

BCG

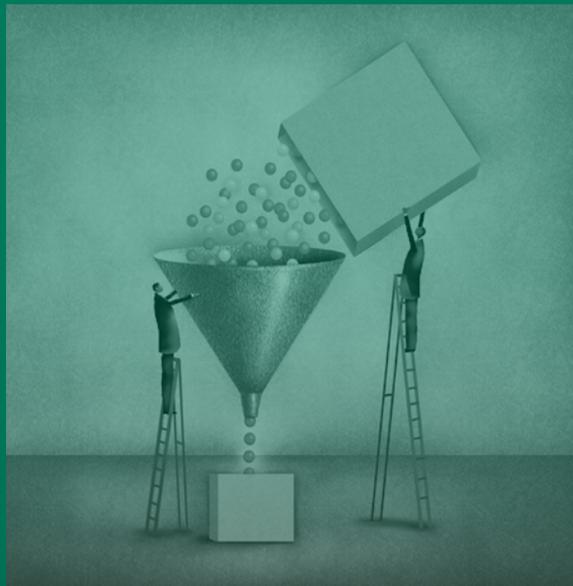
THE BOSTON CONSULTING GROUP



GMA SUPPLY-CHAIN BENCHMARKING 2012

UNLOCKING THE HIDDEN VALUE OF COMPLEXITY
MANAGEMENT AND COLLABORATION

The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients from the private, public, and not-for-profit sectors in all regions to identify their highest-value opportunities, address their most critical challenges, and transform their enterprises. Our customized approach combines deep insight into the dynamics of companies and markets with close collaboration at all levels of the client organization. This ensures that our clients achieve sustainable competitive advantage, build more capable organizations, and secure lasting results. Founded in 1963, BCG is a private company with 78 offices in 43 countries. For more information, please visit bcg.com.



Based in Washington, D.C., the Grocery Manufacturers Association is the voice of more than 300 leading food, beverage and consumer product companies that sustain and enhance the quality of life for hundreds of millions of people in the United States and around the globe.

Founded in 1908, GMA is an active, vocal advocate for its member companies and a trusted source of information about the industry and the products consumers rely on and enjoy every day. The association and its member companies are committed to meeting the needs of consumers through product innovation, responsible business practices and effective public policy solutions developed through a genuine partnership with policymakers and other stakeholders.

In keeping with its founding principles, GMA helps its members produce safe products through a strong and ongoing commitment to scientific research, testing and evaluation and to providing consumers with the products, tools and information they need to achieve a healthy diet and an active lifestyle. The food, beverage and consumer packaged goods industry in the United States generates sales of \$2.1 trillion annually, employs 14 million workers and contributes \$1 trillion in added value to the economy every year.

GMA SUPPLY-CHAIN BENCHMARKING 2012

UNLOCKING THE HIDDEN VALUE OF COMPLEXITY
MANAGEMENT AND COLLABORATION



AAARON BROWN

JJEANNE IGLESIAS

JJEFF GELL

EELFRUN VON KOELLER

JJEFF WRAY

CONTENTS

- 3 EXECUTIVE SUMMARY**
- 6 BREAKING THE TRADEOFFS AMONG COSTS, INVENTORY, AND SERVICE**
 - How CPG Companies Are Performing on Key Indicators
 - How Top Companies Break Traditional Tradeoffs
 - Key Questions for Supply Chain Executives
- 15 MANAGING COMPLEXITY FOR SUPERIOR VALUE**
 - Massive Gains—and Losses—Related to Complexity Management Capabilities
 - The Need to Turn Strategic Intent into Systematic Action
 - The Challenge of Internal and External Alignment
 - Key Enablers for Managing Complexity to Unlock Value
 - Key Questions for Supply Chain Executives
- 20 OPTIMIZING COLLABORATION'S STRATEGIC POTENTIAL**
 - Opportunities to Cut Inefficiencies and Fuel Profitable Growth
 - Basic Collaboration—but with Pockets of Innovation
 - Major Obstacles to Progress: Capabilities, Technology, Trust, and Commitment
 - Key Enablers for Deepening Collaboration
 - Key Questions for Supply Chain Executives
- 27 MOVING FORWARD**
- 28 APPENDIX**
- 31 NOTE TO THE READER**

EXECUTIVE SUMMARY

CONTINUED MACROECONOMIC DIFFICULTIES HAVE forced manufacturers of consumer packaged goods (CPG) to focus their supply-chain-logistics strategies even more intensely on reducing costs and optimizing working capital. Despite these efforts, opportunities for improvement still exist in both areas.

- CPG manufacturers' supply-chain-logistics costs as a percentage of sales fell by 9 percent from 2010 through 2012, on average, while costs per case rose more slowly than inflation. However, these averages conceal substantial variations among companies. For example, there is a sixfold difference in the cost per case between the top and bottom performers.
- Average inventory levels remained near their historic low point in 2012, but again the differences in performance are stark. The leanest company held 21 days of supply on hand in its ambient network; at the other end of the spectrum, another held 112 days of ambient supply.
- For the first time in a decade, service levels have begun to show signs of a decline, albeit from 2010's historic high, suggesting that some companies' cost-cutting initiatives might have gone too far.

Detailed analysis of companies' performance over the 2010–2012 period revealed interesting trends that challenge long-held beliefs.

- Some companies have managed to balance lower costs with higher levels of service. The leading companies break the tradeoff between costs and service by looking beyond traditional methods of cost and inventory reduction. They adopt a customer-centric approach, which includes tailoring their supply chains to different customer segments and focusing on two key drivers: complexity management and collaboration with trading partners.

- Greater scale has not helped all companies drive down costs: we found no correlation between levels of scale and costs. Increasing scale can introduce a greater level of organizational complexity, which in turn can add costs. Furthermore, many companies grow in ways that do not create scale—for instance, across different categories or locations.
- Maintaining high inventory does not necessarily drive service performance: our analysis found no significant relationship between high inventory and service levels. These results highlight an opportunity for companies to have a more fact-driven, disaggregated, and deliberate approach to optimizing inventory levels.

Better complexity management offers a huge opportunity for unlocking additional value, estimated to be worth up to \$28 billion across the industry. But to release this value, companies need to look beyond SKUs and approach complexity from a more systematic, companywide perspective.

- Of the companies we studied, 90 percent cite complexity management as a strategic problem, yet only about 25 percent are systematically addressing the issue. Most manufacturers are doing only basic, ad hoc complexity management, often focused on SKU rationalization; in doing so, they overlook broader companywide opportunities to release value.
- One of the major obstacles to more-effective complexity management is a lack of internal alignment. Nearly two-thirds of manufacturers have difficulty establishing a companywide focus on complexity. Quantifying the costs of complexity is another stumbling block.
- Manufacturers that excel at complexity management treat it as a holistic, companywide exercise, supported by senior leadership and cross-functional teams. They quantify the costs and benefits, and they focus on profit maximization, not just cost reduction. They also institutionalize complexity management—for instance, by making brand and supply-chain teams jointly responsible for the P&L.

Collaboration with trading partners provides another rich source of untapped value, worth up to \$21 billion industrywide. Nearly all companies studied have embarked on this journey, but few have moved into the advanced stages. A more systematic, strategic approach is required across the industry.

- Of the companies we studied, 95 percent said that collaboration is a strategic focus for their business and nearly all of them have initiated related projects or established dedicated collaboration teams. In addition, two-thirds of manufacturers indicated that their level of collaboration increased during the 2010–2012 period.
- Most companies are at the beginning of their collaboration journey; few manufacturers have built long-term, strategic relation-

ships with retailers. Several companies are pioneering advanced solutions, although often only at a pilot level. These initiatives range from tablet tools that allow customers to visualize delivery route alternatives to sharing of store-level point-of-sale data daily in order to identify and address out-of-stock issues at the shelf.

- Approximately one-third of manufacturers consider lack of trust and commitment to be a significant barrier to collaboration. Other major obstacles include technology and data-sharing issues, as well as problems quantifying and sharing the benefits of collaboration.
- Companies that successfully collaborate at an advanced level have a long-term strategic vision, supported by “top to top” alignment between the senior management of both trading partners, as well as supporting infrastructure such as dedicated cross-functional collaboration teams.

BREAKING THE TRADEOFFS AMONG COSTS, INVENTORY, AND SERVICE

SINCE THE GROCERY MANUFACTURERS Association's (GMA's) last supply-chain-logistics benchmarking survey in 2010, manufacturers of consumer packaged goods (CPG) have continued to face challenging economic headwinds. Many have responded by intensifying their focus on cutting costs and optimizing working capital, but this avenue to superior performance will at some point reach its natural end. And while some CPG manufacturers have successfully balanced lower costs with improved service, businesses on average have suffered slight drops in service levels.

Given these factors, it is time to go beyond traditional cost-cutting and find the answer to a different question: How can CPG manufacturers unlock additional value? This report, the eighth in the GMA's benchmarking series focused on manufacturers' outbound-supply-chain logistics, points the way forward.

There are still significant opportunities for nearly all companies to improve their supply-chain performance. Our analysis indicates that traditional assumptions regarding tradeoffs among costs, inventory, and service don't always hold true. We found that higher inventory does not always equate to better service, and scale does not automatically lead to lower costs. (See the sidebar "Questioning Conventional Wisdom.") Instead, the winners manage the tradeoff between cost

and service by focusing on less utilized, customer-centric levers such as complexity management and collaboration with trading partners.

Some CPG manufacturers have successfully balanced lower costs and improved service.

The report builds on the GMA's 20 years of supply-chain-benchmarking experience and related publications but differs from its predecessors in three key ways:

- *A Focus on Complexity Management and Collaboration.* The report provides a deep assessment of two major drivers of supply chain value that have yet to be fully utilized by the industry: complexity management and collaboration with trading partners. It analyzes manufacturers' approaches to these two drivers and identifies key ingredients of strategies that successfully exploit the drivers to unlock their hidden value.
- *A Special Feature on Direct Store Delivery (DSD).* In addition to covering warehouse-based supply chains, this report includes a

QUESTIONING CONVENTIONAL WISDOM

Manufacturers should challenge conventional wisdom, particularly bearing in mind that the data we collected revealed several surprises:

- There is no consistent observable relationship between cost and service levels. Some companies have managed to balance lower costs with higher levels of service, while others fare poorly at both.
- There is no direct relationship between scale and costs for outbound logistics. This counterintuitive effect could be driven by a few factors. As organizations grow, the organizational and portfolio complexity typically increases, which

can erode the gains from scale. Companies also often grow in ways that do not allow scale to be created in specific functions, such as by expanding into new categories, channels, or locations.

- Higher inventory levels do not automatically drive higher service levels. In fact, no consistent correlation between inventory and case fill rate is apparent in the data. Just adding inventory to drive service levels is not a silver bullet. Improving service levels requires advanced planning and replenishment systems that allow companies to make sure that the right SKU is in the right location at the right time.

high-level look at DSD, a topic that we began to follow 15 years ago in a report jointly published by the GMA and The Boston Consulting Group (BCG). Survey results from 18 companies that use this go-to-market approach highlight what best-practice performance looks like. Detailed results of the DSD benchmarking survey are available through the GMA's Direct Store Delivery Committee.

- *A Much Richer Source of Data.* The analysis in this report is based on a survey of 51 U.S. CPG manufacturers (33 of them reporting only on warehouse-based supply chains, 13 only on DSD supply chains, and 5 on both), supplemented by interviews with 65 supply-chain executives at the companies. It also incorporates data that BCG gathered by polling 116 attendees at the February 2013 Supply Chain Conference—jointly hosted by the GMA and the Food Marketing Institute—including retailers' views. Furthermore, it draws upon BCG's experience working with many of the leading CPG manufacturers and retailers in the U.S. Detailed data can be found in the appendix at the end of the report.

Here (and in subsequent chapters), we outline the key findings of our study, primarily focusing

on companies using warehouse-based supply chains.

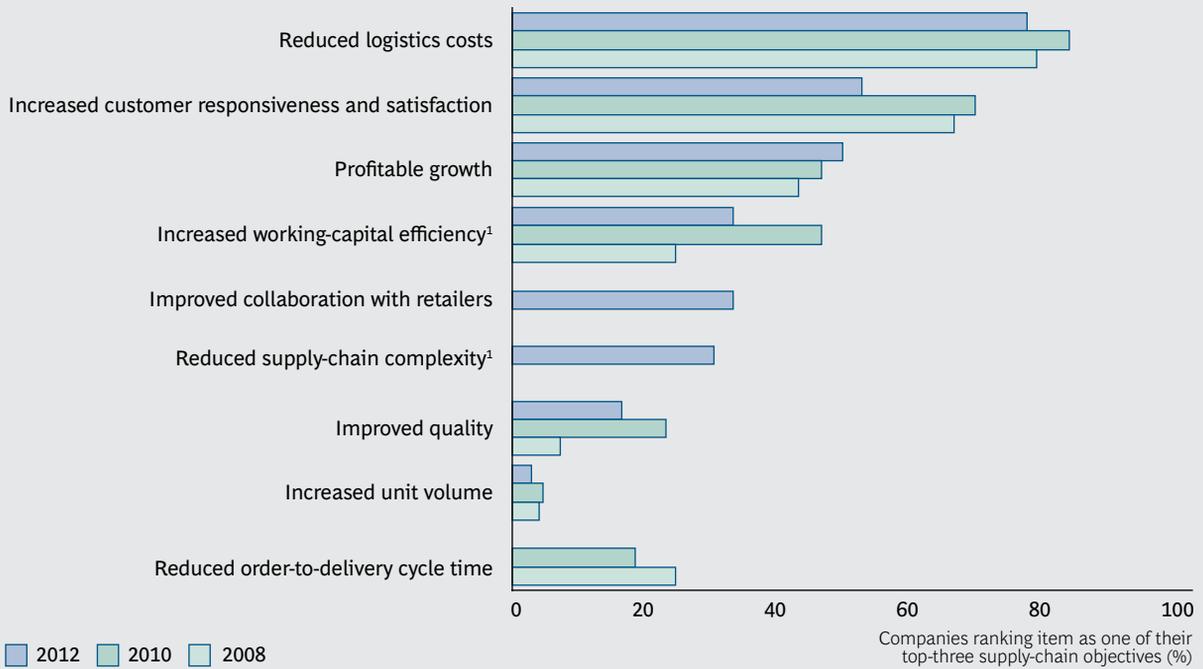
How CPG Companies Are Performing on Key Indicators

The survey data collected showed positive trends in cost and inventory but a slight negative trend in service levels for CPG manufacturers.

Costs Continue to Fall but with Wide Variations. Reduced supply-chain-logistics costs remain at the top of the industry's agenda (it was the concern most commonly cited among companies' top-three concerns), followed by responsiveness to customers and profitable growth. (See Exhibit 1.) Lower costs were also the number-one priority cited in the 2010 GMA benchmarking report. Since then, CPG manufacturers' relentless focus on cutting costs has paid off: logistics costs as a percentage of sales have fallen an average of 9 percent, while costs per case rose more slowly than inflation. (See Exhibit 2.)

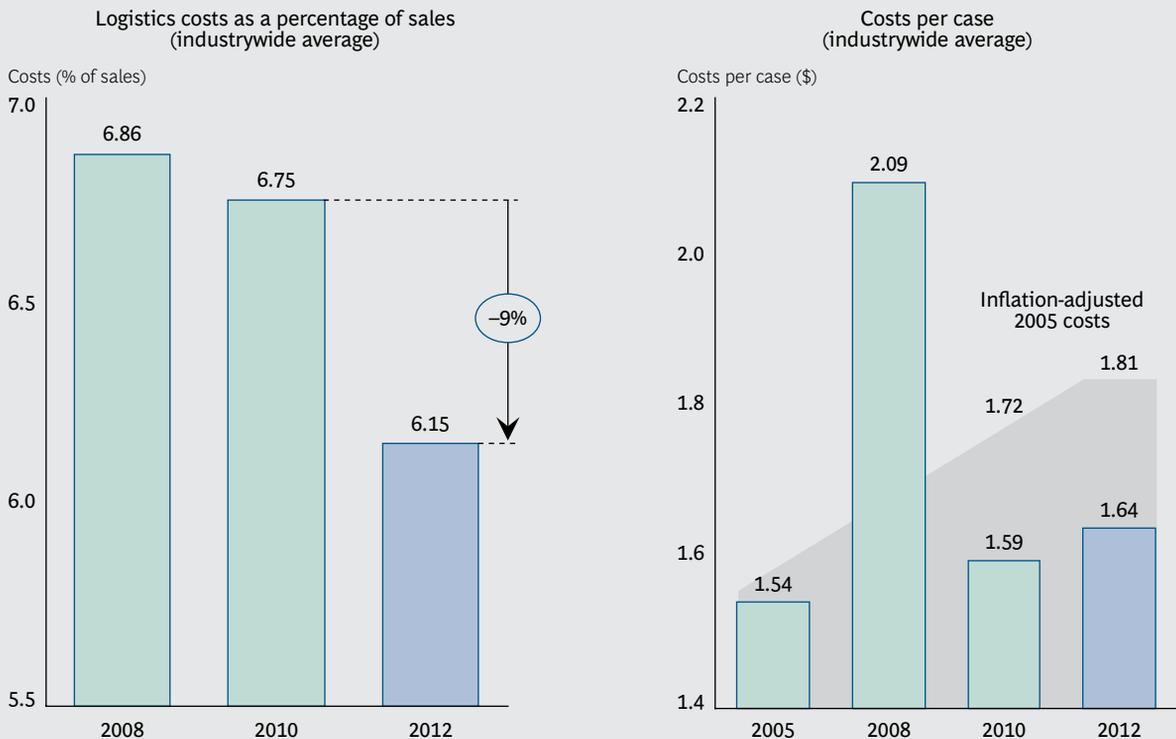
Although the average costs across the supply chain have fallen, the aggregate data conceal wide performance variations among companies. For example, there is a sixfold differ-

EXHIBIT 1 | Cost Remains at the Top of the Agenda of CPG Manufacturers



Source: GMA Supply-Chain Benchmarking Survey 2012.
¹New option in 2012 survey.

EXHIBIT 2 | The Focus on Efficiency Is Paying Off with a Decrease in Logistics Costs



Sources: GMA Supply-Chain Benchmarking Survey 2012; U.S. Bureau of Labor Statistics.
Note: Inflation-adjusted costs were calculated using the consumer price index, which reports 17.6 percent cumulative inflation from 2005 through 2012. Some transportation costs increased even more dramatically—for example, the producer price index for line haul railroads shows 41.8 percent, and the PPI for truck transportation shows 20.0 percent, both during the 2005–2012 period.

ence in costs per case between the top and bottom performers, ranging from \$0.55 to \$3.04, and an 8 percentage-point difference between the cost of sales for top and bottom performers, ranging from 2.8 percent to 10.5 percent of sales. Variations are driven partly by structural differences among companies, such as the size and weight of cases shipped or the manufacturing-network structure. However, deeper analysis of the data revealed strong differences even among very similar companies, showing the importance of operating performance.

Inventory Levels Stay Low. In their drive to increase working-capital efficiency, companies have continued to make impressive progress in reducing inventory levels. In 2012, survey respondents held 37.8 days of stock, on average, only slightly above the historic low of 36.4 in 2010—and well below averages observed during earlier years of the GMA’s benchmarking. (See Exhibit 3.) Most companies held 26 to 40 days of finished stock in inventory but, once again, we found substantial variations. Companies with ambient supply chains had inventory as low as 21 days or as high as 112 days, and inventory levels ranged from 3 to 53 days for refrigerated

supply chains and 18 to 83 days for frozen supply chains.

Service Levels Are High but Show Slight Declines. Although manufacturers have made progress with costs and inventory levels, the news for service levels is less encouraging: these have started to decline, on average, albeit from a historic high point in 2010. (See Exhibit 4.) On-time deliveries—measured as deliveries that met requested arrival dates—on average fell by 2.5 percent to 90.5 percent from 2010 through 2012. Case fill rates also fell slightly, by 0.5 percent. Several interviewees expressed concern that the drop in service could be the downside of the relentless cost-cutting. “We used to pride ourselves on high service, but in the past few years that focus has slipped, with all the emphasis on efficiency,” stated one supply-chain executive.

One fact that surprised many of our interviewees was that the median for case fill rates across the industry is now consistently 99 percent, raising expectations for supply chains to sustain this exemplary delivery even as they face pressures to cut costs and inventory.

EXHIBIT 3 | Inventories Have Remained Near Their Historic Low Point

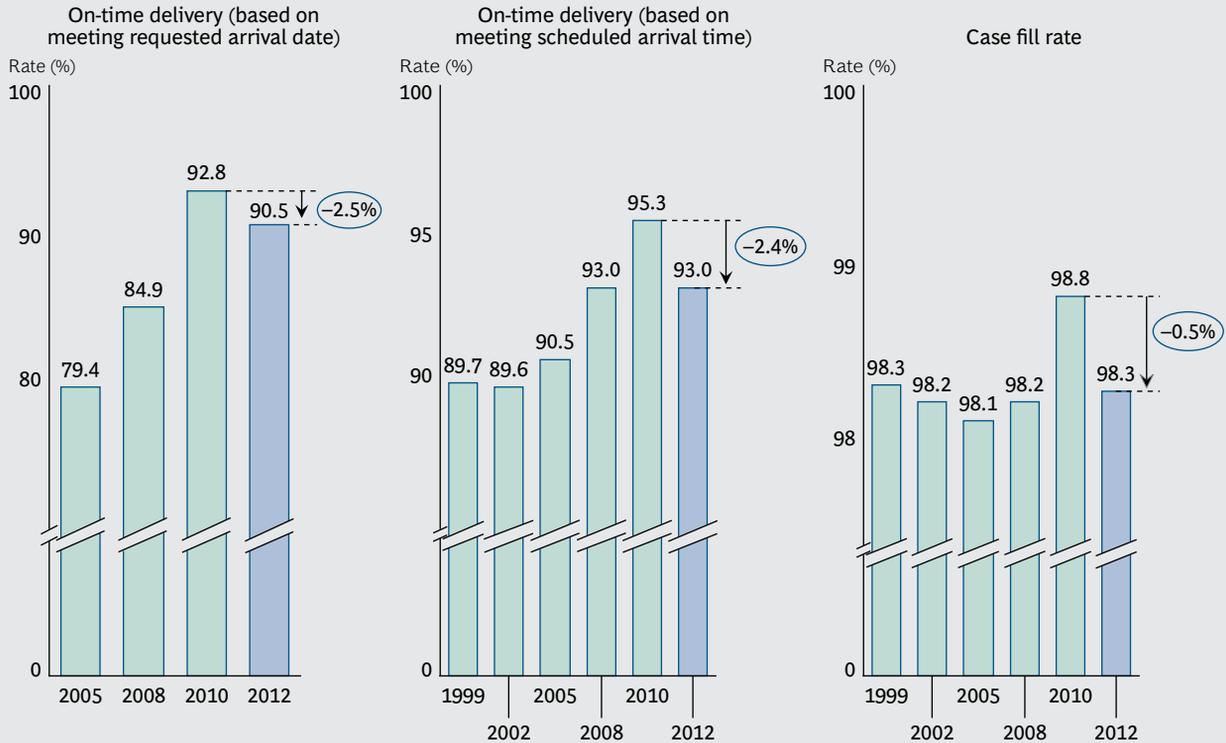
Days of finished-goods inventory supply (industrywide average)



Source: GMA Supply-Chain Benchmarking Survey 2012.

EXHIBIT 4 | Has the Relentless Focus on Costs Hurt Service Levels?

Both on-time-delivery rates and case fill rates have declined, albeit from historic highs



Source: GMA Supply-Chain Benchmarking Survey 2012.

How Top Companies Break Traditional Tradeoffs

Despite the slight general downward trend in service levels, several companies have successfully balanced lower costs with high levels of service. (See Exhibit 5.)

Greater scale is not the explanation for superior performance. We found, contrary to popular thinking, no significant relationship between scale, defined here by the number of cases shipped, and average operating costs, defined here by costs per case. (See Exhibit 6.) There are two possible reasons for this surprising finding. First, the complex organization structures of many CPG manufacturers make it difficult to achieve greater efficiency. Second, many companies have grown in ways that do not necessarily generate economies of scale—for example, by expanding to additional locations, which does not necessarily permit logistical synergies, or by moving into new categories.

Some companies might be reluctant to reduce inventory, in the belief that higher inventory

levels are necessary to ensure high-quality service to customers, but our analysis indicates that this relationship between inventory and service, measured by case fill rates, does not generally hold true. (See Exhibit 7.) Inventory level alone is not the ticket to success. Rather, a fact-driven, disaggregated, and deliberate approach is the best way to optimize inventory levels and achieve high service at the same time.

How do the top companies, those that excel in terms of both costs and service, do it? We have found several common characteristics among the high performers. They have an engaged leadership team focused on operational excellence. They have tailored their supply chains to customer needs that are often different across distinct segments, on the basis of criteria such as profitability, sales channels, and location. They tackle complexity head on, and they collaborate with trading partners to drive growth and efficiency. (For characteristics of companies that use DSD supply chains instead of or in addition to warehouse-based

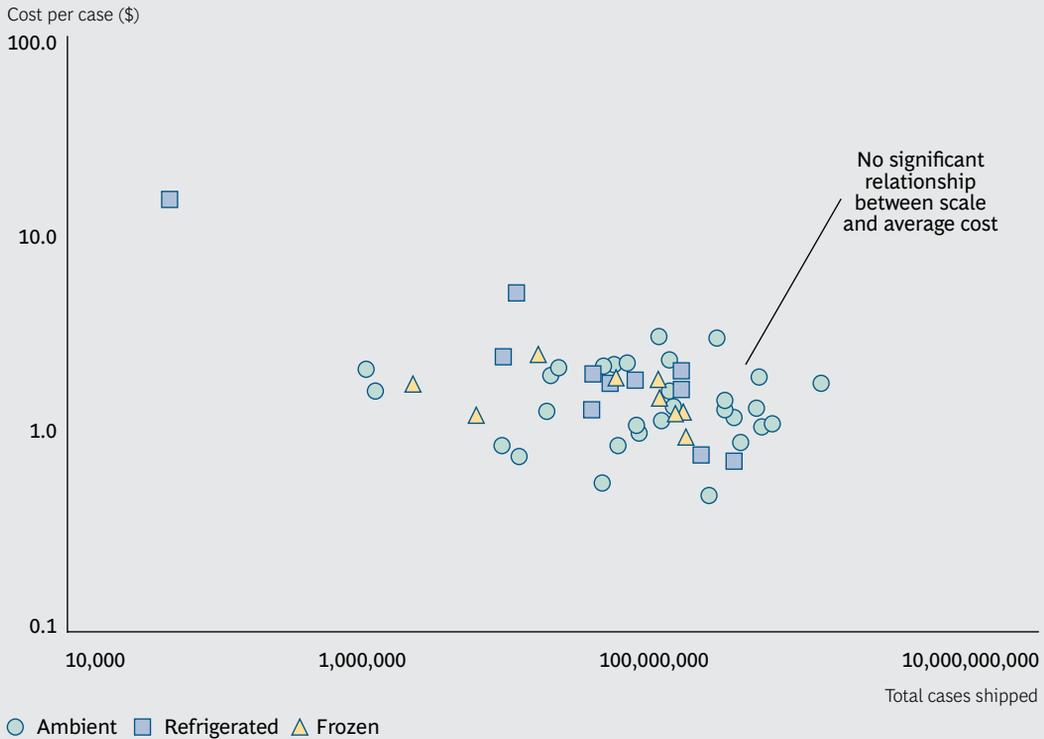
EXHIBIT 5 | The Best Companies Break the Compromise Between Cost and Service to Excel on Both



Source: GMA Supply-Chain Benchmarking Survey 2012.

Note: The on-time case fill factor is calculated as the case fill rate multiplied by on-time delivery (as determined by meeting requested arrival dates).

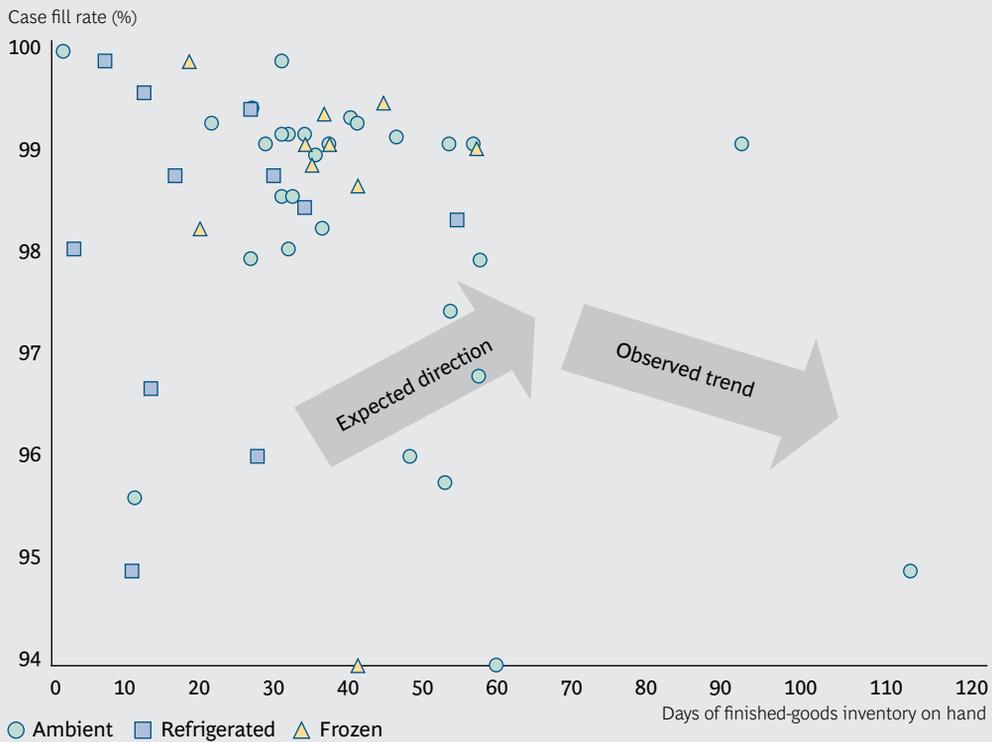
EXHIBIT 6 | Scale Economies Do Not Seem to Hold



Source: GMA Supply-Chain Benchmarking Survey 2012.

Note: Both axes have a logarithmic scale.

EXHIBIT 7 | Higher Inventories Have Not Helped Improve Case Fill Rates



Source: GMA Supply-Chain Benchmarking Survey 2012.

supply chains, see the sidebar “DSD’s Challenges and Opportunities.”)

- *Focusing on Operational Excellence.* Analysis of the data did not reveal any consistent patterns among the companies that lead in terms of costs as well as service. They are in different categories—from refrigerated-food to personal-care products—and have different overall scale and different operating models. However, our discussions with executives at many of these leading companies revealed a common thread: the best-performing companies have very engaged supply-chain leadership teams that work in an integrated fashion across supply chain functions. Moreover, the entire supply-chain team typically knows the major operating and financial metrics “off the top of their heads.”
- *Tailoring Supply Chains to Customer Segments.* To make significant cost reductions without undermining service, the leading companies vary their approach for different customer segments and different SKUs. Several interviewees

mentioned differentiating service levels by customers, for example, providing higher-level service to larger customers. One supply-chain manager revealed, “All of our business units can choose a few must-have SKUs for which we promise close to a 100 percent service level. Everything else will be lower.” Some companies reassess and reconfigure the design of their supply networks to reflect different customer needs. For example, they designate certain production facilities for custom products or they relocate distribution centers closer to their main customers.

- *Viewing Complexity Through the Eyes of Consumers.* Understanding where complexity adds value, as a point of competitive differentiation, and where it adds only costs and should be removed is critical to success. This requires viewing the supply chain through the eyes of consumers and the market. CPG manufacturers can differentiate themselves through innovative packaging or ingredients, for example, and if those innovations meet the needs of consumers or open the door to new consumer seg-

ments, they could pay off. If they don't lend value to consumers, they are likely to constitute unnecessary complexity.

- *Collaborating More Strategically with Trading Partners.* Collaboration is essential not just to improve forecasting and

consequently to manage inventory levels more effectively but also to reduce product waste, “empty miles” transport costs, and other inefficiencies. It can also help trading partners better understand consumer needs and thus create the basis for further growth.

DSD'S CHALLENGES AND OPPORTUNITIES

DSD is the second-most-used distribution method of CPG manufacturers in the U.S. Although it can be slightly more costly for manufacturers than alternative delivery systems, it offers substantial benefits, such as faster lead times and increased promotional lift. DSD is especially beneficial for fast-selling products with high seasonality and specific handling or freshness requirements. As with warehouse-based supply chains, we found substantial variations in the performances of the 18 DSD-based companies we assessed. Among the key characteristics of companies using DSD are the following:

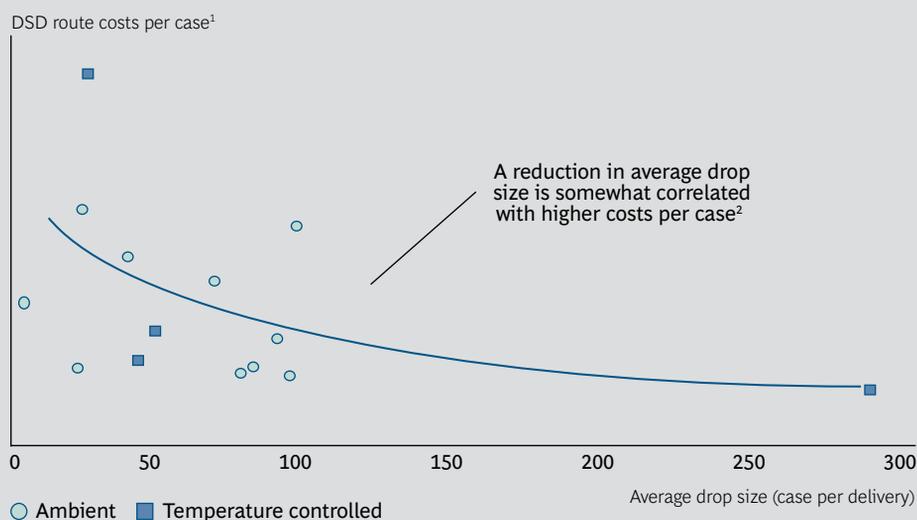
- *Drop sizes are an important driver of unit costs.* The top performers' costs per sale

are lower by a factor of three than those of the worst performers, and their costs per case are lower by a factor greater than five. Drop sizes play a key role in these costs. (See the exhibit below.) Traditional van sales—often used for smaller formats or remote regions—are typically 40 percent more expensive than the multistep networks that are used for larger formats and involve preseller, merchandising, and delivery representatives.

- *Service levels vary broadly among companies and channels.* Large-format outlets receive more than twice as many deliveries and more than three times as many merchandising visits per month as smaller

Drop Sizes Are an Important Driver of DSD Costs

Smaller drop sizes are more expensive to deliver



Sources: GMA DSD Supply-Chain Survey 2012; interviews with CPG company executives.

¹DSD route costs per case reflect the sum of direct costs, route operations, sales and administration, and support; upstream replenishment costs are excluded.

²Log-log regression, R-squared = 0.2.

DSD'S CHALLENGES AND OPPORTUNITIES (continued)

outlets. However, the wide variation of service levels among companies cannot be explained by differences in sales per outlet. Companies that are delivering high-end service need to ensure that they are reaping the benefits of that additional service. There is less variation in weekend service and order lead time: on average, three-quarters of companies deliver on weekends and the typical cycle time is 24 hours.

- *Big opportunities to improve working capital remain for some companies.* Inventory days on hand range from 6 to 50, highlighting substantial potential for some companies to improve their working capital. Manufacturers with temperature-controlled products tend to hold higher levels of inventory, possibly because of the lack of storage in retailers' facilities. Companies also have very different policies for receivables, with days of sales outstanding ranging from 1 to 50.

- *Use of advanced technologies can still be scaled up.* Most DSD companies use advanced technology, but it is not often rolled out across their networks. For instance, 94 percent of companies have electronic data interchange but use it for only 24 percent of their sales. Similarly, 27 percent of companies have scan-based trading (SBT) technology but use it for only 8 percent of their sales. SBT works best on certain types of categories, which might explain that relatively low number.
- *Companies are using trading-partner collaboration.* Many DSD suppliers, among them PepsiCo, are leveraging collaborative methods such as advance shipment notifications to improve order accuracy and streamline the backroom check-in process. Pallets or carts can be checked in by scanning unique serialized bar codes attached to each.

The next two chapters focus on complexity management and collaboration with trading partners; these two drivers offer major opportunities to unlock additional value from supply chains and have yet to be significantly tapped by CPG manufacturers.

Key Questions for Supply Chain Executives

The benchmarking findings pose some key questions for supply chain professionals or executives in the CPG industry:

- Are your goals ambitious enough, given the best-practice performance?
- Where could there be additional cost and inventory opportunities in your supply chain?
- Is your organization prepared to deliver against the service levels that have become standard across the industry—for example, 99 percent case fill rates— at reasonable cost?
- Does your management team have operating and financial data at the ready? Can team members quickly and accurately describe the supply chain performance and the reasons for variations? Or do they need to dig further down into the organization to get accurate information?
- Do your planning and replenishment processes deliver inventory at the right place at the right time in order to reduce the tradeoff between inventory and service?
- Have you thought strategically about how to differentiate your service for distinct customer segments and products?

MANAGING COMPLEXITY FOR SUPERIOR VALUE

BETTER COMPLEXITY MANAGEMENT OFFERS the biggest opportunity for CPG manufacturers to unlock additional value. Across the industry, \$16 billion to \$28 billion in profits are being squandered through unnecessary complexity. But to release this value, companies need to look beyond SKUs and approach the issue from a more systematic, companywide perspective. However, better complexity management is only one way to release substantial value. There are also significant opportunities through greater collaboration, as we discuss in the next chapter.

Although variety can add value by providing consumers with greater choice, virtually all companies we talked to recognized that they have reached a point where the cost of complexity often outweighs the benefits to consumers. For example, in one segment (French fries), one company had more than 800 SKUs and more than 100 unique cut specifications. Similar complexity can be found in nearly every consumer-goods segment, spanning ambient, refrigerated, and frozen products.

Too many companies believe that successfully managing complexity is simply a question of reducing supply chain costs, traditionally done by cutting the low-selling products that make up the SKU “tail.” But SKUs are only the tip of the complexity iceberg. Effects of complexity ripple throughout the organization, affecting the length of production runs

in manufacturing, the proliferation of different channel and customer requirements in sales, and the number of suppliers that the procurement department manages, for example. Instead of looking just at cutting SKUs, the supply chain needs to work in a systematic, integrated manner with every facet of the business across the value chain—from manufacturing to sales and marketing to procurement—to identify and remove costly complexity and to deliver and enable smart complexity that drives consumer value and sales.

Smart complexity involves focusing on products that better serve specific consumer segments or are better suited to a particular channel, for example. Complexity needs to be viewed through a market lens, not a pure cost lens. What is visibly different and valuable to the consumer, and does that consumer benefit outweigh the additional cost of complexity?

Massive Gains—and Losses— Related to Complexity Management Capabilities

The potential gains from better complexity management are huge. According to BCG’s experience, the CPG industry could increase its profit margins by 3 to 5 percent and boost its sales by up to 5 percent with more-effective complexity management, particularly by focusing on the bestsellers, reducing “shelf clutter,” and allowing innovation to shine.

Conversely, in general there is little to be gained by increasing complexity. Complexity increased dramatically during the 2001–2011 period without any commensurate rise in sales for the industry. (See Exhibit 8.) However, some companies may have benefited by offering more variety and managing complexity well.

Nine out of ten companies claim that complexity management is a strategic problem.

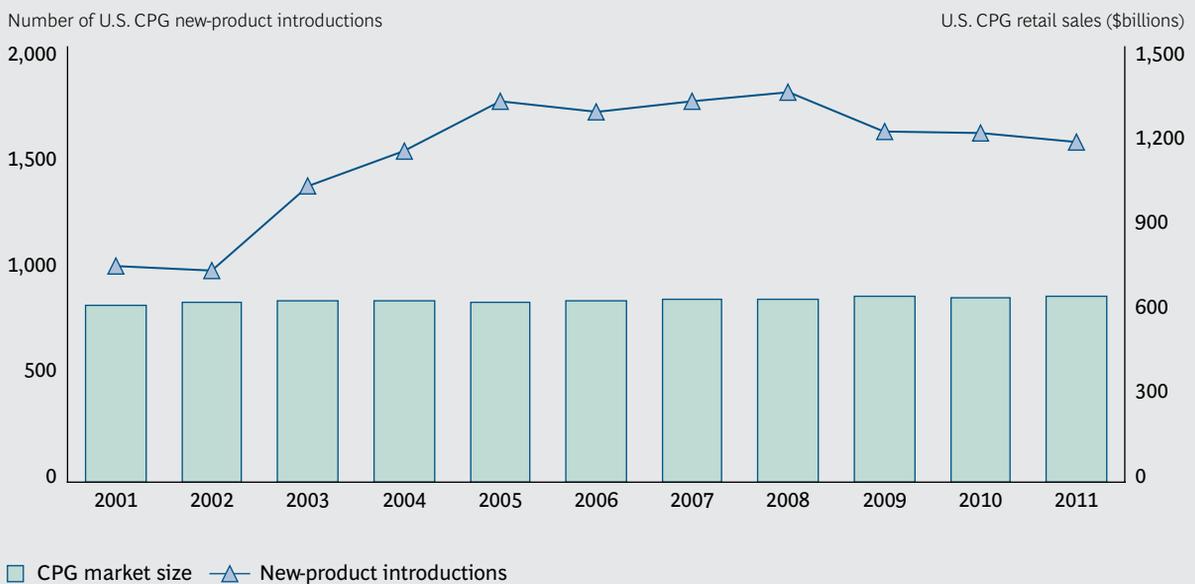
There is a significant amount to be lost through additional complexity. These costs are felt not just at the level of the SKU but throughout the business. Companywide costs of complexity include increased manufacturing downtime, working capital being tied up in excess inventory, and challenges across procurement, warehousing, and forecasting. These challenges can be further magnified by multifaceted sales and marketing positionings that can confuse consumers.

The Need to Turn Strategic Intent into Systematic Action

Manufacturers cite various hurdles to managing complexity, from difficulties in measuring the collective impact of incremental complexity to the challenges of securing companywide focus on the issue in large, complex organizations. But the most fundamental problem is turning strategic intent into concrete, systematic action. Despite the fact that nine out of ten companies claim that complexity management is a strategic problem—or “a significant pain point,” as one interviewee called it—only 26 percent are systematically addressing the issue. (And most address it through complexity reduction.) For example, only 16 percent of the companies whose executives we interviewed have ongoing complexity initiatives and just 10 percent are working to instill a culture of simplicity. (See Exhibit 9.)

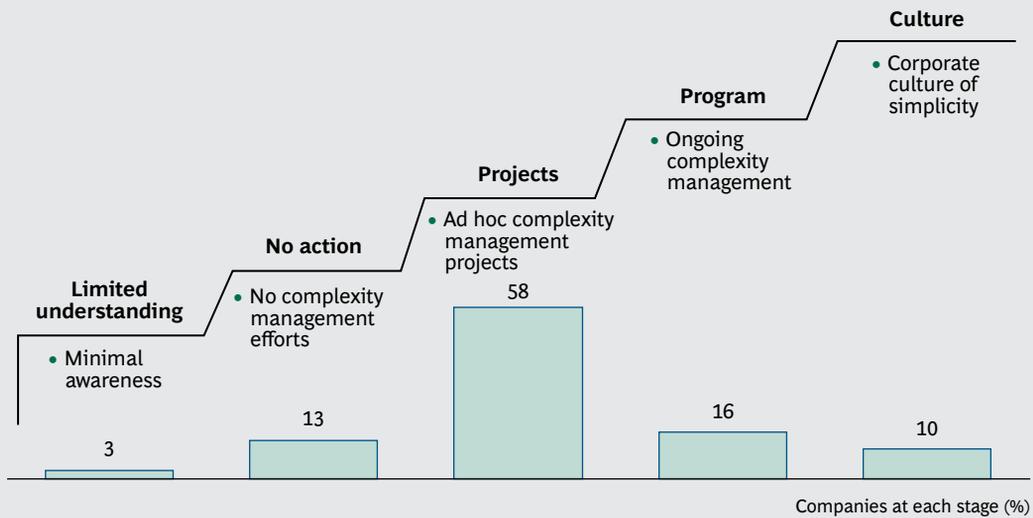
Most companies are still at the starting point of complexity management, typically undertaking ad hoc projects focused on SKU rationalization. But one of the problems with narrowly focusing on rationalizing or cutting the tail of a SKU portfolio is that SKUs account for only a small proportion of complexity costs. To make real headway, you need to look “under the hood” of all SKUs.

EXHIBIT 8 | Product Proliferation Has Failed to Trigger Growth



Sources: IRI’s New Product Pacesetters reports, 2004–2010; Euromonitor.
Note: CPG includes food, beer, wine, spirits, coffee, tea, carbonated soft drinks, sports drinks, energy drinks, juice, milk, water, baby care, air fresheners, candles, home care, pet care, health care, beauty, and personal hygiene. New-product introductions exclude launches at Wal-Mart.

EXHIBIT 9 | Most Companies Are at the Early Stages of Complexity Management



Source: Interviews with CPG company executives.

“You need to get under the skin to the ingredients and packaging to get real savings,” said a senior executive of a personal-care-product company.

Experience has also shown that complexity has a tendency to creep back into the portfolio. “We cut our SKUs by 60 percent, but churn hasn’t changed. So we will have proliferation again,” admitted an executive of a household products company. Another interviewee said, “We tend to be better at pruning than managing and preventing complexity.”

The Challenge of Internal and External Alignment

The barriers to abandoning a narrow focus on SKUs in favor of a more integrated, companywide approach to complexity management vary for manufacturers and retailers and by company size. One of the major obstacles that most businesses mentioned was the lack of internal alignment. Specifically, businesses have difficulty in establishing a shared, companywide focus on complexity management, spanning all the relevant functions, from R&D to sales and marketing. In our conference session, nearly two-thirds of manufacturers and half of retailers cited this problem as a major issue. (See Exhibit 10.)

Part of the difficulty is resolving ostensibly competing objectives: the supply chain’s need to reduce complexity and sales and marketing’s need to meet customers’ requirements. “Sales is worried that some customers may be offended if we discontinue products,” said one executive. Another commented, “Marketing says we need all the SKUs to meet consumer demand.” Other obstacles to internal alignment include lack of cross-functional cooperation, such as forums in which to address companywide complexity issues. Difficulties in quantifying the costs of complexity can also prevent discussions from even starting.

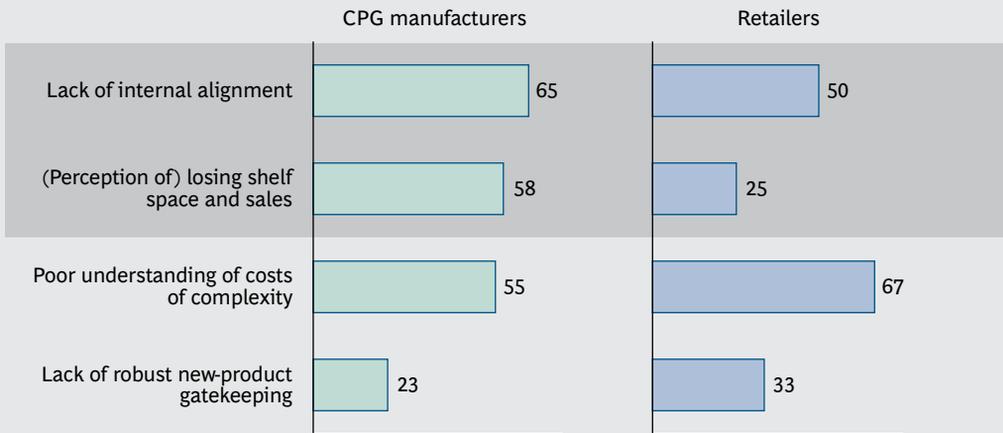
External alignment with trading partners is also a major issue, especially for manufacturers. Nearly 60 percent of the manufacturers studied expressed fears that complexity reduction would result in less shelf space for their products, compared with just 25 percent of retailers concerned about losing sales through greater simplicity. “Sales really wants to hold on to their shelf space,” claimed a supply chain executive.

Key Enablers for Managing Complexity to Unlock Value

Despite the hurdles, some companies are making significant progress in managing complexity to add value. These companies are focusing on four key enablers.

EXHIBIT 10 | The Greatest Barriers Are Lack of Internal Alignment and Fear of Losing Shelf Space and Sales

What are the biggest barriers that limit your ability to manage complexity?
Pick all that apply. (% of responses)



Source: Polling by BCG at the GMA-FMI Trading Partner Alliance 2013 Supply Chain Conference.

Treat complexity management as a holistic, cross-functional exercise, with top-level support. The companywide nature of complexity requires a systematic, cross-functional approach, from manufacturing and procurement through sales and marketing. Chocolate manufacturer Ferrero U.S.A. has achieved this by turning simplicity into a companywide value, enabling the business to keep the number of its SKUs steady at approximately 140 units over the 2007–2012 period. As a relatively small organization in the U.S., the company has been able to ensure a strong, close dialogue between the supply chain and sales and marketing. “It’s important to have buy-in from sales and marketing that whatever we do is right for the business,” said one executive. Above all, there is a shared vision of simplicity as a key competitive strength throughout the company. “If there’s a request for an addition in one area, we typically remove an item in another area.”

Quantify the costs of complexity across the value chain. To find the optimum balance between the value of variety and the costs of complexity, companies need to understand the full economics on both the demand and the supply side, underlining the importance of a cross-functional approach. On the supply side, what are the drivers of complexity and their relative costs for each SKU?

One manufacturer has reaped the benefits of an in-depth understanding of the value and costs of complexity. Having developed the ability to analyze value and costs—related, for example, to a retailer’s request for a customized pallet—it can determine the best way to respond. In this example, the company would go ahead with the initiative only if the customer is willing to absorb the cost. “If they are willing to pay for it, then it’s worth it,” said a representative of this company. However, the company adds a note of caution: “It sounds simple but it’s not—you need to have the infrastructure in place for activity-based costing.”

Another advantage of pinpointing the drivers and costs of complexity is that doing so enables businesses to identify ways to reduce the costs of “good” complexity. Companies take different routes to cut these costs. For instance, one manufacturer uses a standardized, modular platform for its point-of-sale (POS) displays for multiple products and differentiates each with a different banner. “It saves times and removes complexity,” generating “six-digit savings” for the company.

Complexity scorecards should be used to assess the relative value and costs of each SKU, and “tollgates” should be established to determine whether new SKUs, subplatforms, and product-line updates deliver profitable variety.

Focus on market-driven profit maximization, not just cost reductions. A narrow focus on cost-driven SKU rationalization not only overlooks broader gains, including opportunities to increase sales, but also risks cutting profitable parts of the tail. Instead, complexity should be managed through the lens of consumers' needs, with an eye firmly trained on variety that adds value and sales growth as well as unnecessary complexity that raises costs.

Complexity should be managed through the lens of consumers' needs.

One household- and lifestyle-product manufacturer has mastered this art with impressive results. For example, the company significantly reduced packaging variety, having discovered that the previous variety did not add much value to consumers. "Product harmonization helped grow the business and got a ton of the complexity costs out," explained a senior supply-chain executive.

Institutionalize complexity management as a systematic, ongoing activity. Complexity management should be not a one-off exercise but an integral part of a company's strategy and day-to-day operations. Unilever institutionalized complexity management by initially creating a high-level, dedicated task force to assess complexity across the business and establish the systems to tackle it. It was important that the analysis started at the shelf, taking into account consumer insights. From there, the findings were worked into all processes, proceeding backwards through the organization. Once the program was proved, it was embedded in each of the categories, with brand managers held accountable, through annual reviews, for managing complexity.

Unilever has further embedded complexity management into its business by making the supply chain and brand teams jointly responsible for the P&L. "It's easy to get supply chain at the table; every brand person wants to put his thumbprint on a product, so you have to figure out what's in it for marketing to make it work," said one of the company's supply-chain managers. As with many businesses that successfully manage complexity, top-level support has been critical. "Endorsement from the president of Unilever is our largest success factor."

Key Questions for Supply Chain Executives

To effectively address the challenges of managing complexity, supply chain executives need to answer the following questions:

- What level of complexity do you strategically want to support?
- Who owns complexity management within your organization?
- Which product varieties and design elements drive consumer choice?
- What are the underlying drivers of complexity, beyond SKUs, and are costs adequately reflected in product pricing?
- Are products phased out as new products are introduced?

OPTIMIZING COLLABORATION'S STRATEGIC POTENTIAL

COLLABORATION WITH TRADING PARTNERS provides another rich source of untapped value, which BCG estimates to be worth between \$7 billion and \$21 billion of incremental profit for the industry as whole, with both manufacturers and retailers winning relatively equally.

Nearly all participating companies have embarked on the collaboration journey, but only a few have moved into the advanced stages of partnership and none has achieved full end-to-end integration. Fostering greater trust, with the support of senior leadership, is the key to success.

Several manufacturers are already reaping significant benefits from collaboration.

Collaboration is not a new concept in the CPG industry. Since the 1980s, manufacturers and retailers have been working together, initially with vendor-managed inventory (VMI) and later through initiatives such as collaborative planning, forecasting, and replenishment. However, recent pressures shared by manufacturers and retailers—including the economic downturn and the looming transportation-infrastructure crisis in the U.S.—

have made it increasingly important for manufacturers and retailers to work together to find mutually beneficial solutions. Technological advances have accelerated this potential for partnership.

Opportunities to Cut Inefficiencies and Fuel Profitable Growth

The need for greater collaboration to reduce supply chain inefficiencies is clear. Currently, out-of-stocks are still at 4 to 8 percent across the industry. Furthermore, product waste erodes sales by 2 percent, equivalent to nearly a \$17 billion annual loss for the industry. In addition, approximately 5 to 10 percent of all private freight miles are “running empty.”

Collaboration is not simply about cutting costs; it can also boost sales and margins for both parties. Overall, BCG estimates that greater collaboration could improve manufacturers and retailers' sales by 0.5 to 1.5 percent and margins by a similar amount.

Several manufacturers are already reaping substantial benefits from closer collaboration. For example, Kraft Foods Group and Safeway boosted sales of one product by 160 percent by eliminating out-of-stocks. A special collaboration team identified the location of one specific SKU on mixed pallets as a barrier to restocking the item from the back room. With this knowledge, the team undertook a simple,

smart pallet redesign that resolved the problem. In another example, PepsiCo teamed up with retailers to use store-level distribution-and-inventory analysis, as well as POS data sharing, to ensure that one of its products was continually replenished, increasing service levels by 3 percent, sales by as much as 1.5 percent, and forecasting accuracy by 20 percent.

Basic Collaboration—but with Pockets of Innovation

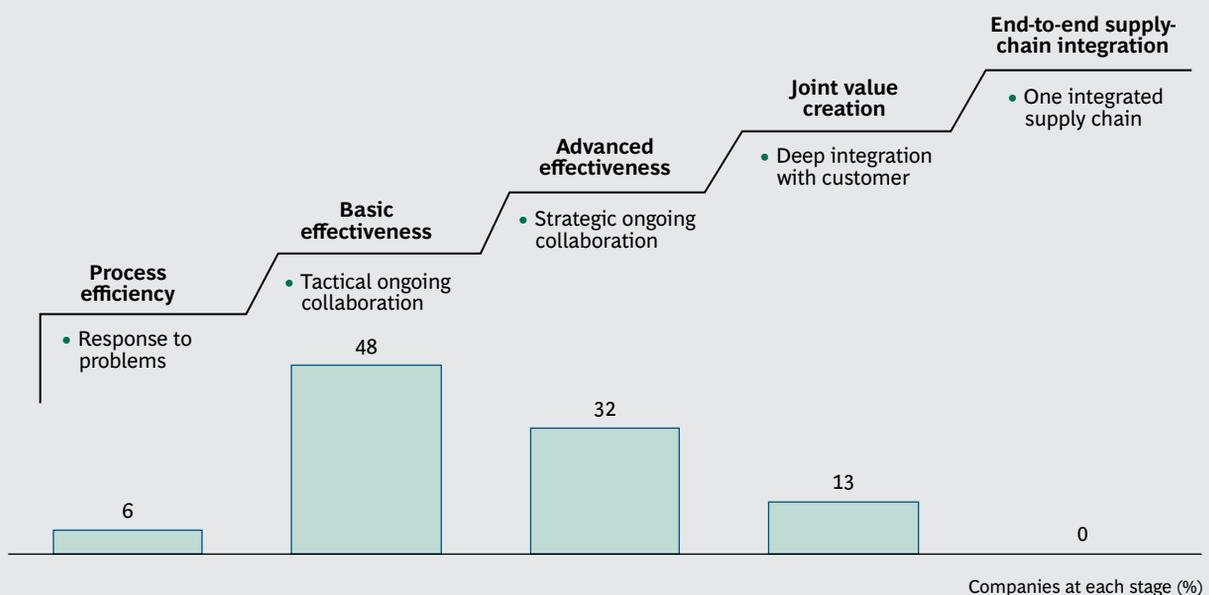
It is encouraging that nearly all manufacturers recognize the strategic importance of collaboration. Of the executives we interviewed, 95 percent reported that collaboration is a strategic focus for their business, and nearly all of them claimed to have initiated related projects or established dedicated collaboration teams. In addition, two-thirds of companies indicated that their level of collaboration had increased since 2010. “We’ve had more collaboration in the past 18 months than the last ten years—it didn’t used to be such a deep focus,” said one executive. It is understandable that larger manufacturers (those with more than \$10 billion in revenues) are more than twice as likely as their smaller peers to have increased their collaboration because of their greater resources and strategic significance to retailers.

Despite their strategic intent, most manufacturers, even the relatively large, well-resourced manufacturers, remain locked in the basic stages of collaboration. Most executives we interviewed reported that their companies are engaged in either problem solving or basic process-efficiency collaboration, with only a handful of businesses climbing higher up the collaboration chain. (See Exhibit 11.) None has achieved full end-to-end supply-chain integration. Moreover, the more advanced initiatives are usually either small in scale or stuck in pilot mode. “All of our collaboration efforts are in pilot stage,” said one interviewee.

The collaborative projects most mentioned by the interviewees include sharing retailers’ POS data and optimizing order quantities, followed by cooperation among trading partners’ senior supply-chain executives (“top to tops”) and transport optimization. Some of these initiatives are reaching critical mass, measured by the number of companies pursuing particular collaborative activities. (See Exhibit 12.)

Even though many initiatives are in the pilot stage, companies are increasingly introducing advanced solutions, many on the back of technology. For example, one manufacturer

EXHIBIT 11 | Most Manufacturers Are at the Start of the Collaboration Journey

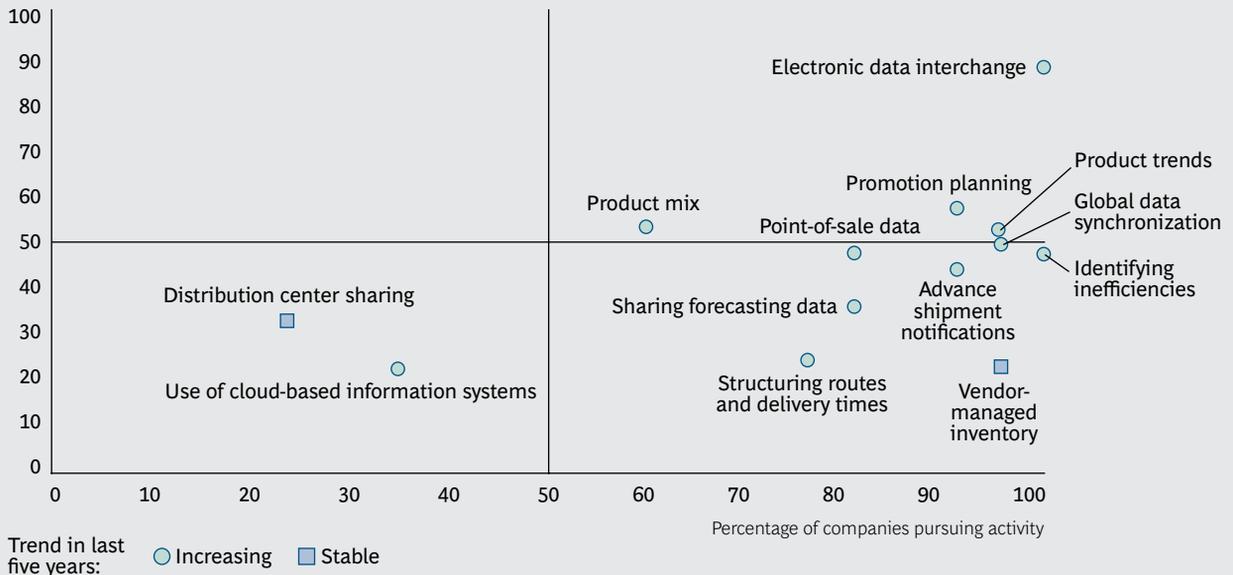


Source: Interviews with CPG company executives.

Note: Percentages do not total 100 because of rounding.

EXHIBIT 12 | Many Collaboration Activities Are Reaching Critical Mass

Average company-reported sales covered by activity¹ (%)



Source: GMA Supply-Chain Benchmarking Survey 2012.

¹Percentage calculated for companies that are engaged in each collaboration activity. Overall percentages across the full sample (shown in Table 6 in the appendix) include companies that entered “0” for any given activity.

provides its customers with an interactive tablet tool that enables them to visualize route options using a graphical “drag, drop, move lanes” representation of the choices. Another manufacturer is leveraging its customer’s POS data to identify “pockets of loss,” and still another is piloting shared supplier-retailer forecasts. Other sophisticated techniques being applied range from value stream mapping to “Gemba walks,” in which supply chain managers from both sides follow a product’s life cycle from production through its sale in the store.

Major Obstacles to Progress: Capabilities, Technology, Trust, and Commitment

One of the biggest obstacles to scaling up pilots and ensuring deeper, more widespread collaboration is lack of trust between trading partners. (See Exhibit 13.) “Lack of retailer-supplier trust is still an industry issue. It hasn’t evolved too far,” said one interviewee.

One symptom of this problem—and another major barrier to progress—is a reluctance of trading partners to share data. “There needs to be an industry shift around data transpar-

ency—the industry holds things close to the vest,” said an executive. Although data and technology issues rank fourth in manufacturers’ list of barriers to collaboration (cited by one-third of the manufacturers we polled at the supply chain conference), they are the top obstacle for retailers by a substantial margin.

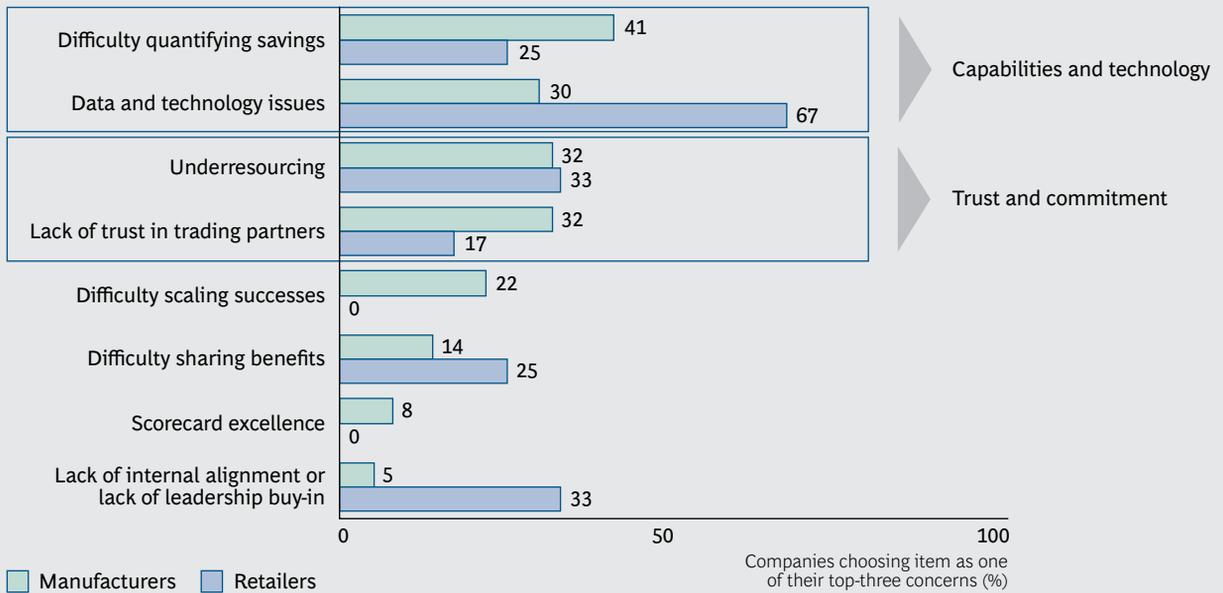
There are also fundamental technical issues between the two parties. “It’s hard to standardize and gain alignment to create an interface between disparate systems,” said one interviewee. Another commented, “One retail chain wants to do paperless trading with us, but they can’t get their EDI [electronic data interchange] systems to work—it’s been years.”

Echoing a problem experienced by companies as they grapple with complexity management, companies also struggle to quantify the benefits of collaboration with trading partners. “It’s difficult to calculate the return on investment for each collaboration engagement, which makes it hard to justify the resources and investment required,” said one interviewee.

One consequence of failing to make a measurable business case for collaboration is that the necessary resources and required commit-

EXHIBIT 13 | Capabilities, Technology, Trust, and Commitment Are the Biggest Challenges in Collaboration

Polling data: key collaboration barriers



ment are not always forthcoming. This can be the case for both manufacturers and retailers. “Collaboration requires significant resources—unless you have a ‘manager of collaboration,’ it ends up on the bottom of the priority list,” noted one interviewee. Another said, “Suppliers have more focused resources to go after issues, but customer resources for collaboration are limited.”

Key Enablers for Deepening Collaboration

Although nearly all manufacturers have started down the collaboration road, their ability to progress further is often restricted by the lack of a systematic, focused approach, forcing them to act in an ad hoc, opportunistic manner. Interviews with companies that have successfully collaborated at a relatively sophisticated level revealed six key building blocks for mutually beneficial partnerships, always keeping customer needs in mind. (See Exhibit 14.)

Prepare your organization. Collaboration between trading partners often requires sustained investment over a few years to succeed. Before a company starts on that

journey, it is important to have an agreement within that company’s leadership regarding where to go and what will be required to get there.

- *Identify your current and targeted collaboration position.* CPG manufacturers’ size, business strategy, and management structure influence the style and level of relationships with customers, as well as the resources, processes, and tools required. Consider what you can realistically accomplish in your time frame, given your objectives, senior-level commitment, and resources.
- *Secure senior leadership buy-in.* Executive representatives of retailers who we interviewed said that the top enabler of collaboration is gaining buy-in from senior leaders; nearly two-thirds of the retailers mentioned this factor as the foremost enabler. It was also the second most commonly cited enabler for manufacturers, after mutual benefit sharing. This is understandable. The long-term, strategic nature of collaboration requires senior sponsorship from both sides in order to ensure strategic

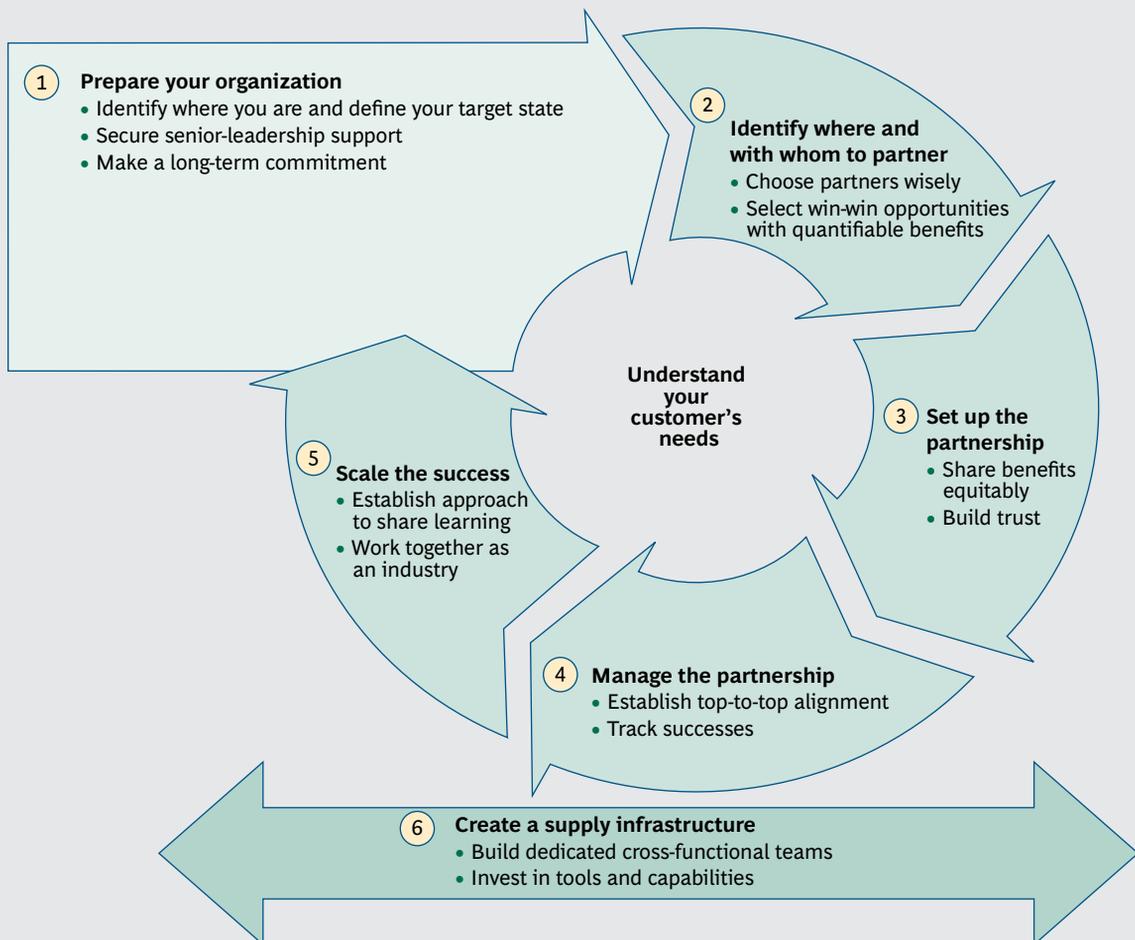
alignment, define the boundaries of the partnership, provide an escalation route for quickly resolving differences, and maintaining momentum through the inevitable hard times. Top-to-top alignment is a characteristic of all the manufacturers that are successfully collaborating. Indeed, 52 percent of manufacturers and 45 percent of retailers have established top-to-top alignment.

- *Make a long-term commitment.* It takes time to build the trust required for successful collaboration. Be sure to establish a realistic time horizon for your business, taking into account your long-term strategic objectives, and work to ensure that the necessary resources for investing in the relationship will be available over that period.

Identify where and with whom to partner. To realize the full benefits of collaboration and avoid stretching resources too thin, CPG manufacturers need to prioritize the best projects among the plethora of opportunities that present themselves.

- *Select partners wisely.* Building trust is an intensive, delicate, and long-term exercise, so it is important to choose targets for collaboration carefully and to ensure fully aligned internal support to avoid any threats to the relationship. Different companies have different selection criteria, in accordance with their strategic priorities. One major manufacturer concentrates on the retailers that account for 50 percent of its volume, enabling it to allocate sufficient resources and time to build the relationships.

EXHIBIT 14 | A Successful Collaboration with a Trading Partner Can Be Constructed Using Key Building Blocks



Sources: Interviews with CPG company executives; BCG experience.

- *Prioritize win-win opportunities.* Understanding prospective partners' needs and priorities is an important first step. "Instead of going in and selling VMI or order quantities, go in and listen first," said a PepsiCo executive. To win partners' confidence, it is also often best to start with small initiatives, such as inventory optimization, that do not necessarily offer big, long-term potential but do deliver quick wins and open the door to larger initiatives. "Everyone is trying to manage inventory, so if you go in with a quick win that's of interest to them, then that can work well," said one executive. One CPG supply-chain manager stated, "We have a bias to saying 'yes,' but we don't always do it. It needs to be win-win. Sometimes we will walk away from an initiative if it doesn't make sense."

Set up the partnership. When entering into a new collaborative relationship, it is important to agree on a few of its parameters, such as how benefits will be shared and what mechanisms will be used to track the impact over time. During these early stages of the relationship, it is especially important to build the trust that is the foundation of successful collaboration.

- *Agree on mutual benefits.* Identifying mutual benefits is considered the top enabler of collaboration among CPG manufacturers (cited by 53 percent of them) and the second-most-important driver for retailers (45 percent), after senior-leadership commitment.

A supply chain executive stressed the importance of transparency in explaining why some projects are chosen over others: "It's important to be honest about why it won't create mutual benefit—you can lose trust if you aren't direct." Kimberly-Clark is systematic in its approach to benefit sharing. With a large customer, for instance, the company agreed to a joint business plan—including the supply chain—that set objectives for total business growth and margin efficiencies, as well as a three-year cost-reduction target for the supply chain, and equitable sharing of the savings.

- *Build and strengthen trust.* A transparent and open relationship is the bedrock of trust. For example, Procter & Gamble not only shares its data with its target retailers but also develops joint business plans with its customers. "A joint business plan that encompasses supply chain is very important," explained P&G's supply-chain director. "Showing that supply chain drives sales and saves costs is incredibly important to successful collaboration."

Senior support must be sustained beyond the initial collaboration agreement.

Manage the partnership. Without continued attention, even partnerships that start successfully risk falling by the wayside.

- *Sustain top-to-top alignment.* It is essential that senior support and alignment are sustained beyond the initial collaboration agreement. Several companies do this by holding quarterly top-to-top meetings with their key customers. Kraft has taken senior engagement to a bigger, industrywide scale by holding a supply chain summit with senior executives from multiple retailers to "discuss how to collaborate differently in the new world." This approach underscores the company's belief that the way to scale up collaboration is to advance from a one-to-one form of collaboration with individual retailers to a many-to-many quest for joint value creation with the industry as a whole.
- *Track successes over time.* Although collaboration has to be based on the softer, less quantifiable issue of trust to sustain the relationship, it also has to be approached systematically to deliver tangible results. Tracking and celebrating successes helps maintain the momentum for collaboration both internally and externally, when talking to trade partners. It is also the basis for informed investment decisions as collaboration is scaled up to include more customers and projects.

Scale the success. One of the biggest challenges for CPG manufacturers has been to institutionalize successes achieved with pilot programs by scaling those programs across customers.

- *Share best practices across the organization.* To move from pilot projects to broader collaborations, it is important that key lessons are shared within the organization. This may require setting up more-structured processes that encompass identifying, quantifying, and prioritizing opportunities, as well as criteria for collaboration.
- *Work together as an industry.* True, CPG manufacturers and retailers can push ahead with significant collaboration initiatives individually. But the full value of collaboration will be realized only if the industry works together. Broader alignment is needed on, for example, performance metrics. As one of our interviewees said, “We may have a different notion of what constitutes ‘on time’ than our customers do, which leads to debates about scorecard performance. What’s worse, each customer looks at it slightly differently.”

Differences in policies—for example, regarding product returns and products that can’t be sold—also remain constant topics of debate between CPG manufacturers and retailers and can derail collaborative relationships. Finally, common standards for IT systems and data would open up a new set of collaborative activities and take the industry to the next level.

Create a supply infrastructure. The companies we talked to that have been most successful working with their trading partners systematically invest in resources, tools, and capabilities to advance collaboration.

- *Create dedicated, cross-functional teams.* P&G employs a cross-functional approach, embedding a variety of team members in retailers’ field operations, not just the supply chain team, so that the company is aligned with the retailers’ business

functions that help deliver value, including operations and merchandising. “This makes collaboration more complicated but more lucrative for us,” said a P&G executive. “When we see genuine change, it’s beyond supply.” Another CPG manufacturer has a dedicated collaboration team, including members who are located in the field with customers to provide a “supply chain toolbox” of 20 offerings.

- *Invest in tools and capabilities.* Invest in developing sophisticated tools—or use third-party equivalents—for integrating and analyzing retailers’ POS and forecasting data, as well as for optimizing order quantities and transport networks. For example, many companies we talked to cooperate with third-party software providers to get better insights from retailers’ POS data that help them identify out-of-stocks and other supply-chain issues.

Key Questions for Supply Chain Executives

To elevate collaboration to the next level, companies should answer the following questions:

- Is your leadership team prepared to invest time and resources into collaboration initiatives?
- How far can you realistically go in your preferred time frame, given your objectives, senior-level commitment, and resources?
- Are there clear priorities for collaboration? Do you have criteria that define which relationships and projects to pursue?
- Do you have a system for sharing lessons from customer teams across the organization?
- How can your company contribute to industrywide efforts to accelerate collaboration?

MOVING FORWARD

THE GMA SUPPLY-CHAIN BENCHMARKING 2012 report shows that the industry continues to make great progress in a number of areas. However, the report also highlights remaining significant opportunities for CPG manufacturers to release additional value. In many cases, this value will be realized by the laggards closing the gaps with the leaders in terms of costs, working capital, and service levels. But there is also substantial potential for all manufacturers to unlock value by thinking differently and approaching the supply chain as a source of competitive advantage.

For many companies, the benchmarking results will highlight opportunities to improve cost structure, inventory levels, and service provided to customers. Especially with regards to service levels, this may mean adapting to new standards such as the 99 percent case fill rate. This report encourages setting ambitious targets as it challenges traditionally held tradeoffs:

- There is no consistent observable relationship between cost and service levels. The best companies excel at controlling both by segmenting their supply chains by customers and products, managing complexity to achieve consumer value efficiently, and collaborating with trading partners.

- There is no direct relationship between scale and costs for outbound logistics. This counterintuitive effect could be driven by a few factors, such as organizational complexity and growth across categories and locations. Larger companies should think about how they can best benefit from scale given these constraints, and smaller companies will be glad to know scale is not a prerequisite for efficiency.
- Higher inventory levels do not automatically drive higher service levels. Rather, companies should seek to establish inventory levels that take into account local customer needs and use data to deliberately provide the right inventory in the right place at the right time.

Even CPG manufacturers that perform well in the benchmarking should ask themselves how they can unlock additional value in their supply chain. Managing complexity in a more strategic way that focuses strictly on consumer value while reducing costs and pushing the boundaries on trading-partner collaboration are two approaches with significant untapped potential.

APPENDIX

TABLE 1 | Participating Companies

Budweiser Busch Distributing	Kraft Foods Group
Bumble Bee Foods	Markstein Beverage Co.
Bush Brothers & Company	McCormick & Company
Central Beverage Company	MOM Brands
Church & Dwight Co.	Monarch Beverage
Colgate-Palmolive Company	Mondelēz International
ConAgra Foods	Nestlé Purina PetCare Company
Dean Foods	Nestlé USA
Diamond Foods	PepsiCo
Elyxir Distributing	Procter & Gamble
Energizer Holdings	Reily Foods Company
Ferrero U.S.A.	Rich Products
Flowers Foods	S.C. Johnson & Son
Frito-Lay North America	Snyder's-Lance
General Mills	Suncore Products
Gretz Beer Company	Sunny Delight Beverages Co.
Grey Eagle Distributors	Sun Products
Hensley Beverage Company	The Clorox Company
Hillshire Brands	The Coca-Cola Company
H.J. Heinz Company	The Hershey Company
Hormel Foods	The J.M. Smucker Company
J.D. Irving	Unilever
J.J. Taylor Companies	Welch's
Johnson & Johnson	WhiteWave Foods Company
Kimberly-Clark	

Source: GMA Supply-Chain Benchmarking Survey 2012.

Note: Two companies preferred to remain anonymous.

TABLE 2 | Supply Chain Profile

			All companies			
			First quartile	Median	Third quartile	Average
Metric		Unit				
Outbound-shipping method	Direct from plant	Percentage of shipments	24.0	5.0	0.0	20.4
	Plant-based warehouse	Percentage of shipments	39.3	17.0	0.1	26.2
Outbound-shipping provider	Direct common carriers	Percentage of shipments	76.7	60.0	52.3	59.9
	Third-party logistics services providers	Percentage of shipments	26.0	6.0	0.0	24.7
	Retailer pickup programs	Percentage of shipments	35.2	23.0	20.0	25.8
Freight costs and utilization	Full truckload freight cost	Dollars per mile	1.6	1.9	2.1	1.9
	Less than truckload	Percentage of shipments	3.0	11.0	32.8	20.7

Source: GMA Supply-Chain Benchmarking Survey 2012.

TABLE 3 | Supply Chain Performance

			All companies			
			First quartile	Median	Third quartile	Average
Metric		Unit				
Service performance	Case fill rate	Percentage	99.1	98.9	97.9	98.3
	On-time delivery measured by requested arrival date (RAD)	Percentage of shipments	94.9	92.1	87.3	90.5
	On-time case fill factor	Percentage	94.1	90.6	85.5	89.4
	On-time delivery measured by scheduled arrival time (SAT)	Percentage of shipments	96.9	95.0	89.7	93.0
	Customer returns	Percentage of sales	0.0	0.1	0.2	0.3
	Order line item fill rate	Percentage	97.9	96.1	93.2	94.0
	Perfect order attainment	Percentage	90.5	84.5	80.0	84.3
Warehouse performance	Cases picked per hour	Cases per employee-hour	329.8	283.7	230.3	326.9
	Pallets picked per hour	Pallets per employee-hour	25.8	17.0	13.0	24.3
	Average capacity utilization	Percentage	86.8	78.7	72.3	79.7
Inventory, working capital, and forecasting performance	Finished-goods inventory on hand	Days	28.0	34.5	46.8	37.8
	Sales outstanding	Days	16.7	22.2	25.0	22.6
	Payables outstanding	Days	33.3	30.0	17.7	28.1
	Cash conversion cycle	Days	15.2	25.0	38.0	27.0
	Finished-goods turns (calculated)	Turns per year	12.7	10.4	7.6	14.2
	Mean average percentage error (MAPE): monthly, nationally	Percentage	18.4	22.4	27.6	25.1

Source: GMA Supply-Chain Benchmarking Survey 2012.

TABLE 4 | Supply Chain Costs

Metric	Unit	All companies				
		First quartile	Median	Third quartile	Average	
Costs	Logistics	Percentage of sales	4.00	5.93	7.82	6.15
	Replenishment freight	Percentage of sales	1.00	1.87	2.30	1.81
	Warehouse	Percentage of sales	1.36	1.74	2.33	1.83
	Customer freight	Percentage of sales	1.39	2.26	2.91	2.58
	Special pack	Percentage of sales	0.04	0.08	0.32	0.28
	Overhead	Percentage of sales	0.35	0.55	0.91	0.75
Cost per case	Logistics	Dollars per case	1.15	1.50	2.06	1.64
	Replenishment freight	Dollars per case	0.29	0.40	0.61	0.42
	Warehouse operations	Dollars per case	0.29	0.42	0.57	0.41
	Customer freight	Dollars per case	0.39	0.50	0.75	0.55
	Special pack	Dollars per case	0.00	0.02	0.06	0.11
	Overhead	Dollars per case	0.09	0.13	0.22	0.16

Source: GMA Supply-Chain Benchmarking Survey 2012.

TABLE 5 | Complexity Management

Metric	Unit	All companies				
		First quartile	Median	Third quartile	Average	
Sales ratios and case sizes	Sales per SKU	Thousands of dollars	2,052	1,119	432	1,532
Complexity metrics	SKUs that are less than one year old	Percentage of SKUs	5.4	14.5	24.3	16.4
	Spoiled items	Percentage of sales	0.0	0.2	0.7	0.4
	Value markdowns due to code date	Percentage of sales	0.0	0.2	0.6	0.4

Source: GMA Supply-Chain Benchmarking Survey 2012.

TABLE 6 | Collaboration

Metric	Unit	All companies			
		First quartile	Median	Third quartile	Average
Share forecasting data	Percentage of sales	46.5	33.5	10.0	29.9
Use vendor-managed-inventory programs	Percentage of sales	32.5	20.0	10.0	22.1
Use electronic data interchange technology	Percentage of sales	96.5	92.0	81.0	87.5
Share daily retailer scan data	Percentage of sales	57.8	40.0	24.3	41.0
Use global data synchronization (GDSN)	Percentage of sales	60.0	50.0	40.0	47.8
Use cloud-based information systems with partners	Percentage of sales	6.0	0.0	0.0	9.1
Advance shipment notifications	Percentage of sales	67.0	43.1	10.0	41.0
Collaborate to identify supply chain efficiencies	Percentage of sales	67.0	50.0	30.0	47.2
Collaborate on structuring transport routes and delivery times	Percentage of sales	25.0	10.0	2.3	18.7
Share distribution centers	Percentage of sales	3.5	0.0	0.0	10.5
Jointly manage product mix	Percentage of sales	60.0	35.0	0.0	34.8
Jointly plan promotional activities	Percentage of sales	77.5	55.0	30.0	49.7
Discuss product trends and forecasts	Percentage of sales	68.8	60.0	31.5	50.2

Source: GMA Supply-Chain Benchmarking Survey 2012.

NOTE TO THE READER

About the Authors

Aaron Brown is a partner and managing director in the Chicago office of The Boston Consulting Group. **Jeff Gell** is a senior partner and managing director in the firm's Chicago office and the global head of consumer products. **Elfrun von Koeller** is a project leader in BCG's New York office. **Jeff Wray** is a partner and managing director in the firm's Philadelphia office.

Acknowledgments

The research described in this report was sponsored by the GMA's Supply Chain Committee and Direct Store Delivery Committee and was performed by BCG in partnership with the GMA. The authors would like to thank the members of those committees. In addition, the authors would like to thank Keith Conlon for assisting with the writing of this report and to thank their BCG colleagues Katherine Andrews, Gary Callahan, Catherine Cuddihee, Angela DiBattista, and Sara Strassenreiter for contributing to its editing, design, and production.

For Further Contact

For further information about the report or to learn more about BCG's capabilities in consumer products and operations, you may contact one of the authors or the GMA.

Aaron Brown

Partner and Managing Director
BCG Chicago
+1 312 993 3300
brown.aaron@bcg.com

Jeff Gell

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

Jeanne Iglesias

Senior Director, Industry Affairs & Collaboration
Grocery Manufacturers Association
+1 202 295 3949
JIglesias@gmaonline.org

Elfrun von Koeller

Project Leader
BCG New York
+1 646 448 7600
koeller.elfrun.von@bcg.com

Jeff Wray

Partner and Managing Director
BCG Philadelphia
+1 267 773 5700
wray.jeff@bcg.com

© The Boston Consulting Group, Inc. 2013. All rights reserved.

For information or permission to reprint, please contact BCG at:

E-mail: bcg-info@bcg.com

Fax: +1 617 850 3901, attention BCG/Permissions

Mail: BCG/Permissions

The Boston Consulting Group, Inc.

One Beacon Street

Boston, MA 02108

USA

To find the latest BCG content and register to receive e-alerts on this topic or others, please visit bcgperspectives.com.

Follow [bcg.perspectives](https://www.facebook.com/bcg.perspectives) on Facebook and Twitter.

BCG

THE BOSTON CONSULTING GROUP



The Association of Food, Beverage
and Consumer Products Companies