from behemoth Amazon to start-ups such as Blue Apron and Dollar Shave Club, consumers are rapidly changing—and, in their eyes, improving—the way that they live. They are embracing technologies, devices, and services that make everyday tasks such as shopping, cooking, and even commuting quicker, easier, more fun, and more efficient. They order online, they get suggestions and reminders on their smartphones, and they marry disparate services such as menu planning, ordering, and delivery in ways that even the service providers had not anticipated.

Consumers relish digital innovation for the simple reason that it makes their lives better, which is why digital technologies have disrupted industry after industry—media, travel, and retail, to name a few. Digital technologies empower change driven by consumer demand. Consumer packaged goods (CPG) stand directly in their path.

Countless companies are rushing to meet these changing demands. Amazon is the biggest, and it continues to launch new services and models, such as Prime Pantry and Subscribe & Save. The online pioneer has also blazed a trail for hundreds, if not thousands, of other innovative models and services. Some traditional players, too, are heeding Drucker’s admonition. Walmart’s CEO says his company is focused on “winning at the intersection of digital and physical.”

Plenty of other incumbents, however, have yet to adapt—beyond setting up a simple website or commissioning a mobile app. In an industry that is fast reaching a digital tipping point, where much of the growth will come from digital channels while brick-and-mortar sales crawl along at the pace of the broader economy, these companies run the risk of being left behind to slug it out in a slow-growth offline world.

To help CPG companies determine where their best opportunities to “create the future” lie, the Grocery Manufacturers Association (GMA) asked a consortium of leaders in digital innovation—The Boston Consulting Group, Google, and Information Resources Inc. (IRI)—to pool their expertise and undertake an analysis, including an April 2014 survey of consumers' purchasing-pathway behaviors for online and in-store purchases, of how e-commerce (including m-commerce), omni-
channel retailing, digital marketing, and other technology trends are changing the future for its members. This report presents the results of this analysis. It has three parts:

1. Our assessment of how the principal global and industry trends will reshape the sector over the next five years, especially in the U.S., into a new game for all players.

2. The implications of these trends for CPG companies.

3. A game plan for how manufacturers individually, and the industry collectively, should respond, including low-risk moves for companies to position themselves to better address emerging threats, assess digital and e-commerce investments, and organize their operations for maximum digital-commerce effectiveness.

No company is immune to the changes under way. The experience of other sectors, from media to travel to retailing, repeatedly demonstrates that early movers often establish tough-to-trump positions and advantages. Experience also shows that many companies that are slow to adapt do not get a second chance.
Digital technologies are reshaping both consumer demand and competitive dynamics in the CPG marketplace, irrevocably altering how people shop and how they decide what to buy. Digital innovation has created entirely new patterns of expectation. Consumers, who are enjoying the convenience and value of digital services in other aspects of their lives, expect these benefits in grocery as well. Pioneering companies, some of them old but most of them new, are creating enormous value by meeting fast-changing needs and expectations in the largest, and least penetrated, consumer category. In the process, they are putting retailers and suppliers alike under acute pressure to adapt. CPG companies need to understand and, to the extent possible, shape the shifting retail landscape, because ultimately they will need to participate in new distribution models.

CPG is fast approaching a tipping point. Companies need to plan for a “1-5-10” market in the U.S. over the next five years, in which digital’s current 1 percent penetration most likely expands to 5 percent but could quickly accelerate to as much as 10 percent with breakthrough innovation in delivery models. The 5 percent penetration rate represents nearly one-half of total CPG-sector growth, meaning that companies without an effective digital capability risk stagnation, share loss, or even shrinking sales. The rate and extent of expansion will vary in different locations and categories, sometimes substantially. Digital has already grabbed more than a 10 percent share in diapers, for instance. Shelf-stable categories such as health and beauty, in which consumers can “set and forget” their shopping lists by using online subscription services, could see digital penetration of 30 percent or more over the next five years, especially in dense urban markets such as New York City. Penetration rates will also differ depending on the nature of the category: products often purchased on impulse—chocolate, for example—will play out differently than those whose purchase involves a high degree of consumer engagement.

Digitally Driven Demand
Some consumers can remember the days, a half-century ago or more, when milk, eggs, and butter were delivered daily to the door. A few might even recall horse-drawn, ice-cooled carts on those old milk runs. What goes around, comes around—horses and ice are no longer involved, but millions of people today, in cities from Austin to Boston and from San Francisco to New York, live an updated version of home delivery from such e-commerce services as AmazonFresh, FreshDirect, and Google Shopping Express, as well as start-ups such as Instacart. Millions more receive regular deliveries of household staples through online subscription services such as Ama-
zon’s Subscribe & Save. Technological advancements in retail and other sectors have raised consumers’ expectations by demonstrating new ways that companies can deliver convenience, choice, and value.

Not so long ago, mom (or sometimes dad) prepared a menu of dinners for the week, checked recipes in a cookbook, wrote out a list, and went shopping. Today, more and more people receive menu suggestions daily on their computers, tablets, or phones, order the ingredients online, and have them delivered or pick them up, already packed, on their way home from work. Some seek personalized menu suggestions from companies such as GoJee and Blue Apron, which use their food expertise and big-data analytics to shape taste preferences. Companies such as Greenling, in Austin, Texas, are reshaping the value chain by delivering fresh, locally produced meats, dairy products, vegetables, and other items directly from farms to consumers. The result is delicious and healthy meals, all with fresh ingredients, and everything purchased without anyone having to set foot in a store.

From now on, technology-enabled innovations will drive much of the growth in CPG. Online consumers are already using countless platforms, websites, and mobile apps to improve their lives. These include search engines, social-media sites, and mobile “gatekeepers,” as well as “curated commerce,” “daily deal,” and “superutility” sites and apps. Online consumers are also heavy users of supplier- and retailer-sponsored websites, and they increasingly expect manufacturers to have great content online. New services can catch fire overnight as enthusiastic consumers share their experiences and opinions (along with photos and videos)—an inclination that the new-model providers facilitate. Amazon has gone so far as to introduce its own smartphone, in part to facilitate shopping at its site. On the horizon, but clearly visible, are new device-interaction models, augmented reality, and cognitive-computing-based applications.

As consumers embrace new experiences, their habits shift. Evolving purchasing behaviors in one category can soon transfer to others, driving those segments toward their own tipping points. Not so long ago, personally checking the freshness and arrangement of cut flowers was a central part of the flower-buying experience. Telephone ordering enabled long-distance delivery, but the consumer’s inability to see the actual arrangement was a serious constraint. In the early days of Web-based commerce, 1-800-Flowers leveraged its lead in flowers ordered by phone, recognizing that the digital option offered a better experience for customers. The company invested heavily in digital content, bringing flower shopping to life and helping to drive the cut-flowers market to its digital tipping point. The category now has an online penetration of 15 percent and is growing.

From now on, technology-enabled innovations will drive much of the growth in CPG.

Other categories have experienced similar changes in buying habits as consumer demand and technological innovation combined to overcome constraints. Consider footwear (an “experiential” category—in which the consumer tends to be highly engaged in the purchase decision—with online penetration of 10 percent), sporting goods (a “bulky” category, with online penetration of 12 percent), auto parts (a highly heterogeneous category, with 9 percent online penetration), and small appliances (a commoditized and price-driven category, with 18 percent online penetration). In each of these segments, digital sales rose to a tipping point, then took off once the industry got the digital offering right. (See Exhibit 1.) As technology and innovation drive digital interaction more deeply into U.S. consumers’ daily lives, CPG categories are approaching a similar juncture.

Digital consumers today live in every kind of community and pursue all manner of lifestyles. The pace of digital adoption will continue to vary by demographic segment, however. Our research shows that younger, more affluent, better-educated urban families, who have been conditioned by online pioneers to
expect the benefits that digital commerce can deliver in all aspects of their lives, want more online CPG options now. Many retirees are also digitally engaged (if not quite to the same extent) in their pursuit of convenience and value. And many consumers conduct at least some shopping activities online even when they buy at a physical store. (See Exhibit 2.) In our research, almost a quarter of in-store shoppers reported online activity as one of the three most influential factors on their purchasing pathway. Digital channels currently have the greatest influence on purchases of home care and general food products but are likely to expand in importance over the next five years as the market moves to a 1-5-10 world.

The experience of other large developed markets—the UK, France, and South Korea key among them—shows what can happen. When online penetration in the U.S. grocery industry stood at nearly 1 percent, it was already roughly 5 percent in the UK, 4 percent in South Korea, and 3 percent in France. While digital change may disrupt the U.S. market at different rates across the country, the history of the market economy teaches that consumers almost always prevail—sooner or later. We expect rising penetration rates in the U.S. CPG market to follow those of these early leaders.

A Fragmented Purchasing Pathway

It’s illogical to think that consumers will continue to shop for the same goods in the same ways as they always have, visiting the grocery store, drugstore, or mass-market retailer multiple times each week. Other sectors tell cautionary tales: ten years ago, people still bought CDs in record stores, rented videos and DVDs in video stores, read print newspapers and magazines, and purchased airline tickets and hotel rooms from travel agents. When the music, video, print media, and travel industries reached their digital tipping points, they changed fast. Record and video stores ceased to exist. Print advertising evaporated. Airlines and hotels have been forced to build their e-commerce capabilities to adapt.
to a new world of online travel agencies, search engines, and metamediary services.

Digital shopping has evolved very quickly into a highly complex ecosystem that has fundamentally reshaped—and continues to redefine—the way consumers engage with brands and purchase products. The digital experience has already upended every stage of the traditional purchasing pathway: discover, search, locate, buy, and postpurchase. The new pathway is much more fragmented and dynamic, thanks to the ability of consumers to share their experiences and knowledge. At every stage, they can switch back and forth between digital and physical shopping channels, interact digitally in and outside of stores, and make use of numerous channels over which the retailer has no control. (See Exhibit 3.) These varied shopping channels open up thousands of potential new purchasing pathways, more than five times the number available in the brick-and-mortar world.

Today, the impact of digital is felt most acutely at the early stages of the purchasing pathway. In our research, almost 40 percent of online shoppers and more than 30 percent of offline shoppers reported that technology’s impact is greatest during the discovery phase. More than a quarter of both offline and online shoppers said that its biggest impact is in the search phase.

For all that has been written about how online marketplaces such as Amazon have transformed retail shopping, manufacturers’ brands still matter to buyers, and brand websites can have a significant impact, especially for in-store shoppers early on the purchasing pathway. While Amazon leads in consumer engagement for e-commerce shoppers during the discovery, search, and locate phases, its advantage drops away for online consumers making in-store purchases (and, of course, for offline shoppers, too). The playing field for consumer primacy is still wide open; consumers have not locked in a dominant or even a prevailing source of information and influence. This is especially true for CPG companies. Manufacturers and retailers alike have an opportunity to

**EXHIBIT 2 | Many In-Store Shoppers Also Shop Online**

Respondents ranked the influence on their purchasing decision of online and offline activities

<table>
<thead>
<tr>
<th>Activities that drove the purchase</th>
<th>Shop online/ purchase online (n = 1,132)</th>
<th>Shop online while at store/purchase in store (n = 1,193)</th>
<th>Offline at store/ purchase in store (n = 4,236)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online activity (desktop, smartphone, laptop, tablet)</td>
<td>71%</td>
<td>26%</td>
<td>23%</td>
</tr>
<tr>
<td>Offline activity (newspaper/TV ads, coupons)</td>
<td>17%</td>
<td>48%</td>
<td>59%</td>
</tr>
</tbody>
</table>

24% of in-store shoppers ranked online activity as one of three most influential activities

Respondents in each category who ranked online or offline activities as one of the three biggest influences on their purchase decision

Source: GMA/IRI online grocery survey, April 2014.

Note: Online shoppers are defined as people who shopped online at least once in the last 12 months. Respondents were asked about their most recent purchase. Because some respondents engaged in neither online nor offline activities before making their last purchase, not all percentages add up to 100.
substantially enhance their influence and impact by providing great content online and building direct relationships with customers. At a minimum, manufacturers must take basic steps to keep their digital presence relevant to consumers by, for example, providing an “add to cart” purchase option on their brand websites that connects to their preferred retail partners.

As more users find more ways to employ advancing technologies, new disruptions on the purchasing pathway are not only possible but likely. (See Exhibit 4.) The technology already exists, for example, that would enable consumers to do away with the regular (say, weekly) shopping basket in favor of a continuous stream of purchases transacted in real time. Amazon Dash, for example, a combination digital recorder and barcode scanner, connects to a home Wi-Fi network and works directly with the customer’s AmazonFresh account. The user speaks or scans items into the device, then uses his or her PC or mobile device to make the purchase and schedule delivery. Amazon has embedded quick-shopping capabilities in its Fire smartphone as well. In time, the active participation of the individual consumer may no longer be necessary. Marketplaces or delivery services, such as Google Shopping Express, could receive information from “smart” storage devices or re-
Refrigerators that provide recommendations and make decisions, replacing the shopper’s own decisions about what to buy and when. The one thing that’s certain is that the consumer experience will continue to evolve as more users find more ways to use advancing technologies to improve their daily lives.

The Supply Side: New Technologies and Services Challenge Incumbents

Digital innovation creates a host of challenges for traditional retailers and manufacturers. New service models have simplified people’s lives in other sectors, and consumers see no reason why CPG companies cannot follow suit. Another challenge is the economics of unlimited shelf space. Online marketplaces offer direct and inexpensive access to consumers, which brings low-cost, niche products from new competitors from all over the world into the U.S. market. Promotional models—long rooted in print media, weekly flyers, and couponing programs—are being stood on their head, straining partnerships between manufacturers and traditional retailers. These companies must find new ways to work together to drive traffic to stores, where most grocery shopping still takes place—and will continue to take place.

The industry has thus far responded slowly. Retailers, especially large-format retailers, may feel caught in the classic prisoners’ dilemma: they benefit collectively from maintaining the offline status quo, but individually they cannot afford to hold back for fear that a more aggressive competitor will grab an early-mover advantage. In reality, traditional retailers are already facing a stampede. Pure-play online retailers, innovative brick-and-mortar retailers, technology companies, and start-ups are all placing significant bets on e-commerce models that serve different shopping occasions. Collectively, they are driving the sector toward a tipping point from the supply side, and it is clear that manufacturers will need to participate in multiple models. The good news is that the battle is only just

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**EXHIBIT 4 | The Consumer Experience Will Continue to Evolve**

<table>
<thead>
<tr>
<th>Today</th>
<th>Potential future disruptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Path to purchase: a web of interactions</td>
<td>An even more complex web of interactions</td>
</tr>
<tr>
<td>Planned shopping at regular times (e.g., weekly stock-up)</td>
<td>Shopping blended into everyday routine — anytime, anywhere</td>
</tr>
<tr>
<td>Research by means of specific channels (websites, mobile)</td>
<td>Subtle influences exerted through the consumer’s engagement across many channels</td>
</tr>
<tr>
<td>Basket assembled by adding products at the shelf</td>
<td>Stream of purchases in real time — the basket ceases to exist</td>
</tr>
<tr>
<td>Shopper decides what to buy and when</td>
<td>Shopping service provides recommendations and makes decisions for the consumer</td>
</tr>
</tbody>
</table>

*Source: BCG analysis.*
being joined; the winning business models have yet to be established and there are likely to be many. We can count on Amazon to make sure that warehouse delivery models exist, on Google Shopping Express to expand store delivery, and on Walmart to offer click-and-collect in more markets. The cautionary tale is that the recent past is littered with bankrupt retailers in other categories that failed to adapt when online penetration in their markets was still low—Circuit City in electronics, for example, and Loehmann’s and Filene’s Basement in apparel.

Winning business models have yet to be established and are likely to be many.

CPG companies’ brick-and-mortar retail partners are finally joining the party because if they don’t, the inevitable consequence is consolidation and shakeout offline as sales slow or even shrink. Retailers are scared, with good reason, over the prospect of losing their best customers. Shopping volume is up, but trips to traditional stores are declining. Moreover, the online shopper spends more money than his or her in-store counterpart. Retailers cannot afford to forgo the volume: losing just a single-digit percentage of revenue from a profitable long tail of SKUs puts a store into the red in the low-margin retail-grocery business.

Deep-pocketed players—Walmart, for example—are moving aggressively to integrate digital capabilities. While e-commerce accounts for less than 3 percent of Walmart’s total sales, the company witnessed 27 percent growth in its online revenues in the first quarter of 2014. Doug McMillon, Walmart’s CEO, told the Code technology conference in May that he is focused on the impact of mobile on the shopping experience (both digital and in-store) and on providing click-and-collect and home delivery services. Walmart is “geo-fencing” and “lighting up” its U.S. stores so “customers can have an interactive experience.” The company already offers a pay-with-cash facility, allowing customers to order online from a wide range of merchandise and pay with cash at stores, so those who do not have a credit or debit card can still buy online. It is also exploring crowdsourcing delivery, with in-store shoppers making deliveries for online customers in return for discounts.

None of this is easy. The economics of digital commerce are defined at the SKU level by a simple cost-to-value ratio, that is, the cost of picking and shipping a product relative to the margin dollars that a company receives for that product. For consumer packaged goods, home delivery for individual SKUs starts to be feasible at a price point of $20 to $30, depending on weight and turnover rate. This is much higher than the average price point for most CPG products, which is precisely why widespread proliferation of digital commerce has yet to occur. (It is also the reason why many of the business’s early pioneers, such as Webvan, went bust.) Times are changing, however. In addition to basket economics becoming more favorable for delivery, large technology companies with deep pockets, such as Amazon and Google, are applying new economic tools, such as membership and delivery fees, and sometimes subsidizing the business to support broader strategic goals. (See Exhibit 5.) Their investments are enormous, and these companies are hungry for scale. They will continue to be highly aggressive in courting consumers with attractive offers.

Since 2010, for example, Amazon has invested $14 billion in 50 new facilities. It is believed to be targeting widespread same-day reach: by locating fulfillment centers nearer to the top 20 markets, the company could provide 50 percent of the U.S. population with same-day delivery. Amazon has confirmed plans to expand its AmazonFresh grocery service from Seattle, Los Angeles, and San Francisco to other cities; according to some reports, the company is targeting up to 20 new markets.

Amazon will continue to gain share from brick-and-mortar retailers. In the near term, we expect club, general-grocery, and mass-market stores to come under the biggest threat as online retailers target weekly replenishment and monthly stock-up shopping. These are the easiest orders for companies to pack and deliver, since the demand is known in advance and they tend to involve heavier, more expensive
products and package sizes. There is plenty of pent-up demand. Our research shows that more than 20 percent of Amazon Prime members who have purchased CPG products online expect to purchase more in the future, while only 7 percent say they will buy less. An additional 12 percent of Prime members who have not purchased CPG products online expect to do so in the future. Millennials (aged 18 to 34), who outnumber baby boomers, make up an outsized portion of these consumers.

Statistics such as these are telling—and it should be noted that they represent only a “base case,” or least disruptive, scenario. Experience shows that as digital disruption takes hold in a market, consumers don’t know how to react right away, and growth follows a nonlinear trajectory. People take their time figuring out what they want, but once they decide that they enjoy a particular experience, they want a lot more of it. Consider the explosive growth of innovative services offered by such companies as Uber in transportation and Airbnb in lodging.

Some retailers are responding by working in partnership with delivery platforms such as Google Shopping Express. Google, which recently expanded its delivery service to New York City and Los Angeles from San Francisco, provides retailers with a quick and simple way to compete with Amazon without having to make their own massive investments in delivery systems. It also gives consumers the convenience of constructing a basket across multiple local retailers, and not just those that sell CPG products. An analysis of Google search trends between May 2012 and May 2014 shows increasing interest in online grocery, including a steady rise in purchases of fresh foods, and dramatic early interest in Google Shopping Express.

As the purchasing pathway fragments, new competitors emerge. Start-ups such as Blue Apron, NatureBox, and Dollar Shave Club are using value-added services to take share and build defensible niche positions. As barriers to entry fall, small companies like these can take advantage of low start-up costs, innovative business models, inexpensive digital marketing campaigns, and consumer interest in new marketing approaches to build momentum and chip away at established brands.

All of which pushes the CPG sector closer to the tipping point. CPG companies are seeing
a growing need to simultaneously work with existing retail partners to serve customers through digital channels and establish profitable partnerships with new players.

**Sizing the U.S. Digital Grocery Market**

We are recommending that CPG companies prepare for a 1-5-10 hybrid scenario in which digital penetration accelerates at its own pace in different markets, segments, and categories. The most likely sectorwide scenario is for e-commerce in the U.S. to average 5 percent of the mix by 2018, or more than $35 billion in annual sales. (See Exhibit 6.) We examined current growth rates across categories and locations, as well as the experiences of analogous industries and markets, in developing this assessment.

An average share of 5 percent may not sound like much, but it implies huge change. For one thing, at 5 percent, e-commerce will make up nearly one-half of the total growth in the sector for the next five years. For another, if low-margin brick-and-mortar retailers do not participate in e-commerce growth, there inevitably will be consolidation and shakeout offline as sales plateau or decline and margins collapse. And—perhaps most telling for the longer term—a 5 percent share mix is very close to the tipping point where growth in other categories has accelerated, often jumping from 5 percent to 20 percent or more in just a few years as digital models are perfected. Manufacturers and retailers alike need to maintain their offline capabilities but also jump into digital and be ready for rapid change.

The two dominant models of online grocery thus far are warehouse picking for home delivery and click-and-collect, with consumers placing orders online and picking up their purchases at a store or dedicated facility. The economics of the online business are driven substantially by order density (the number of orders per hour or per square mile), which has an enormous impact on picking and packing and distribution costs. In general, delivery costs behave like variable costs and vary with order density, while picking costs in a nonautomated setup behave more like fixed costs.

Data from the UK, where online grocery is most advanced, show that these costs can together eat up a third of sales under the home
delivery model and a quarter of sales under click-and-collect. But as order density rises, costs fall quickly and can be more than halved for high-density operations. (See Exhibit 7.)

In order to make these economics work, retailers must make a series of trade-offs between pursuing near-term profitability and gaining market share. Do they focus on locations with high-density populations and high Internet and mobile penetration, or do they try to serve broader geographic areas? Do they focus narrowly on younger, wealthier consumers or pursue a mass-market strategy? Do they offer a narrow assortment of categories and products—the most profitable approach—or a broad assortment that increases sales volume more quickly? Complicating such calculations considerably are the big investments being made by deep-pocketed technology companies that are pursuing broader strategic goals.

Retailers choosing near-term profitability over market share growth will target large, densely populated cities with good demographics for e-commerce—New York, Chicago, and San Francisco, for example—in a first wave of online penetration, as many are already doing with pilot programs. A second wave would target medium-size markets, such as Denver, San Diego, and Portland, Oregon, all of which have similar characteristics. (See Exhibit 8.) Manufacturers with products in high-penetration categories, such as health and beauty, or those targeting consumers in big cities will need to be ready to move quickly and work with retailers to gain advantage in these new online businesses.

People shop in different ways to satisfy different requirements (for example, replenishing staples as opposed to filling an immediate need), and e-commerce affects shopping patterns and shopping occasions in varying ways. This adds another dimension to the uneven growth of the online market. So far, the highest online penetration is among goods that need to be regularly replenished, which puts club stores, mass-market retailers, general-grocery stores, and some specialty retailers squarely in the digital crosshairs. But various players are experimenting with all manner of models. Just a few of these include the following:

- Amazon Prime Pantry targets replenishment purchases by allowing Prime mem-
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bers to order a 45-pound box of goods for a flat $5.99 shipping fee.

- Amazon Subscribe & Save targets low-involvement, set-and-forget-type purchases, such as paper towels, bath tissue, and cleaning supplies. Food products also lend themselves well to the set-and-forget model, since the average U.S. household uses only five or six primary recipes and purchases less than 1 percent of the SKUs carried by the typical grocery store.

- Instacart provides staple replenishment and meets customers’ immediate needs with two-hour delivery windows for a $3.99 fee and prices set by the company. Personal shoppers buy products from local, approved stores and deliver them directly to the customer.

- Walmart To Go focuses on value-oriented shopping. Its Denver pilot allows customers to place grocery orders online (with prices identical to those in the store) and collect their purchases at a Walmart store at no charge. Loaders bring orders to the customer’s car, or the customer can pick them up at the drive-through pharmacy window.

Experimentation is running strong. Consumers have plenty of models to choose from. We expect a combination of home delivery and click-and-collect to prevail, given the great variety of consumer preferences and local market conditions within the U.S.
NEW RULES FOR A NEW GAME

1-5-10 WORLD PRESENTS CPG companies with an increasingly fragmented, hybrid marketplace, in which digital growth will accelerate at different rates across segments, and the overall rate is hard to predict. In our judgment, 5 percent growth is the minimum in five years, while 10 percent shortly thereafter is a distinct possibility. This rate and level of expansion represents an opportunity for incumbent CPG players that they cannot ignore. The growth rate of total CPG dollar sales in the U.S. was only 1.5 percent in 2013, and large CPG companies lost more than 2 points of share to midsize and smaller players from 2009 to 2013.

There is a big cost to inaction, too. CPG companies will not only abdicate to retailers the opportunity to shape the evolution of e-commerce in the sector but also risk losing control of their own margins, share, and brand equity in the fast-growing digital channel. Companies that do not play in the digital game are likely looking at flat or shrinking sales. The combination of dynamic pricing and consumers’ ability to receive real-time price comparisons and notifications will squeeze margins. Niche brands can take share online through better search rankings. High rankings beget high rankings, which has dire implications for late-moving CPG brands. Brand equity is at risk as the purchasing pathway continues to fragment and start-ups build defensible positions. Manufacturing, too, will see increased competitive intensity as start-ups source private-label products. The big risk for many CPG players is that their organizations and skills, which have been optimized over many years in the brick-and-mortar marketplace, will be slow to adapt.

An Unfamiliar Environment

CPG companies face a competitive environment that is unfamiliar and potentially hostile to their market share and profitability, as well as misaligned with their organizations and skills. Pricing power, for example, has shifted substantially to the consumer. The Internet brought fresh transparency to this issue, and continuing technology advances, pushed by Amazon and others, have enabled online sellers to dynamically manage prices while consumers follow every move in real time with price-tracking sites and apps such as camelcamelcamel and Pricepinx. The price of a four-pack breakfast cereal on Amazon, for example, recently increased three-fold—from $6.68 to $20.14—in a single week. Dynamic pricing has brought increased volatility to the marketplace, while transparency squeezes margins for the retailer and, ultimately, manufacturers as well.

E-commerce also levels the playing field for niche brands looking to gain share through better sales-based search rankings, the digital equivalent of premium shelf space. The clout
that large trade-promotion budgets gives CPG companies with brick-and-mortar retailers doesn’t count online—best-selling search results are determined by algorithms based on consumer response. Consumer interest, rather than trade spending, drives shelf position. The list of top-selling breakfast foods on Amazon on a random day in May 2014 showed eight of the top ten places occupied by a niche product, Kind breakfast bars. “Mainstream” cereal products from major CPG companies held only 5 of the top 20 places. High rankings tend to produce more high rankings and give early movers, and especially early leaders, a big advantage. CPG companies will find it difficult to dislodge entrenched front-runner products down the road.

Competitive intensity also increases as barriers to entry fall and industry lines blur. New entrants are coming to the market with products or entire multiproduct marketing concepts—such as branded subscription services—that gain traction and popularity through clever digital marketing. They bleed sales from long-standing CPG mainstays. New private-label players, whose marketing, sales, and distribution are entirely digital, have already established strong and growing positions in categories with relatively high online penetration, such as personal care, snacks, and beauty products. Dollar Shave Club has racked up more than 700,000 subscribers since launching in April 2012. Another online shaving-products service, Harry’s, built a big enough base of business—and raised sufficient venture capital—in less than a year to buy a 90-year-old razor-blade factory and secure control over its source of supply.

Wrong Time, Wrong Place, Wrong Capabilities

Unfortunately for CPG companies, hard-won mastery over brick-and-mortar sales does not easily translate online. Merchandising, pricing, and branding are all new ballgames demanding different approaches, skills, and tools. Most CPG companies are ill prepared, owing in part to lack of investment in new capabilities, and they have already ceded significant ground to fast-moving (and, in many cases, new-to-market) competitors. Take the health category. The top five CPG companies have a 30 percent share of brick-and-mortar sales but only a 19 percent share of online sales. The difference between the brick-and-mortar and online shares in vitamins is 18 percentage points; in toothpaste, 30 percentage points; and in toothbrushes and dental accessories, 26 percentage points. Making matters much worse, growth in many such categories has essentially tracked GDP—what growth there is comes from online sales, where traditional players are missing out.

New entrants bleed sales from long-standing CPG mainstays.

In addition to the internal-management, organizational, and cultural challenges that CPG companies must grapple with in setting up digital operations, they may also face painful pushback from major retail partners. According to a February 2014 report in the Wall Street Journal, when big Procter & Gamble allowed Amazon to set up picking-and-shipping operations inside P&G’s warehouses, it quickly came under attack from Target, which demoted the in-store presence of P&G’s products and gave favored shelf space, position, and visibility to the products of competitors. CPG companies cannot turn away from their traditional retail partners, of course, and they will have to determine how best to allocate financial and human resources (sales and marketing budgets and account teams, for example) across traditional and emerging digital channels.

New Success Factors

There are still high barriers to online purchasing, especially in certain categories. Among the highest are the inability of consumers to check for quality, freshness, and product damage and the reluctance of some to pay (extra) for delivery. These are tough hurdles, but new models keep evolving, and consumers are quick to embrace innovations, such as those that take advantage of crowdsourcing and the “sharing economy.”
Many experts have ascribed the advantages enjoyed by online retailers such as Amazon to their ability to offer endless assortment and low prices. This was likely the case in the past (remembering that “past” in the online world can mean last year), but as digital’s influence evolves, low prices have become table stakes. Now the big differentiators for both online and traditional retailers are convenience and trust, followed by value and product assortment. (See Exhibit 9.) Trust means trust in both the brand and the retailer. Convenience includes ease of doing business—a critical consideration for any company looking to enter the e-commerce or, even more significant, the m-commerce game. Value means value for money, not just low price. All players still need to provide the basics—good product quality, assortment, and availability. For online companies especially, speed of delivery could become a differentiating factor, but consumers have yet to decide how key a factor it is.

All this means that traditional retail success factors, such as inspiring out-of-store advertising, catchy in-store promotions, friendly staff, efficient checkout, and valuable loyalty rewards, have given way to a new lineup. Today’s omnichannel success factors are more likely to involve in-depth insights and improved targeting made possible by big data, the powerful economics of cloud computing, automatic-replenishment options, single-click purchasing, integration across devices (including those used by shoppers inside the store and elsewhere), and integration with the broader consumer-information ecosystem.

As the purchasing pathway evolves, key drivers of online commerce will increase in influence and some of the more resistant constraints to online purchasing will start to crumble. CPG companies that innovate in relatively low-risk ways now have multiple opportunities to broaden and deepen their customer relationships, prepare for these tipping points, and establish the basis for lasting advantage in the medium to long term.

### Planning a Response

Digital is an all-encompassing force, not simply another emerging channel. CPG companies need to reevaluate everything from individual company business models to the industry’s position in the broader consumer marketplace. The changes are broad, and

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**EXHIBIT 9 | Convenience and Trust Are Primary Drivers of E-Commerce, Followed by Value and Product Assortment**

![Exhibit 9 Diagram](image-url)

Source: GMA/IRI online grocery survey, April 2014.
companies need to respond both individually and collectively as an industry.

Individually, companies need to address digital from the top, building new capabilities and making difficult choices in order to defend margins, share, and brand equity. Specific tactics will vary, of course, according to the category and current position (offline and online) of each brand and product, but most CPG players will find that they need to develop new skills and capabilities in their organizations and rethink how and where they invest their marketing, brand-building, and trade budgets. Companies with niche products can take advantage of the level online playing field to make targeted online brand-building investments to gain share. Incumbents need to develop great online content and leverage brand equity in order to lock in consumers through, for example, compelling subscription offers.

Even the largest CPG company is limited in what it can do individually, however. The digital shift is too big and too far-reaching. CPG players should investigate forming cross-industry, noncompetitive alliances that focus on solving common problems or addressing shared challenges to gain greater leverage in an increasingly online world. Working together to develop an industry standard to efficiently create, store, and distribute product information (both images and data) online is one possibility. Manufacturers and retailers collaborating to determine the most consumer-centric and cost-efficient supply-chain solutions, which may well involve shared use of physical assets, is another.

Regardless of whether digital penetration stands at 5 percent, 10 percent, or somewhere in between, companies must redefine their approaches with much deeper digital investments; this includes making major shifts in investments and capital allocation, testing big bets with large capital outlays (new packaging, for example, or acquisitions), and building the next wave of needed capabilities in such areas as pricing. We explore these steps in more detail in the next chapter.
CPG COMPANIES MUST LEARN to play a new game, but “going digital” can involve some daunting decisions. While many companies have established a digital presence—a website, some digital advertising, a presence in social media—most have yet to fully integrate digital into their operating model, build a big-data analytical capability, pursue a multichannel (or omnichannel) strategy, or tailor their product offerings to the digital or e-commerce marketplace.

Any company can make a series of low-risk, “no regret” moves in the near term.

Fortunately, there are a series of low-risk, “no regret” moves any company can make in the near term that will better prepare it for a 1-5-10 world—and put it in a strong position to accelerate initiatives in important areas if e-commerce develops more quickly toward 10 percent penetration. These steps address issues related to online strategy and brand equity; category management across channels; partnerships with retailers; supply chain configuration; the willingness to experiment; and organizational capabilities and effectiveness. As companies gain comfort with the digital world, some may decide to place selective bets on game-changing investments such as microconsumer segmentation, partnerships with the technology community, personal and dynamic pricing, and collaborative product development.

Develop an Integrated Strategy
A clear and integrated strategy requires a comprehensive assessment of the role of digital and e-commerce for the company. This means determining how large a digital presence to build for each brand based on the circumstances of its category and market. The strategy must be driven from the top of the organization and requires an objective assessment of the starting point. It should define a sustainable position for each brand or product (profitable margins, steady share) and the capabilities required to get there.

An integrated strategy lays out a company’s digital ambition and level of investment commitment. The key question is how far does a company want to try to go—and how fast. Is it a player in the new game, a fast follower, or does it have aspirations to be a leader? What does it see as its own digital endgame—a competitive capability or a unique, fully integrated omnichannel offering? Part of the answer may lie in the amount the company is willing (or able) to invest to support its ambition and desired pace of growth. Investments need to be calculated by category, brand, and

PLAYING THE NEW GAME TO WIN
market. The strategy will determine how far and how fast the company moves through the phases of digital maturity. (See Exhibit 10.)

The importance of strategy, commitment from the top, and building the right capabilities can be seen in the example of a leading international fashion company. Almost a decade ago, the company was in a bind: its brand was outdated and it was losing relevancy with consumers. The company determined that its most attractive future rested in establishing a strong digital relationship with its customers, especially younger customers who had grown up online; to do that, it needed to become a digital leader. The CEO oversaw development of a multiyear digital strategy, including a series of no-regret moves and a few capital-heavy bets, that has led its organization and investment decisions ever since. The choices weren’t easy, requiring top management to have the courage of its conviction and make hard trade-offs, such as pulling budget dollars from traditional print advertising to fund digital investments.

The strategy unified the company around the goal of becoming the first fully digital brand in its industry. The company made early, low-risk investments in online brand building and social media. It used Facebook to connect with customers and created its own photo-sharing site featuring its fashions, with

### EXHIBIT 10 | CPG Companies Need an Integrated Strategy That Lays Out Their Ambition and Investment Level

<table>
<thead>
<tr>
<th>Five phases of digital maturity</th>
<th>Key questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leading edge</strong></td>
<td>What is your starting position by country or region?</td>
</tr>
<tr>
<td>Product offering tailored to digital/e-commerce</td>
<td></td>
</tr>
<tr>
<td>New partnerships across the purchasing pathway</td>
<td></td>
</tr>
<tr>
<td>Adaptive organization capable of handling change</td>
<td></td>
</tr>
<tr>
<td><strong>Integrated operations</strong></td>
<td>Maturity of the digital and e-commerce offering</td>
</tr>
<tr>
<td>Digital touch points along the full purchasing pathway</td>
<td></td>
</tr>
<tr>
<td>Significant e-commerce with channel integration</td>
<td></td>
</tr>
<tr>
<td>Digital- and e-commerce-friendly operating model</td>
<td></td>
</tr>
<tr>
<td><strong>Insight generation</strong></td>
<td>Top-down benchmarking relative to the industry</td>
</tr>
<tr>
<td>Digital listening, monitoring, and Web mining</td>
<td></td>
</tr>
<tr>
<td>Generation of digital-consumer insights</td>
<td></td>
</tr>
<tr>
<td>Capturing, storing, and analyzing consumer data</td>
<td></td>
</tr>
<tr>
<td>Limited e-commerce</td>
<td></td>
</tr>
<tr>
<td><strong>Consumer interaction</strong></td>
<td>How far do you want to go and how fast?</td>
</tr>
<tr>
<td>First interaction with consumers</td>
<td></td>
</tr>
<tr>
<td>Participation in communities</td>
<td></td>
</tr>
<tr>
<td>Digital not integrated with the operating model</td>
<td></td>
</tr>
<tr>
<td><strong>Digital presence</strong></td>
<td>How much are you willing to invest?</td>
</tr>
<tr>
<td>Activities focus on a basic level of awareness, grabbing consumer attention</td>
<td></td>
</tr>
<tr>
<td>Digital advertising</td>
<td></td>
</tr>
<tr>
<td>Presence in social media</td>
<td></td>
</tr>
<tr>
<td><strong>Basic</strong></td>
<td>Level of investment to support the company’s ambition and pace of growth</td>
</tr>
<tr>
<td><strong>Important</strong></td>
<td>Top-down estimate across the full business, de-averaged by country or region</td>
</tr>
<tr>
<td><strong>Differentiated</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Innovative</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: BCG analysis.
content provided by users. As it progressed, it updated its organizational structure and talent, including appointment of a chief creative officer to run digital. (It’s often necessary to have someone highly placed in the organization who “owns” the digital agenda in order to sustain momentum.) The company has invested 60 percent of its marketing budget in digital channels, three times the industry average, underscoring its commitment.

Having determined that its principal sales channels would be its own online and brick-and-mortar stores, with other retail outlets playing a supplementary role, the company rethought its product distribution and made the heavy capital investments necessary to build a best-in-class e-commerce operation and digitize its real-world stores to create a seamless online-offline experience for consumers. Today the company is one of the most successful in its industry and is looked to as a model for tailoring online content to enhance brand awareness and drive sales.

**Build Brand Equity Online**

It’s a simple fact that brand awareness is not going to be as high or brand perception as easy to control online as in the offline world. There are too many influences at work. Digital commerce requires marketers to rethink how they build awareness and shape perception. It’s also a fact that companies following traditional budgeting processes are likely to underinvest in digital. The priorities need to be set from the top in order for a company to make the right trade-offs.

Consumers get information, advice, data, opinions, and recommendations from myriad sources today. This fragmentation means that a brand’s direct communications, while still important, have less impact. In a world where offline media channels—TV, print, radio—were the loudest voices in the room, companies could push carefully crafted messages out to consumers. In the digital world, consumers are creators and consumers of information, making brand building at least a two-way dialogue. Messages can no longer be controlled to the same degree; shaping brand perceptions is a much more complex task.

Fortunately, consumers have not locked in a prevailing source of influence. They respect brand-sponsored information, so companies need to play in this arena more strongly than ever.

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**Brand perception is not going to be as easy to control online as in the offline world.**

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Companies need to manage perception and awareness through investments that are tied to the purchasing pathway for each brand. For example, maintaining brand awareness probably requires shifting marketing investments to digital vehicles upstream along the pathway. Organizations need a disciplined way to develop a cohesive view of some key questions. These include the role each brand plays in the portfolio, how the category influences consumer engagement along the purchasing pathway, and where along the pathway the brand can differentiate itself.

In answering these questions, companies will define the role of their branded websites as well as other digital brand-building vehicles, such as social media, the digital and offline media mix, and their direct-to-consumer relationships. Successful players will adapt to the new online-offline media world faster than their competitors. Brands must make their way onto shopping lists (offline, online, and mobile) or, better still, lock in customers through subscriptions in order to retain share as the purchasing pathway continues to fragment.

Many leading brands use their websites as publishing venues to drive awareness with rich and varied content that grabs consumers’ attention and directs them to “buy here” links to retailer websites. They invest in digital and bring innovation—such as new functionalities for their websites and mobile apps—to market earlier. One leading snack-food brand, for example, created an online marketing campaign around a virtual world populated with characters that appeal to its young-male customer base.
Successful brands will also shift investments from traditional marketing channels to digital media. Many marketers fear that moving dollars from television or print will decrease the efficacy of those channels. But companies in other industries that have made the move have found that allocating more resources to digital augments other channels and improves impact across all channels. L’Oréal has created an online brand of cosmetics, EM Michelle Phan, which it markets in partnership with the YouTube beauty blogger, whose videos have achieved some 1 billion views.

### Revisit Category Management Across Channels

CPG companies need to have a clear view of the role that different channels play for each brand in their portfolios, and the investments they make along the purchasing pathway must be tied to their channel priorities—particularly whether brand websites are an active sales channel or whether sales are driven exclusively through (offline and online) retail channels.

For each channel, companies need to develop a coherent way to handle assortment, pricing, trade rules, content, and support. They also need to prepare for channel conflict. Working with leading digital players such as Amazon is most likely necessary, regardless of how brick-and-mortar retailers may respond. There are multiple tactics for managing channel conflict. Companies can choose some combination of the following:

- **Differentiate the product assortment across channels on the basis of the role that each plays in the portfolio.** Nespresso, for example, sells its coffee makers in several brick-and-mortar and online channels, including traditional retailers and its own website. But it reserves the largest assortment of accessories for its website, and it sells its coffee capsules *only* through its own retail and online outlets.

- **Make prices on brand websites distinct from those in brick-and-mortar channels.**

- **Differentiate pack sizes in different channels to minimize conflict and make price comparisons more difficult.** For example, Keurig offers a 24-pack of K-Cups on its website while selling larger pack sizes on Amazon. The company offers its broadest product assortment online and uses the digital channel as a learning lab for all channels.

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Successful brands will shift investments from traditional marketing to digital media.

- Develop a product that is available exclusively online. Mars created its customizable My M&M’s as a premium offering available only on the brand website.

- Develop an exclusive online brand, as L’Oréal did with EM Michelle Phan cosmetics.

### Partner with Retailers

CPG companies already work effectively with retailers in multiple ways to boost sales. They need to transfer that cooperation to online category management. The consumer data that both parties generate, for example, can be combined with syndicated data to generate actionable insights into consumer behavior. These insights become all the more valuable as the purchasing pathway fragments.

One step that most CPG companies will want to take is to build joint e-commerce account plans with their top brick-and-mortar retailers—as well as with Amazon—in order to gain exposure to the e-commerce ecosystem and access to a laboratory for experimentation. Online retailers are particularly adept at running controlled experiments to identify, for example, those variables most likely to influence consumer behavior, a capability that CPG companies can leverage. Manufacturers will need to recast their account teams to make sure that digital teams receive adequate resources, even if this means reducing the size of their brick-and-mortar teams. They may have to source talent for their digital teams from elsewhere in the company or
from outside. It’s unlikely that an account manager for a brick-and-mortar retailer will have the requisite skills to suddenly switch roles and manage an account team for Amazon or another online retailer.

CPG companies also need to recast their existing capabilities for the digital world. Take optimizing shelf placement, for example, an area in which CPG companies and retailers have collaborated for decades. The online game is played on a different board with new rules, necessitating a revised approach. The new approach, in turn, calls for the development or acquisition of new skills in areas such as the following:

- **Shelf Placement.** In the real world, this is about optimizing the positioning of products given limited real estate. Online real estate is unlimited and search rankings are often based on consumer preferences.

- **Navigation.** In the store, this is about banners and placement next to related categories. Online, the priority is making sure products get listed in the right departments with the right tags and that product reviews are highlighted.

- **Touch and Feel.** Making consumers develop an emotional connection with a product on the shelf is a very different kind of challenge than creating a rich, virtual consumer experience, especially on a seven-inch smartphone screen.

- **Information.** In a similar vein, printed posters, flyers, catalogues, and brochures are very different mediums of communication than digital devices.

CPG companies need new capabilities in multiple areas. These include content development, which requires both developing in-house skills and building new external partnerships; talent (most brick-and-mortar category-management experts don’t have a strong working knowledge of e-commerce models); consumer insight, which means building an understanding of what excites the consumer online; and organizational alignment—companies need to align marketing and sales around online category-management strategies that are likely foreign to existing marketing and sales staff.

CPG companies will need to participate in and serve multiple distribution models.

**Rethink Supply Chain Configuration**

CPG companies will need to participate in and serve multiple distribution models. They can start now to strengthen the core capabilities that will be needed, while refraining from placing large capital bets in the near term, since the models will continue to evolve. Manufacturers can collaborate with retailer partners to address key issues such as the following:

- **Demand Forecasting.** Manufacturers and retailers need to learn to read demand signals more accurately and closer to the point of demand. Traditionally, demand forecasting has been done using point-of-sale data, which looks backward. Digital commerce generates forward-looking demand signals before the sale, such as products added to wish lists on users’ mobile phones. We are already seeing such signals of the intention to purchase in other categories, such as those in which gift and baby registries are used.

- **Response Time.** Companies will need to build in flexibility to meet changing service-level expectations, such as quick replenishment to meet delivery guarantees.

- **Transparency.** Manufacturers and retailers need to develop the means and standards to share data across the supply chain.

As e-commerce volume grows, the implications for packaging will emerge for fast-moving SKUs, while inventory-holding questions will arise for slow-moving products. Manufacturers and retailers can anticipate these issues and prepare their responses now.
Fast-moving SKUs are going to require “e-friendly” packaging that is economical, logistically advantaged (lightweight, leak proof, damage proof, and shaped to fit a rectangular shipping box), as well as consumer friendly. Slow-moving SKUs raise a different set of issues: how might the line of inventory ownership between retailer and CPG companies shift, for example, and how should manufacturers respond (offering more limited assortments, for example, or outsourcing fulfillment)? In the long run, manufacturers and retailers will need to work together to determine the most consumer-centric and cost-efficient supply-chain solutions, which one day may require sharing of physical assets.

Test, Learn, Scale
Digital technology and the surrounding ecosystem of commercial activity are both evolving much too quickly for companies to follow a traditional three-to-five-year approach to planning. Consumer expectations are being set every day by technology companies, which have deep pockets and thrive in an environment of constant, fast-paced change. CPG companies need to rethink their investment allocation, moving money upstream on the purchasing pathway to reach consumers where they are being influenced about products and purchases today. They also need to develop an adaptive strategy to investment, experimenting with different approaches, quickly measuring results, and then terminating initiatives that do not work and putting more resources behind those that do.

An adaptive strategy is a big change for many companies. There needs to be a commitment across the entire organization that is driven from the top. One approach is to articulate bold ambitions that underscore the priority being placed on the effort. For example, 3M sets the goal of earning 30 percent of its revenue from products introduced in the last five years, and the company aligns its culture and incentives accordingly. 3M has long allowed its employees to spend up to 15 percent of their time on projects of their own choosing.

The adaptive approach affects all departments and organizational levels; it will have an impact on dealings with external partners as well. The finance function, for instance, needs to take a holistic approach, managing different tranches of investments, some of which will have learning—rather than strict financial returns—as a primary objective; making trade-offs across departmental budgets; and functioning according to the adaptive needs of the business rather than according to slow and rigid annual budget cycles.

Companies will need to build in flexibility to meet changing service-level expectations.

An adaptive approach requires adherence to strong metrics, set in advance, that will be the primary criteria for determining success. Financial and activity metrics should be developed for each brand, along with the data, tools, and processes that will be used to measure and track progress.

CPG companies face a frightening series of choices. There can be 70 or more marketing initiatives competing for investment resources—a dozen or more along each step of the purchasing pathway. (See Exhibit 11.) Companies need a systematic approach—employing smart prioritization and frequent iteration—that rigorously assesses investment pockets and determines which bets to place and how and when to take lessons from each bet. They also need to diversify their bets by taking calculated risks across the overall portfolio and “de-averaging” their investments. Each category, channel, and market will serve a specific purpose and operate in a different environment. Complicating matters is the need for digital priorities to reflect the requirements of multiple objectives and stakeholders. Patience can be a virtue. In our experience, most companies need time and practice to become comfortable with, and effective at, an adaptive approach to investment decisions.

Build an Adaptive Organization
Organizationally, CPG companies need to invest in new configurations, processes, and ca-
Exhibit 11 | There Is Intense and Complex Competition for Investment Funds

<table>
<thead>
<tr>
<th>Discover</th>
<th>Search</th>
<th>Locate</th>
<th>Buy</th>
<th>Postpurchase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visibility on Internet</td>
<td>Overall user experience</td>
<td>Product assortment structure on site</td>
<td>Shopping basket</td>
<td>Order confirmation</td>
</tr>
<tr>
<td>Corporate websites</td>
<td>Search performance compared with that of competitors</td>
<td>Price/delivery details noted</td>
<td>Simple checkout process</td>
<td>Delivery tracking</td>
</tr>
<tr>
<td>Social networks</td>
<td>Functional website-navigation tools</td>
<td>Functional elements for product selection process</td>
<td>Easy registration form</td>
<td>Delivery packaging</td>
</tr>
<tr>
<td>Viral networking</td>
<td>Product information</td>
<td>Clear selection flows</td>
<td>Smooth checkout flow</td>
<td>Delivery occurs</td>
</tr>
<tr>
<td>Blogs/pinboards</td>
<td>Site accessibility across languages and devices</td>
<td>Online coupons</td>
<td>Smooth checkout process</td>
<td>Returns managed</td>
</tr>
<tr>
<td>Photo/video platforms</td>
<td>Site look and feel</td>
<td>Widgets/apps</td>
<td>Delivery details explained</td>
<td>Prompt repurchasing</td>
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<td>Online-search marketing</td>
<td>Smooth payment flow</td>
<td>Solicit customer feedback</td>
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<td>Display advertising</td>
<td>Product information</td>
<td>Informational website</td>
<td>Policies and services noted</td>
<td>Solicit reviews of products</td>
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<td>Site accessibility across languages and devices</td>
<td>Location-based services</td>
<td>Point-of-sale QR codes</td>
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<td>Site look and feel</td>
<td>Online coupons</td>
<td>Smart appliances</td>
<td>Customer profile management</td>
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<tr>
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<td>Widgets/apps</td>
<td>Policies and services noted</td>
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pabilities—including digital marketing, online account management, packaging, and content development—if they are to fully integrate digital with all the other elements of their businesses. The key decision is whether to “incubate” digital capabilities by centralizing them within a single function or unit—a digital center of excellence (COE)—or to “infiltrate” these capabilities across the entire organization.

As with so many other decisions about digital, there is no one right answer. Each organization’s strategic goals, existing structure, culture, and access to talent will determine the approach. Our experience shows that companies use four basic models (see Exhibit 12):

- **Centralized**—a centralized strategy and execution with brands and business units providing input but not exercising control.

- **Hybrid**—a centralized strategy and process while digital content remains localized within brand organizations.

- **Built-in**—digital capabilities are pushed out and integrated into brand organizations.

- **Standalone**—development and execution of digital strategies are delegated to business units, along with clear revenue and profit objectives. The business units are responsible for securing their own dedicated digital resources.

Each of these models may involve a COE, whether in a consultative (expert advisor) role, a service center (back office) role, or an operational (key decision maker) role.

Each approach has strengths and risks to be managed. A centralized structure facilitates achieving benefits of scale, with respect to both talent and activities, and furthers coordination and best-practice sharing within and across functions. It is potentially less responsive to the needs of business units, however.

A hybrid approach balances the need for scale with the ability to embed capabilities within the organization. It can be more easily tailored to different strategic objectives. However, problems can arise if issues are not clearly laid out, with proper linkages and alignment with business units well defined. Governance can also be more difficult.

A built-in structure maximizes integration of digital and e-commerce functionality and can heighten the digital and e-commerce capabilities of the entire organization. It increases the ability to deliver a seamless experience to consumers across channels. To function properly, it requires clear ownership of decisions and a process for identifying and disseminating internal and external best practices. Companies also need to maintain a strong emphasis on skills development, constantly sourcing, evaluating, and developing talent.

Each organization’s goals, structure, culture, and talent will determine the approach.

A standalone structure can leverage components of the traditional business (warehouses, for example) but is not bound by their existing ways of operating. This approach has particular advantages in a market that is moving quickly to e-commerce, as there is less concern about making tough decisions with traditional brick-and-mortar retailers. Developing a standalone business provides some protection against retailer backlash, since the goal is to compete rather than compromise. It can lead to duplication of resources that raise the cost of operations, and there’s the risk that a business operating in its own silo will make decisions that are not consistent with broader corporate objectives.

**Manage Internal Tensions**

Omnichannel operations are complex. Regardless of a company’s organizational structure, multiple tension points are likely to arise that must be addressed:

- **Inventory needs to be managed, present-ed, and delivered in a channel-agnostic manner despite varying offline and online strategies for different brands and product lines.**
EXHIBIT 12 | Four Organizational Models Are Emerging

**Centralized**

- **Structure**
  - CEO
  - Sales
  - CMO
  - CFO
  - COE
  - Brand A
  - Brand B

- **Characteristics**
  - Centralize strategy and execution, with brands/sales providing indirect influence
  - Digital/e-commerce functions centralized to leverage scale
  - Brands provide indirect influence/guidance

**Hybrid**

- **Structure**
  - CEO
  - CMO
  - BU
  - Sales
  - Other marketing services
  - COE
  - Brand B
  - Brand A

- **Characteristics**
  - Centralize strategy/process while keeping content localized within brands/sales
  - Digital/e-commerce responsibilities distributed across the organization
  - Org structure tailored to different objectives (e.g., best practices centralized, but brands manage the customer relationship)

**Built-in**

- **Structure**
  - CEO
  - BU 1
  - BU 2
  - Sales
  - Brand A
  - Brand B
  - Brand C
  - Brand D

- **Characteristics**
  - Capabilities are pushed out and integrated into brand and sales organizations
  - Digital/e-commerce capabilities integrated into existing functions

**Standalone**

- **Structure**
  - CEO
  - BU 1
  - E-com BU
  - BU 2
  - Sales
  - Marketing
  - Finance
  - Brand A
  - Brand B
  - Brand C
  - Brand D

- **Characteristics**
  - Treated as a separate business unit with dedicated resources and economic objectives
  - Clear revenue/profit objectives
  - Operates under a separate P&L
  - Mission typically differs from that of the traditional business
  - Typically staffed with e-savvy, high-energy talent

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Digital/e-commerce activities 💚
Nondigital/e-commerce activities 🍼

**Source:** BCG experience.

**Note:** Organizational structures depicted are only intended to convey the logic behind the model.
• Ideally, online and in-store operations will have their own respective approaches to pricing, given differences in the cost to serve each channel, but near-total price transparency means that consumers will be quick to pick up on pricing disparities.

• Budgeting processes have traditionally divided funds by channel (trade, marketing, e-commerce) based on prior-year numbers, but as the purchasing pathway fragments, the distinctions between channels blur and become harder to define and measure.

• Accounting lines between brand-marketing and trade-spending dollars are fuzzy and create conflicts when working with online retailers such as Amazon. New buckets need to be defined for both budgeting and managerial profit-and-loss purposes.

• Incentives and metrics often push business owners to optimize single-channel results to the detriment of overall business goals.

• New disciplines are emerging (online category management and Amazon account management, for example) that cause conflict as companies seek to either integrate them with traditional counterparts or incubate them separately.

• In-store and online promotions, if not coordinated, confuse consumers and lead to suboptimal economics.

• Assortment decisions need to be made across channels, but cross-channel considerations slow decision making.

• IT systems and processes are often unable to provide a single collective view of merchandise, inventory, and consumers across channels.

• Brand messaging and content need to be consistent across channels to minimize consumer confusion.

These are difficult and complex issues. They have no right answers, but each requires a consensus solution—or a dictate from the top—to keep pain levels in check. Collectively, they may lead to collaboration becoming an ascendant cultural value in CPG companies as they adapt to the digital world.
While Peter Drucker talks of creating the future, Franz Kafka reminds us that “from a certain point onward there is no longer any turning back.” The CPG industry has reached the point of no return. The only questions left are how deep and disruptive the digital revolution will be, and how quickly (or slowly) CPG companies, both individually and collectively, will turn the disruptive energies to their own ends.

This report has provided an overall game plan for the 1-5-10 world. The history of other sectors demonstrates time and again that those that are quick off the starting blocks establish a big advantage in the race. CPG companies that want to win will start developing their own digital game plans now.
NOTE TO THE READER

About the Authors
Patrick Hadlock is a partner and managing director, Shankar Raja is a principal, and Bob Black is a senior advisor in the Dallas office of The Boston Consulting Group. Jeff Gell is a senior partner and managing director in the firm’s Chicago office and head of the consumer products sector in North America. Paul Gormley is director of commerce partnerships and Ben Sprecher is business development lead at Google. Krishnakumar (KK) S. Davey is president and Jamil Satchu is a partner at IRI Global Analytics & Consulting.

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For Further Contact
For further information, please contact one of the following:

Patrick Hadlock
Partner and Managing Director
BCG Dallas
+1 214 849 1500
hadlock.patrick@bcg.com

Shankar Raja
Principal
BCG Dallas
+1 214 849 1500
raja.shankar@bcg.com

Bob Black
Senior Advisor
BCG Dallas
+1 214 849 1500
extblack.bob@bcg.com

Jeff Gell
Senior Partner and Managing Director
BCG Chicago
+1 312 993 3300
gell.jeff@bcg.com

Paul Gormley
Director of Commerce Partnerships
Google
+1 415 806 3428
pdgormley@google.com

Ben Sprecher
Business Development Lead
Google
+1 617 875 2470
sprecher@google.com

Krishnakumar (KK) S. Davey
President
IRI Global Analytics & Consulting
+1 312 726 1221
krishnakumar.davey@iriworldwide.com

Jamil Satchu
Partner
IRI Global Analytics & Consulting
+1 312 726 1221
jamil.satchu@iriworldwide.com

Karin Croft
Associate, Industry Affairs and Collaboration
Grocery Manufacturers Association
+1 202 295 3927
kcroft@gmaonline.org

Elise Fennig
Vice President, Industry Affairs
Grocery Manufacturers Association
+1 202 295 3947
efennig@gmaonline.org