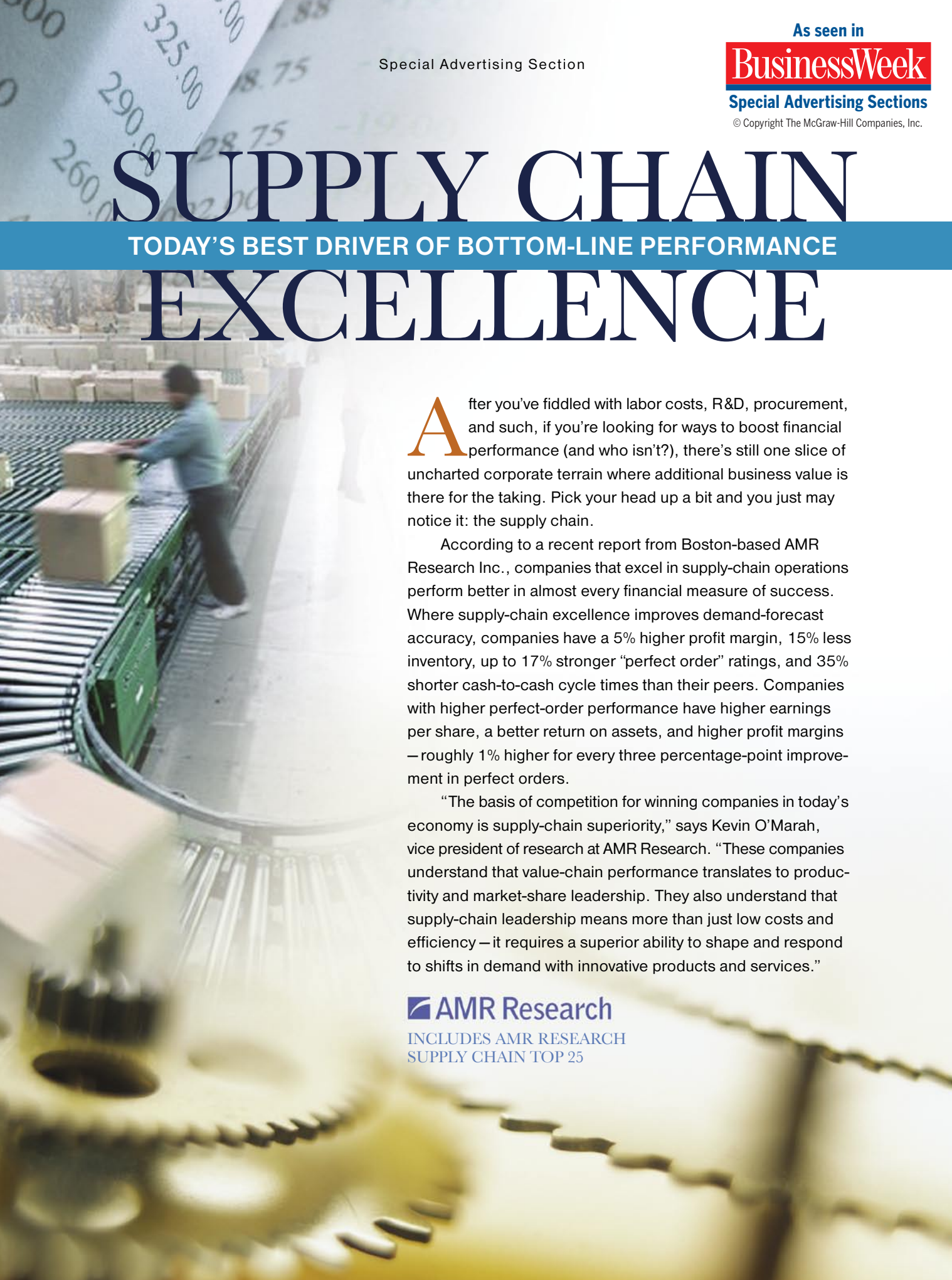


# SUPPLY CHAIN

TODAY'S BEST DRIVER OF BOTTOM-LINE PERFORMANCE

# EXCELLENCE



After you've fiddled with labor costs, R&D, procurement, and such, if you're looking for ways to boost financial performance (and who isn't?), there's still one slice of uncharted corporate terrain where additional business value is there for the taking. Pick your head up a bit and you just may notice it: the supply chain.

According to a recent report from Boston-based AMR Research Inc., companies that excel in supply-chain operations perform better in almost every financial measure of success. Where supply-chain excellence improves demand-forecast accuracy, companies have a 5% higher profit margin, 15% less inventory, up to 17% stronger "perfect order" ratings, and 35% shorter cash-to-cash cycle times than their peers. Companies with higher perfect-order performance have higher earnings per share, a better return on assets, and higher profit margins — roughly 1% higher for every three percentage-point improvement in perfect orders.

"The basis of competition for winning companies in today's economy is supply-chain superiority," says Kevin O'Marah, vice president of research at AMR Research. "These companies understand that value-chain performance translates to productivity and market-share leadership. They also understand that supply-chain leadership means more than just low costs and efficiency — it requires a superior ability to shape and respond to shifts in demand with innovative products and services."

 **AMR Research**

INCLUDES AMR RESEARCH  
SUPPLY CHAIN TOP 25

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In fact, AMR Research recently named its top 25 supply-chain performers — manufacturers that have embraced demand-driven supply-chain practices and technologies and are winning as a result. Led by Dell, Nokia, and Procter & Gamble (chart), the companies share a distinct approach. “Leading companies view their supply chain as a strategic competitive asset to be maximized and not as a fixed-cost liability on the balance sheet,” says Michael Maguire, vice president of supply-chain business development at SAP America, in Newtown Square, Pa. “When you talk to supply-chain leaders at a company, you very quickly know on which side of the ledger they view supply-chain operations.”

Other vendors agree that approaching the supply chain as part of the company’s core competency is a key marker of supply-chain excellence. “Companies sharing this view understand that, with proper management, they can take massive amounts of cost out, or be able to have the right merchandise on the shelf for the customer to buy,” explains Joe Cowan, CEO of software vendor Manugistics Group Inc., in Rockville, Md. “Supply-chain leaders understand the strategic importance of their supply chain and work very hard to ensure that they properly manage and control it.”

## CASH IN HAND

Moreover, experts say, supply-chain leaders are driven by customer demand. “They base the entire system on meeting the customer need or solving the customer problem,” says O’Marah. “They do not focus on using the Internet or technology tools to improve plant operations or any of the other hard assets they own. They use the tools to have a higher perfect-order rate or reduce total materials-handling cost and still meet customer orders. For them, the customer really is king.”

In the 1980s and for a decade thereafter, that saying meant mostly that companies sold in the way the customer wanted. But today’s supply-chain leaders routinely change their operations — in ways such as how they replenish a shelf, pack a box, load a truck, or dispatch a fleet — to meet customer needs. It’s all about what Procter & Gamble’s supply-chain experts call “the moment of truth” — the time when the customer chooses the vendor’s product from the shelf. If the supply chain does not ensure that the product is actually on the shelf when the customer makes his or her choice, the moment of truth ends without a purchase.

Supply-chain leaders consistently make choices that support customer satisfaction — and, more importantly, customer payment. “People always forget about this,” says O’Marah. “They talk about delighting the customer and exceeding their expectations. All that stuff is fine, but it’s completely useless if you lose money with

every transaction.” Supply-chain leaders make what customers want to buy, rather than merely trying to sell what the company makes, and ensure that customers are satisfied and pay for their purchases.

## GETTING YOUR SHARE

Such dedicated focus on supply-chain operations can generate dramatic business benefits. A recent AMR Research report compared the supply-chain processes of companies judged to be the best, median, and worst performers. The research calculated the amount of cost that could be removed from supply-chain operations when companies use supply-chain tools to improve from worst to best practices.

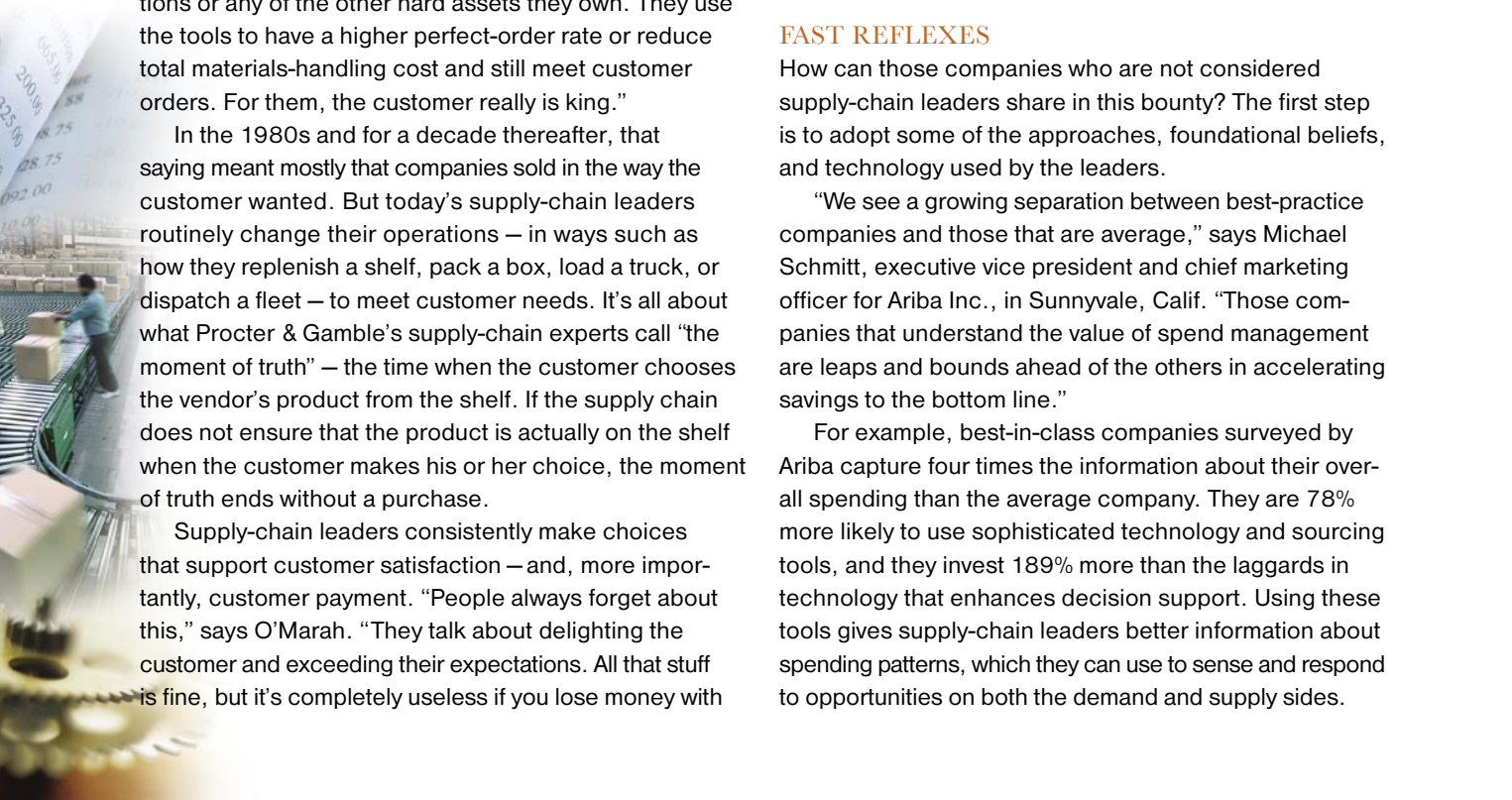
The verdict: supply-chain leaders are prime candidates to share in what O’Marah estimates as \$488 billion in untapped annual operating margin. Interestingly, this sum is approximately the same amount that was believed to be lost after the dot-com bubble burst in 2000 and 2001. “People expected the Internet to change the world, but most bet on the concept that it would dramatically affect supply-chain operations through B-to-C and B-to-B sales,” O’Marah says. Instead, the Internet’s primary value to supply-chain operations is as a communications platform that supports collaborative design, planning, execution, and replenishment. “Today we know who knows how to use these tools to their advantage,” he says. “The \$488 billion in potential operating profit will be earned by the companies who use these tools, not the ones who sell them. All of that value is still there, and it will accrue to the companies that take advantage of this way of doing business.”

## FAST REFLEXES

How can those companies who are not considered supply-chain leaders share in this bounty? The first step is to adopt some of the approaches, foundational beliefs, and technology used by the leaders.

“We see a growing separation between best-practice companies and those that are average,” says Michael Schmitt, executive vice president and chief marketing officer for Ariba Inc., in Sunnyvale, Calif. “Those companies that understand the value of spend management are leaps and bounds ahead of the others in accelerating savings to the bottom line.”

For example, best-in-class companies surveyed by Ariba capture four times the information about their overall spending than the average company. They are 78% more likely to use sophisticated technology and sourcing tools, and they invest 189% more than the laggards in technology that enhances decision support. Using these tools gives supply-chain leaders better information about spending patterns, which they can use to sense and respond to opportunities on both the demand and supply sides.



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"Changes in opportunity may present themselves at any time," says Schmitt. "A company that takes weeks or months to react is at a substantial disadvantage to the companies that can react in days or hours. At the end of the day, supply-chain excellence is all about companies making decisions faster than their competitors."

Yet typical supply-chain tools can present companies with an ocean of information about customer demand, supplier capabilities, and internal capacity. "These data can hit you like a blast from a fire hose," he adds. "The challenge is to use tools that help you make sense of that information at a granular level, define what's important, model it, and optimize it to make decisions faster than your competition. It's that ability to sense and respond that's separating the best-in-class spend-management leaders from the laggards."

## GO WITH THE FLOW

Moreover, because leading companies understand the strategic importance of their supply chain, they elevate

decision making to senior executives. "The success that some companies are clearly achieving and the pressures from some customers such as Wal-Mart are forcing other manufacturers to seriously rethink their supply-chain operations," says Cowan of Manugistics. "These companies choose tools based on how well they can improve the supply chain. The decision is based on what makes sense for the benefit of the entire enterprise, rather than the benefits to just one particular organization, such as procurement or IT."

Recognizing the bottom-line value that supply-chain excellence can deliver, some experts even advise that companies elevate it to a board-level issue. "To make the transition to supply-chain leadership, companies must return to the basic questions of how they measure their supply-chain operations," says Maguire of SAP. "If they focus primarily on efficiency and cost minimization, they will be solving yesterday's problems with yesterday's solutions."

Instead, he says, companies should begin to measure

## AMR RESEARCH SUPPLY-CHAIN TOP 25

- 1 **Dell** The defining demand-driven supply network (DDSN) business. Growing 17% in the PC business on a \$40B revenue base is phenomenal.
- 2 **Nokia** Historically a great innovator; supply-chain best practices turn ideas into profitable businesses.
- 3 **Procter & Gamble** P&G's consumer-driven supply chain is the defining architecture for large consumer companies. Best practices in product innovation and supply-chain effectiveness are tops.
- 4 **IBM** IBM is growing the equivalent of a \$10B business every year and has overhauled its hardware supply-chain and product-development processes to the tune of 70% better, faster, and cheaper.
- 5 **Wal-Mart Stores** Everyday low prices defines the customer demand driving this and, increasingly, everyone's supply chain.
- 6 **Toyota Motor** Lean is one of the top three best practices associated with benchmarked supply-chain excellence. Toyota literally wrote the book.
- 7 **Johnson & Johnson** Johnson & Johnson shows consumer and life sciences leadership delivered with embedded innovation into multiple channels.
- 8 **Johnson Controls** Little known, but much admired, JCI has pioneered such principles as product platform strategies in the hypercomplex engineering challenge of the auto industry, all the while making money and growing.
- 9 **Tesco** The UK-based grocer was the first to really succeed with direct-to-consumer sales while maintaining killer inventory turns and growth.
- 10 **PepsiCo** Pepsi's consumer-centric businesses "sense and respond to" the pulse of demand with product innovation and lean supply chains; youth markets seem aware as the Mountain Dew crowd grows.
- 11 **Nissan Motor** Lean and stylish, Nissan combines much of Toyota's execution with its own highly successful design.
- 12 **Woolworths** The supply-chain operations of this Australian retailer are regarded as pioneering in the use of 21st-century supply-chain principles.
- 13 **Hewlett-Packard** The IT mega-provider combines some units in transition (server division) with others that are world-class (printer division) and has merged the CIO and global supply-chain function in a single individual.
- 14 **3M** Diversified is putting it mildly for this industrial and consumer products leader. Its extraordinary combination of the practical and the cutting edge has units like Industrial Services operating in a DDSN mode.
- 15 **GlaxoSmithKline** Maybe the strongest big-name pharma player to emerge from the industry's current troubles, GSK innovates not only in the area of discovery but in the industrialization and commercialization of new drugs.
- 16 **POSCO** The Korean steel giant has begun to garner attention for its extraordinary success in managing a hugely capital-intensive business.
- 17 **Coca-Cola** Like archrival Pepsi, Coke knows how to quickly cycle consumer needs, tastes, and trends back to the market with winning products; witness the Dasani bottled-water success story.
- 18 **Best Buy** The ultimate short-lifecycle retailer, Best Buy sells cutting-edge electronics to the gadget enthusiast. By realizing the DDSN principle, the retailer has radically thinned inventories and delivered enviable in-stock positions.
- 19 **Intel** By working across the electronics value chain Intel has managed what few could, to be massively asset-intensive and yet nimble in the market.
- 20 **Anheuser-Busch** Born-on dating is no marketing ploy. It is a supply-chain challenge that other brewers can't easily meet. No one has taken real-time demand responsiveness further than AB.
- 21 **The Home Depot** A pioneering category killer, The Home Depot is cutting-edge in logistics and innovative services.
- 22 **Lowe's** Lowe's faster growth challenges nemesis The Home Depot via a consumer-friendly shopping experience.
- 23 **L'Oréal** By telling consumers they're "worth it," L'Oréal has shaped demand and delivered.
- 24 **Canon** The world's largest maker of copiers has engineered a new supply chain and rapid growth.
- 25 **Marks & Spencer** A pioneer in the use of RFID in stores, M&S manages to grow and stay lean.



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their supply-chain visibility, responsiveness, and adaptiveness. When these measurements are connected to the overall top-line measurements at the CEO level — such as the growth of market share, revenue, and product mix — the supply chain will start being viewed at the boardroom level as a strategic asset instead of a shared cost liability.

In addition, leaders try to synchronize their supply chain with that of their suppliers, communicating anticipated needs so that suppliers know what will be expected of them. “There is an understanding here that the supply chain is not static, that you can’t solve the supply-chain problem once and be done,” says Cowan. “Good companies continue to adapt as conditions change. But that requires working with a solution provider that can help you solve problems, apply new thinking, and find a strategic way to approach the solutions. A software-only solution can be a disaster. You need a partner who will help you adapt to changing conditions.”

## JUST-IN-TIME WORKFORCE

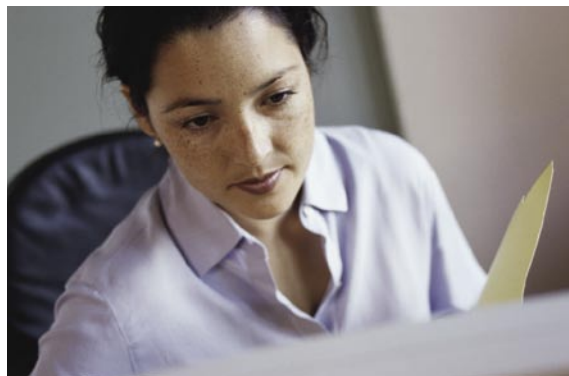
Supply-chain leaders are also willing to expand their control of the supply chain to areas previously considered out of bounds. For example, the workforce is a critical asset for many manufacturers and other companies that provide goods or services. Recognizing the importance of this asset, some organizations are beginning to apply supply-chain concepts to managing their workforce.

“Workforce management is as strategic as other critical infrastructure investments that companies have made in terms of achieving boardroom objectives such as earnings per share, profitability, and revenue,” says Michael DiPietro, vice president of product marketing and strategic alliances for Kronos Inc., a workforce-management software vendor in Chelmsford, Mass. New technology allows companies to focus on demand signals — such as customer behavior, the economy, market trends, and changing corporate strategy — so they can more effectively staff their operations and schedule workers.

“It’s a fundamental question of how changes to your work, assets, and supplies affect your workforce,” says DiPietro. “When front-line managers can understand demand better, their workforce decisions become more demand-driven, translating demand into workload requirements and building the ‘perfect’ workforce to accommodate those.”

One large health-care company, Phoenix-based Banner Health, is using workforce management to link demand with staffing and scheduling. The company, which employs 27,000 workers in 19 hospitals, six long-term care centers, and other facilities in eight midwestern states, estimates that 40% to 50% of its operational costs are spent on labor.

Banner implemented Kronos workforce management software to more accurately capture time and attendance



## Supplier Diversity Doing Well by Doing Good

Not all aspects of supply-chain excellence are a function of technology and tools. For Cargill, the international provider of food, agricultural, and risk-management products and services, supplier diversity is a critical component of its performance-centric supply-chain operations.

Cargill makes a point of including suppliers from many backgrounds — including small businesses and businesses owned, controlled, and operated by minorities and women. As a result, the company is making continuing progress to satisfy its diverse customer base, enrich communities, and enhance profitable growth.

Supplier diversity is critical to meeting government small-business and diversity goals — but it happens also to be a winning strategy for achieving supply-chain excellence. “We find that diverse companies, even though they typically are smaller, are more attentive to our needs,” says Tim Thomas, director of supplier diversity for Minneapolis-based Cargill. “They are often more amenable to assisting us with R&D projects and on-time delivery solutions, and they address procurement niche areas that larger corporations aren’t always willing or able to fulfill.”

Better supplier service means better support for Cargill’s customers. “Supplier diversity becomes a distinctive value and a competitive advantage for us,” he adds. “We think it’s a win/win situation for everyone — Cargill, our diverse suppliers, our customers, and the communities that we and our customers live and work in — by providing jobs that bring money back into the community. There is no reason why companies shouldn’t embrace supplier diversity. It’s just a matter of doing good business!”



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data and pay employees. Now patient demand is factored into scheduling and staffing. Banner employees have input to their work schedules, payroll checks are received sooner, and payment errors have been reduced. These changes have contributed to improved employee satisfaction and retention — critical in a marketplace where nursing skills are in short supply — and enabled Banner to reduce labor costs as well. “Our workforce is extremely happy with the new system, and our management is, too,” says Kathy Schultz, a Banner IT executive.

## PINPOINT ACCURACY

In certain industries, such as electronics components, rapidly fluctuating demand creates the twin problems of excess inventory and inventory shortages. To help even out inventories for manufacturers, distributors and brokers buy and sell between 5% and 15% of all products — a marketplace worth from \$15 billion to \$50 billion.

New technologies and services are helping some manufacturers optimize their inventory shortages and excesses. “It’s a very inefficient process today,” says Stu Clifton, CEO of service provider New Momentum Inc., in San Clemente, Calif. “Using our combination of software, hosted services, and a network-security appliance, companies can address their inventory liability problems and implement best practices that will mitigate these problems.”

One industry consultant recently used the New Momentum subscription service to find a missing part for a client. “A large consumer-electronics manufacturing company was about to go ‘down line’ on production, which could have cost millions of dollars,” says Brian O’Neil, general manager of consultant IC Trends in Sunrise, Fla. “By using New Momentum’s MarketMaker1000, we were able to reference the data and locate the parts from a local vendor within minutes. The manufacturer’s line stayed up and running, and we gained not only profit from this deal, but a loyal and happy customer.”

## THINK BIG, START SMALL

So how should “average” companies begin to pursue supply-chain excellence and the attendant bottom-line rewards? Think big, but don’t go too broad. “You should start small — across a certain customer set or supplier set, for example — but be wide in terms of enhancing the complete cross-enterprise supply-chain process, from a secondary supplier to an OEM to a distributor, all the way to the end customer, for example,” says Maguire of SAP. “Make sure that you get a tangible, measurable win within 120 to 160 days. You need to have a longer-term supply-chain improvement plan as a roadmap, but from what I’ve seen, every supply-chain improvement team

needs to justify its existence with quantifiable success every two quarters to stay intact.”

O’Marah from AMR Research recommends starting with the sales and operations planning process “because it is simple, requiring only that you convene and attend a meeting. And it’s a perfect place to learn how the technology can help you. If you want to learn how to use a forecasting tool or digest sales data or simulate market acceptance of a promotion, that’s the meeting where you should play with the tools.”

Another recommendation is that companies begin embedding product innovation into supply-chain operations. Says O’Marah: “Innovation can’t be an externality. If all of your R&D, product development, and market-planning activities exist as isolated activities, you will miss this boat for sure.”

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