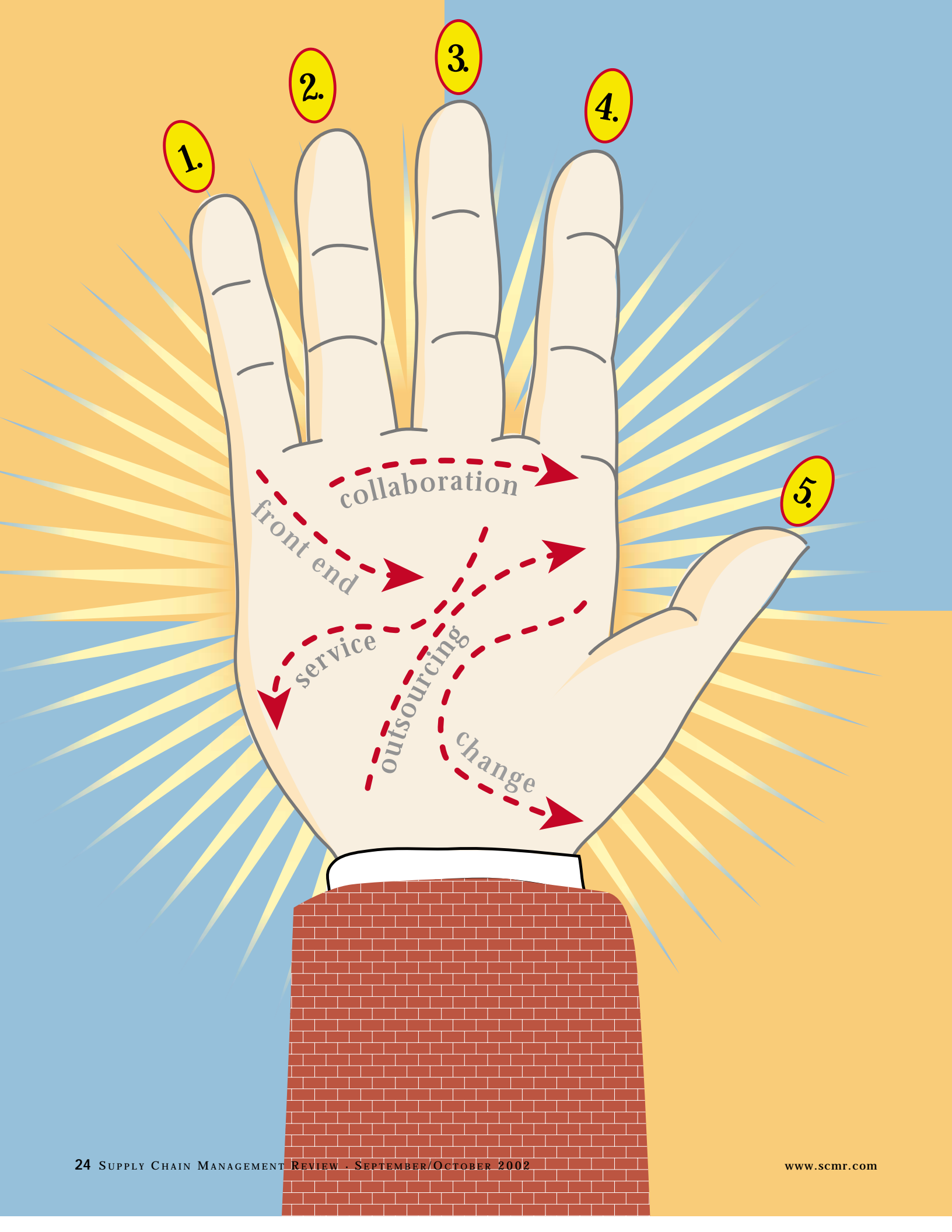


**In virtually every industry, supply chain innovators** have changed the rules of the game—forcing competitors to adapt or suffer.

**Companies that work efficiently with multiple partners will get most of the action**, while those that are difficult to work with will largely be ignored.

**Connecting product sales to the service network** will become a prime value driver for many companies.



1.

2.

3.

4.

5.

collaboration  
front end  
service  
outsourcing  
change

## 5

# PREDICTIONS

## That Will Make You

# RETHINK

## Your Supply Chain

Supply chain initiatives over the last decade, while frustrating at times, have proved enormously beneficial to businesses. The most successful innovators viewed the supply chain as a strategic tool for changing the rules of the game. As a result, supply chain management and shareholder value are closely linked, and supply chain management will continue to have a major role in corporate success. The authors offer five predictions on the future role of supply chain management—each potentially disruptive but also capable of helping businesses create value and achieve strategic advantage in the marketplace.

By David L. Anderson and Allen J. Delattre

In the 1990s, business leaders were inundated with new supply chain initiatives—from just-in-time inventory management to collaborative product commerce. Most of those programs were well conceived, but their complexity and misalignment with corporate operating models often produced conflicts, delays, and suboptimal results. Other times, competing or overlapping agendas led to inflated budgets and project terminations, leaving executives exhausted and discouraged.

During the same decade, however, supply chain programs saved thousands of companies billions of dollars. Successful initiatives made it possible for companies to meet customer needs more quickly, less expensively, and through more channels. Better-quality, more-reliable goods also reached the market sooner. And for the first time, mass-customized products and services became a reality.

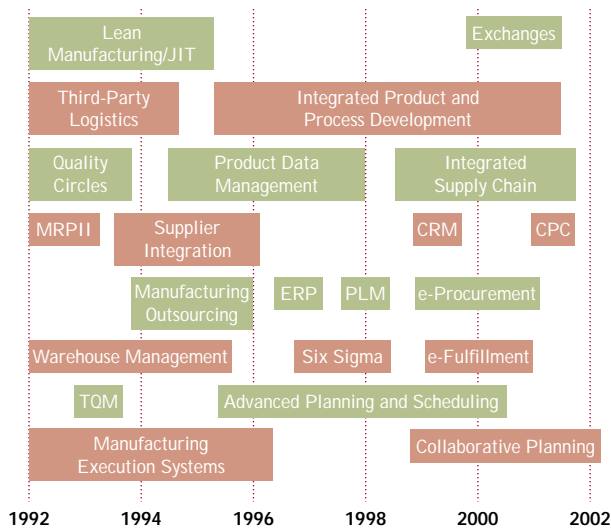
All in all, as Exhibit 1 shows, the last 10 years have produced some of the most rapid changes ever seen. In virtually every industry, supply chain innovators have changed the rules of the game, forcing competitors to adapt or suffer. For example, Dell, with its direct, configure-to-order model, revolutionized how personal computers are made, sold, and delivered. Wal-Mart, with its focus on lowest-cost availability via closer supplier relationships, forced the food and consumer products retailing industries to rethink how goods and services reach consumers. Coca-Cola and Pepsi-Cola spun off their supply chain operations into separate companies, thus

---

*David L. Anderson is a recently retired partner from Accenture, where he was instrumental in building the firm's supply chain management practice. Allen J. Delattre is a partner in the Accenture Supply Chain Management service line.*

**EXHIBIT 1**

**A Decade of Supply Chain Initiatives**



Source: Accenture 2002

increasing their focus on brand management and innovation, while empowering their service providers to optimize delivery efficiency. Southwest Airlines invented the “people supply chain” by applying proven supply chain concepts to passenger air travel. And semiconductor manufacturer TSMC repositioned itself as a supply chain partner to accommodate and surpass the logistics expectations of its customers.

Each of these innovators began by ignoring old-world supply chain rules. Some, for example, disregarded the belief that a manufacturer must reach its customers by navigating a complex and costly maze of wholesalers, distributors, and retailers. Others questioned the tenet that advocates forcing price reductions on suppliers as a long-term efficiency strategy. Perhaps most importantly, they have ignored the traditional view of the supply chain as a cost center that has very little to do with revenue generation. Companies that have leveraged their supply chains in unique ways have replaced these rules with a new set of supply chain paradigms:

- *Use the supply chain to “change the game.”* For example, a new service, “Connection to eBay,” creates a virtual supply chain that connects retailers and manufacturers to eBay’s community of consumers. This service provides a profitable channel for excess and out-of-season goods.

- *Partner with “unusual suspects.”* Rather than compete head-to-head in online retail, Toys “R”

Us and Amazon.com entered into a unique collaboration: Toys “R” Us focuses on merchandising and fulfillment, while Amazon.com supports Toysrus.com with Web site development, customer service, and order management.

- *Stop cutting costs and start “changing the cost structure.”* Following a complete transformation of its order-to-delivery processes, Nissan Motor Co.’s production facilities now collaborate online with North American dealerships. Customers can log on to the Nissan Web site, order the vehicle of their choice, and confirm a guaranteed delivery date.

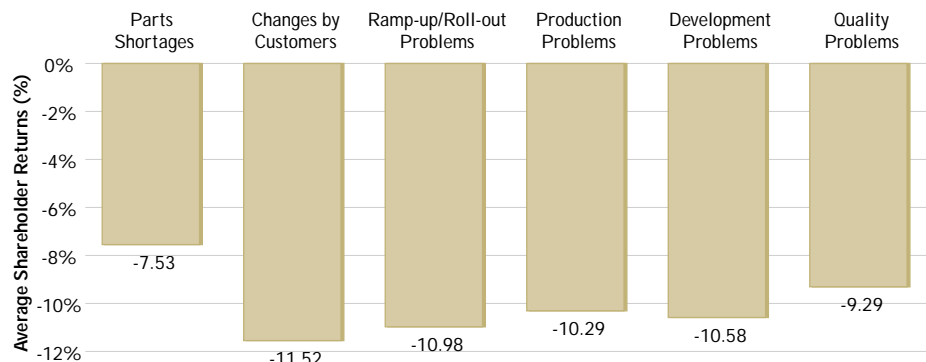
**“Good Enough” Isn’t Good Enough Anymore**

Inspired by the success of those innovators, many senior executives now have supply chain management on their radar screens. And virtually all have discarded the notion that their bottom lines go unscathed if supply chain performance simply is “good enough.” The reality, in fact, is that mediocre supply chain performance affects a vast range of business metrics, from order management, through manufacturing and logistics, and on to parts, service, and even new-product introduction. As shown in Exhibit 2, new studies reveal an explicit relationship between supply chain performance and shareholder value. That connection also is supported by the results of a 2001 Accenture survey of 150 *Fortune* 1000 executives, in which 80 percent of the respondents told Accenture that supply chain initiatives helped them cut costs, improve efficiencies, enhance customer service and revenues, and improve competitiveness.

However, participants in the Accenture survey also noted that serious improvements still are needed, particularly with respect to driving pilot programs through functions or divisions, rationalizing and leveraging improvements across multiple initiatives, and developing and/or acquiring the skills needed to reinvent their supply chains. Their principal challenge, in other words, is transforming the whole of their supply chains and, thus, transforming the company.

**EXHIBIT 2**

**Impact of Supply Chain Problems on Shareholder Value**



Source: University of Western Ontario and the Georgia Institute of Technology

## An Identity Crisis in Supply Chain Management?

According to respondents, a principal part of many supply chain transformations involves the outsourcing of non-core activities. Half the companies surveyed by Accenture are considering the development of third-party, supply chain-based partnerships. The move toward outsourcing is driven by the challenging economic environment, which necessitates corporate cost reductions, as well as the fact that outsourcing providers have drastically improved their offerings. Regardless of the motivation, developing a supply chain model that leverages outsourcing will require companies to rethink basic supply chain designs and how they relate to their companies' principal business objectives.

Without question, there has never been a better time to join with supply chain partners—either in outsourcing arrangements or as marketing partners—to create new synergies and efficiencies. But realizing and sharing those savings, often in a merger-like context, is an arduous, complex task that is regularly underestimated. It's not just a matter of shifting assets (warehouses, trucks, and inventories) up and down the supply chain. Synergies and cost savings don't happen unless all parties participate strategically.

Also complicating matters is the fact that most companies now have dual supply chain identities. As vendors, they must reach customers through an increasingly complex tangle of channels. And because operating requirements proliferate right along with those channels, the companies' one-size-fits-all approaches to delivery and service become less defensible over time. More and more down-channel partners, for example, require manufacturers to hold inventory for free and pro-

## Mediocre supply chain performance affects a vast range of business metrics, from order management, through manufacturing and logistics, and on to parts, service, and even new-product introduction.

vide just-in-time customer delivery capability.

But since most supply chain executives also are big buyers of materials and services, their organizations are customers as well. In this capacity, they routinely are besieged by suppliers and partners with offers to enhance pricing and service. However, it is never crystal clear which actions are justifiable or even necessary. And most such collaborations have hidden costs that neither party really understands or supports.

So what is the path forward? Find the solutions embedded in the challenges. For example, closer working relationships—and sharing of costs—with supply chain partners can reduce the investment required for new technology or fulfillment capabilities. To transform the value of the supply chain, consider the following five predictions about how the role of supply chain management will continue to fundamentally affect corporate strategy. Each is potentially disruptive but

also possesses the kind of innate value-creating capabilities that can help companies formulate winning strategies.



The front end of the supply chain will become as important as the back end in maximizing total economic yield.

Historically, supply chain management dealt largely with vendors, which meant that companies focused most intently on improving logistics (the back end of the supply chain). But because demand now manifests itself in many more ways—via the Web, through online marketplaces, or in conjunction with partnerships—smart companies will be increasing their emphasis on the supply chain's front end.

As a result, front-end supply chain management—understanding and responding to customer needs—will become an inextricable part of supply chain strategy. A key component will be developing better visibility into hard demand using distributed commerce-management tools. Another will be deploying new yield-management techniques to help build collaborative design processes and prioritize customers. To gauge the significance of the latter, consider how much money your company leaves on the table by servicing orders (or customers) by sequence rather than profit potential. Recent estimates place the margin impact of this practice at -18 percent per year.

Armed with these front-end capabilities, companies will be better able to sell what they have in stock economically and make what the market wants, thus enhancing top-line and margin growth. Such is the case with Zara, a particularly innovative Spanish fashion retailer with almost 500 stores worldwide. The company consistently delivers a steady stream of trendy, low-cost clothing to young, fashion-conscious customers—as many as 12,000 designs per year, none of which are on the retail shelves for more than four weeks. Several supply chain innovations make this performance possible:

- Store managers across the company send customer feedback directly to designers via hand-held devices. This helps keep designers instantly abreast of fast-changing trends and demands and gives Zara a jump on curtailing the production of less-desirable merchandise. The result is better-managed inventories and lower obsolescence costs.

- With short manufacturing runs and the ability to access up-to-the-minute demand data, Zara can bring new fashions from the drawing board to store racks in two weeks, instead of the industry-average nine months. As a result, Zara can catch fashion trends while they're hot and optimize pricing.

- By deploying advanced information technology and supply chain management tools, Zara can disperse its operations more cost effectively: Capital-intensive steps are executed in factories owned by Zara's parent company, while labor-intensive steps are outsourced to a network of small workshops

with which Zara has built exclusive relationships.

Supply chain innovations such as these have helped Zara grow by more than 20 percent per year, with profit margins in excess of 20 percent and no increase in net debt over the past five years.



As companies migrate from internal-only to extended supply chains, collaboration will become the most strategic capability.

More than ever, companies that manage their businesses the old-fashioned way (taking orders, buying supplies, building product, and shipping it from the warehouse) may lose out to businesses that focus their energies on design, brand management, and sales and marketing, and outsource the rest. The reason is that supply chains are becoming too complex for any one entity to manage in a competitively dominant way. Which means that tomorrow's winners will be the companies conducting the orchestra, not the ones playing all the instruments.

One such conductor is DaimlerChrysler, maker of the Smart micro compact car. Conceived in 1994 by Mercedes-Benz and Swatch founder Nicholas Hayek, MCC Smart Co. now is on its way to being a successful car manufacturer. Contributing to that success is a host of collaboration-based innovations. For example, almost all activities at Smartville (Smart's industrial estate in Hambach, France) are outsourced, with suppliers located adjacent to the factory. On a just-in-time basis, suppliers deliver fully finished, large modules—such as the body, doors, rearend (with engine), and drivetrain—to the assembly facility where all cars are built to order. In addition, modules are finished and tested at supplier facilities a few steps away from the final assembly operation, which minimizes inbound logistics costs and ensures rapid solutions to problems. Lastly, suppliers hold the Smart car inventory and modules on their books and are only paid once a car is accepted by inspectors and is ready for delivery. While sales volumes below expectations did leave suppliers holding extra inventory and capacity for some time, the system is designed to minimize inventory at each tier, resulting in lower costs for Smart and its suppliers. Recently, sales have begun to catch up with projections.

Although the company is not yet profitable, its sales are rising 14 percent per year, compared to 6 percent for the Mercedes-Benz line. Profitability is expected by 2004.



Assets and functions not core to value delivery will be divested to specialists that can make more money on them.

Historically, companies have outsourced non-core functions based on cost; that is, selecting the lowest bidder. But that is becoming a riskier strategy, because vendors that operate on slim margins will be less and less able to match the types or levels of service offered by other operators. Also less viable will be vendors that continue to absorb low-margin manufacturing plants or warehouses, hoping to make profits on volume.

Instead, intelligent companies will recognize that they must find new ways to do business, perhaps through shared-profit arrangements in which suppliers benefit from their success. Profit-sharing arrangements go beyond the traditional outsourcing deals, in which companies convert supply chain costs from fixed to variable, thereby reducing expenses and making it possible to serve customers more flexibly. Companies can substitute new, variable cost outsourcing contracts for owned fixed assets, such as trucks and warehouses, thus reducing capital on the books and using only the capacity that is needed rather than owning the excess. For example, under profit-sharing arrangements, an outsourcer can also receive performance bonuses for meeting or exceeding cost and customer service targets, especially when the performance generates higher profits for the client company.

A great example of a company taking advantage of outsourcing is Microsoft, which recently launched the Xbox, its new video game console. Well before the November 2001 launch, Microsoft contracted with 40 major suppliers and nearly 200 component vendors, established complex logistics channels with clearly defined performance metrics, and integrated its business systems with those of their suppliers. In effect, Microsoft created a customized supply chain.

Microsoft's commitment to collaboration has contributed greatly to the Xbox's success, allowing the company to source components locally within different geographies, create new logistics channels, and quickly adjust supplier capacities to support manufacturing in new regions. One such collaborator is Flextronics, which assisted Microsoft with product design and handles manufacturing and distribution. Both it and Microsoft capture detailed information about each component, which means that, because every serial number of every component in every Xbox has been recorded, it is relatively easy to trace and locate problem parts. Another key partner is Solecron, which provides Xbox repair and warranty services. Other outside companies handle customer support.

A sophisticated supply chain, innovative processes, leading-edge technology, and a strong commitment to collaboration and communication enabled Microsoft to ship 1.5 million Xbox consoles by the end of 2001—a notably short cycle time between announcement and production. After the initial shipments, this strategic outsourcing model is geared to manage variable demand, making the supply chain more adaptable to ongoing and evolving customer requirements.



The greatest margin potential will occur after a product ships, as service and support become as important as the product itself.

With more people seeking solutions instead of specific products or brands, a growing number of goods are becoming commodities. Responding to this trend, supply chain winners will be working harder to bundle great products with strong service offerings, thereby maximizing long-term customer profitability and catering to customers' increased emphasis on total cost of ownership.

Customers will increasingly purchase products where the

product is a conduit for content, services, or other value that exceeds the intrinsic value of the product itself. Additionally, business customers will change their focus from procuring the product based on its attributes alone to emphasize the total service provided, including maintenance and operational reliability.

As a result, connecting product sales to the service network will become a prime value driver for many companies. That means supply chain executives must deliver not only the initial product but also an ongoing stream of products and services to the consumer—often through different channels and even different locations. These changes will add complexity to most companies' supply chain operations, but they also will become a major source of revenue and profit growth.

Chicago-based Abbott Laboratories was a pioneer in the application of total-cost-of-ownership principles. For decades, it has been providing "total customer care" services to hospitals. These are healthcare bundles that include up-front basic patient-care products coupled with numerous back-end diagnostic and related services.

Abbott's total customer care approach actually began in the late 1960s. At that time, corporate management recognized that becoming the leading pharmaceutical company was not a viable option, despite the fact that pharmaceuticals at the time accounted for 99 percent of its revenues. Consequently, they set out to identify areas where the company could excel. After careful study, they concluded that the best path was to excel at creating a portfolio of products that contribute to lower-cost health care, principally hospital nutritionals, diagnostics, and hospital supplies. Abbott already had experimented with hospital nutritional products (which are designed to help patients quickly regain their strength after surgery) and with diagnostic devices (one of the primary ways to reduce health care costs is through proper diagnosis). Abbott eventually became the number one company in both of these arenas. In fact, it now ranks among the top 10 pharmaceutical companies worldwide, with total revenue expected to grow 10 to 11 percent in 2002, to nearly \$18 billion.



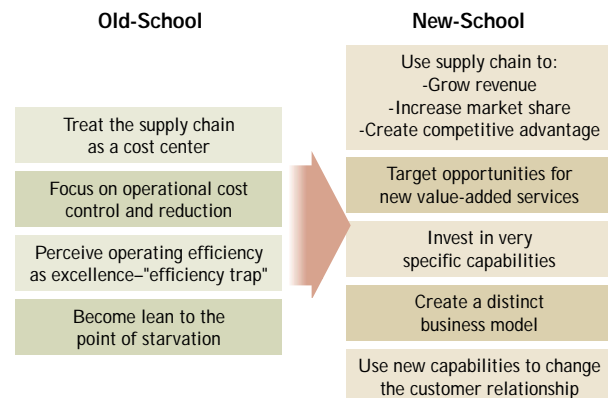
The ability to integrate new and innovative capabilities with corporate business models will drive higher levels of value creation.

In the near future, a company's ability to adapt and change itself will become even more critical. Part of the reason is collaboration: Companies that are positioned to work efficiently with multiple partners will get most of the action, while those that are difficult to work with will largely be ignored. Rapid and "virtual" partnering also will be key to new supply chain management strategies, as the best integrators work together to attain the biggest prizes.

But developing a flexible, adaptive supply chain strategy while running a business is about as simple as changing the wheels on a car while it's moving. Nevertheless, forming such a strategy can be done, must be done, and, as demonstrated

EXHIBIT 3

### Old-School Vs. New-School Supply Chains



by Kroger, has been done.

In the late 1980s, Kroger saw the superstore concept coming to food retailing. Partnering with software, logistics, and equipment partners, it responded by completely rebuilding its store and supply chain operations. For example, Kroger became the only major supermarket operator with a three-tier distribution system. This allows it to secure favorable terms on slower-moving items by buying in full truckloads without bogging down other channels. Tier one facilities consist of a campus of distribution facilities that support each Kroger operating division, which handle traditional quick-turning merchandise. Tier two is composed of facilities for slower-turning items—primarily general merchandise and health and beauty care items. Tier three facilitates the flow of slow-turning seasonal merchandise and store supplies.

Kroger's new business model was designed to accommodate leading-edge distribution systems. By providing real-time, online inventory information, the company's "warehouse information network" (WIN) helps coordinate service across Kroger's regional distribution centers and operating divisions. Tightly integrated distribution also is valuable because Kroger has outsourced the management of several distribution centers to third parties.

By leveraging its market dominance, a centralized procurement system, and a modernized logistics network, Kroger has successfully kept down costs while increasing profit margins. Moreover, by consolidating its distribution centers, Kroger expects to reduce working capital and product-acquisition costs while minimizing the amount of capital needed to further modernize the network. All of these innovations—and perhaps more—will be needed to stave off Wal-Mart, which could, according to some, move from number nine to number one in the grocery business by 2005.

### Transforming to Create Value

As shown in Exhibit 3, there is a growing gap between the ways that old-school companies and innovative companies think about their supply chains. The former view their supply chain costs as key performance metric, while the latter posi-

tion the supply chain as a key element in the formation and execution of new business strategies. The first view, of course, is not wrong; all companies must work to serve customers as efficiently as possible. However, it is more and more essential to balance cost concerns against the need for supply chain capabilities that also promote collaboration and revenue growth.

Those sorts of capabilities lie at the heart of “supply chain value transformation,” or reinventing the supply chain for long-term competitive advantage. The idea is to leverage supply chain functionality to enhance shareholder value via revenue and profit growth. Exhibit 4 presents some of the most important components of a supply chain value-transformation strategy. All of these companies seek to drive growth and profitability with programs that link supply chain management to new performance metrics. Many of these programs parallel the predictions noted earlier—for example, collaboration, outsourcing, and integration—and all involve a creative rethinking of how supply chains deliver value going forward.

Supply chain value transformations will require companies to demonstrate new levels of leadership, aggressiveness, and risk taking. However, as supply chain management becomes an increasingly central contributor to revenue and profit

EXHIBIT 4

**Key Supply Chain Transformation Programs**

Target emerging customer and channel needs...	...to exploit new revenue opportunities
Integrate the front and back end of the supply chain...	...to maximize long-term customer revenues
Achieve real collaboration with partners...	...to create many more business model options
Deploy supply chain assets...	...to those most qualified to make money on them
Tie new service offerings to the product...	...to capture increased revenues
Integrate needed capabilities from multiple parties...	...to create the most compelling value proposition

Source: Accenture 2002

growth, companies that fail to transform their supply chains will likely suffer financially as well as competitively. After all, cost cutting is finite: No company can reduce costs indefinitely. On the other hand, revenue-enhancement is infinite: Companies theoretically can grow forever. And the truly successful ones will be leveraging supply chain innovations to make that growth happen.