

chain reactions

Looking for ways to boost your competitiveness
and add more value to your customer interactions?
Look no further than your supply chain.

When your best customer phones to request a reduced price, do you grab the Alka-Seltzer and start crunching numbers? If so, you might be considered, well, old school. Today's savvy manufacturers are eliminating such crisis calls altogether by implementing new processes and technologies to determine what their customers really want.

For example, let's say you produce a widget for your best customer based on certain ISO specifications. But the customer only agreed to those specifications because that's what you offered. By asking what specifications your customer actually needs, there may be dozens of ways you can cut costs.

While, many manufacturers have assumed that customers want specific products or components, those same customers often would be happy with equivalent products or components. "What you think is important, may not be important," says manufacturing specialist Kelly Salwei, a principal at Olsen Thielen & Co Ltd. "The more accurate question is: 'What's of value to my customers?'"

And, being of value goes beyond lowering your price. "For instance, consider providing concierge services, such as inventory management," suggests Salwei. "This creates savings for your customers because you've reduced their in-house expenses."

In a nutshell, adding value means realigning your supply chain, end to end, to interact with your customers in new ways that keep your business competitive in a global market.

BRIDGING THE GAP

Not long ago, Mounds View-based Multi-Tech Systems Inc., discovered its customers wanted shorter wait times for tech support. "We kept throwing more staff at the problem," says Del Palacheck, vice president of manufacturing for the company, which makes telephony, Internet, remote access, and device networking products. "But, it still took too long to get answers."

An internal review pinpointed the source of the problem.

It wasn't the number of people answering the phone, but rather access to engineering information. The solution: restructure technical support to be an engineering function. "Now, our engineers are available to answer questions quickly," says Palacheck. "Plus there's additional synergy—support techs now assist with design engineering when they're not on the phone."

In addition, the company's former tech support supervisor was redeployed to develop a new knowledge base. "The knowledge base benefits engineering, technical support, and customers alike," Palacheck says. "It's reduced costs and, we believe, improved customer retention." (For more on Multi-Tech, see "The Survey Says..." on page 23.)

Another way to realign your supply chain is by bridging time-honored divides such as the traditional disconnect between engineering and operations. "For instance, engineers are responsible for innovating, but they typically don't know the impact on operations," says Rebecca Jasper of JasperSolutions LLC, a Minneapolis-based supply chain consulting firm. "So, they may specify five different types of fasteners without knowing that, operationally, it adds five-fold to the cost of sourcing, stocking, and assembling the product."

Instead, some suppliers are becoming part of their customers' design processes. By participating in project meetings during the design phase, you can reduce, or eliminate, unnecessary production costs. "Voicing concerns early in the design process allows engineers to find alternatives, such as standardizing one type of fastener," says Jasper, who works with companies across North America.

BACK AND FORTH

In short, aligning your supply chain to become customer-centric requires a two-way information flow internally and externally. This is a fundamental shift from the traditional one-way paradigm, where orders come in the front door and products are shipped out the back. To get started, survey your customers objectively and specifically. "This means

BY ANNE RAWLAND GABRIEL | PHOTOGRAPHS BY SARA JORDE



Del Palacheck

physically going to your customers on a regular basis, asking for items of importance, and then asking for a ranking of those items,” says Salwei, who adds that it pays to give priority to addressing the items ranked highest by the most, or the largest, customers.

Next, establish internal review and feedback processes that welcome suggestions, regardless of origin. “When someone on your shop floor identifies an improvement option, they must be empowered to communicate it,” says Jaspers, who adds that otherwise, people may talk about ideas over lunch, but only the walls will hear.

YARDSTICKS

Of course, communicating isn’t enough. You must capture and evaluate the information you receive. “If you can’t measure it, you can’t improve it,” says Multi-Tech’s Palacheck. “And word of mouth is not measurable.”

At the same time, however, many small and mid-sized businesses (SMBs) lack effective measurement or reporting capabilities, says Jim Ogren, president of the Twin Cities chapter of APICS, an independent association for operations management. “For example, manufacturers often tell me ‘we’re doing great with delivery because our people say we’re always on time,’” he notes. “But, they haven’t measured their delivery performance to see how it compares to today’s standards.”

In other words, you may deliver 92 percent of orders for certain products within 14 days. But, the industry standard may now be 98 percent in two days. “If you’re not measuring your performance against world-class standards, you don’t know where you need to make improvements,” Ogren says. “You also don’t know which improvements are worth making.”

Although he can tick off dozens of performance measures, Ogren says they don’t all matter to every manufacturer. “What’s important is finding the ones that are key to your business.”

TECHNOLOGY TO THE RESCUE

Not surprisingly, technology allows for some efficient ways to capture and analyze information. Although some say stand-alone spreadsheets are still sufficient for smaller manufacturers, many experts agree that integrated management software will soon be required, regardless of business size. “At companies without integrated management tools, we commonly hear about difficulties managing jobs, capacity, and inventory,” says Mike Nafziger, manager of IT consulting for the Minneapolis office of the RSM McGladrey



Kelly Salwei

professional services firm. “We just don’t know what it takes to make money’ is another complaint. Integrated management tools help you gather and analyze the information needed to make profitability decisions—without them, you’re just guessing.”

Once out of reach for SMBs, enterprise resource planning (ERP), customer resource management (CRM), and planning/forecasting applications have become increasingly affordable in recent years. Such technologies can help lead to better pricing decisions, more accurate production forecasting, and less excess—or obsolete—inventory. They also can quickly identify problem areas by accurately reflecting the quantity, sources, and causes for customer returns. Best of all, integrated management software aggregates raw data and turns it into statistical and analytical reports. “Instead of basing decisions on historical trends,

software tools assist with allocating resources based on current realities,” says Nafziger. “And you can do it out of the box, or nearly out of the box, without investing in additional people.”

While integrated management applications may even run on your existing hardware, there’s no one-size-fits-all solution. “It’s important to purchase the right technology for your needs—and for your vendors to apply it correctly to your organization,” says Nafziger, adding that implementation timelines also vary. “You can begin achieving efficiencies in as little as 90 days. But depending on the project’s scope, it could take over a year to implement all the bells and whistles.”

IN THE PIPELINE

Affordable tools for SMBs to integrate Web portals and electronic data interchange (EDI) are also here today. Web portals provide your customers with secure access to your management system via the Internet. Customer options can include adjusting their own orders, getting progress updates, or supplying you with purchasing forecasts. In turn, you can more tightly anticipate employee and raw materials demands, field fewer phone calls, and sell down stocks to match market shifts. In the nearer term, EDI will become increasingly common between companies of all sizes, Nafziger says. “Although many SMBs are still managing EDI manually, they are not going away,” he notes, adding that by incorporating an EDI module, your management system can automatically map production demands, which reduces bottlenecks and speeds turnarounds. “The more quickly you can get products to customers, the faster you get payment.”

Still, technology isn’t a panacea. “I can’t emphasize enough that technology rarely solves problems without serious consideration given to business practices and internal processes,” Nafziger says. “In other words, technology is part of the answer—it’s an enabling solution.”

Regardless of the technology tools, a customer-centric approach can expand your horizons. Olsen Thielen’s Salwei recalls such an example. “A parts manufacturer was unable to meet its biggest customer’s price demand,” he says. “So, it

MTI and DEED: Time to Improve the Supply Chain

A NEW JOINT STUDY AIMS TO STRENGTHEN THE BONDS BETWEEN MINNESOTA OEMS AND SUPPLIERS.

According to a new report released jointly by joint DEED and MTI, redefining and improving the working relationship between the state’s original equipment manufacturers (OEMs) and Minnesota-based suppliers will strengthen the state’s manufacturing base, make suppliers more globally competitive, and create more jobs for Minnesotans. The report, “Minnesota OEMs: Improving the State’s Supply Chain,” offers those conclusions, along with a host of other key manufacturing-related insights.

One key finding of the report, which was created through a series of in-depth interviews with officials at 14 major Minnesota OEMs, is that today’s manufacturers want cost-efficient suppliers that can meet high international standards for quality and which will also work with them to develop new products (thereby becoming more of a partner than simply a supplier). Understanding these sorts of requirements will help Minnesota-based suppliers capture a larger

share of business with the state’s OEMs, says MTI President and CEO Wayne Pletcher. “Minnesota-based suppliers provide more than \$500 million a year in materials and components to Minnesota manufacturers,” he notes. “But there’s plenty of room for improvement and growth. We would like to provide the tools to small and mid-size Minnesota manufacturing companies to become better suppliers or first-time suppliers to large companies. This enhanced supply chain synergism will help all companies grow and be more successful.”

The report is only the first step in an ongoing study of OEM-supplier relationships. With the support of the Blandin Foundation, MTI is taking a deeper look at developing initiatives that will improve customer/supplier relationships and overall supplier development. A full copy of the report is available online at www.deed.state.mn.us/facts/global.htm.

The Survey Says...

MULTI-TECH SYSTEMS GOES STRAIGHT TO THE SOURCE FOR ADVICE ON HOW TO CONFIGURE ITS SUPPLY CHAIN.

During preparations for ISO 9001:2000 certification late in 2000, Multi-Tech Systems Inc. decided word-of-mouth was an obsolete method for gauging customer satisfaction. With assistance from an outside firm, the Mounds View electronic circuitry maker developed a scientifically accurate biannual e-mail survey. Initially, the responses were glaring. "Seeing our customer's statements in black and white was definitely a catalyst for change," says Del Palacheck, Multi-Tech's vice president of manufacturing.

Topping the list was tech support wait times, which could last dozens of minutes. After restructuring support into an engineering function, wait times dropped to under five minutes. "And, in most cases, we answer questions in less than two minutes," Palacheck says.

Assembly line redesign

Next came accessory fulfillment, where wrong or missing item complaints stood out. At the time, Multi-Tech used a traditional assembly-line method for placing accessories such as manuals and CDs into shipping boxes. With distinct, but nearly indistinguishable, accessories required for numerous different product lines, a single wrong or missing item could cause problems.

Multi-Tech explored various options, settling on an accessory pre-bagging system. Now, its ERP software prints the exact contents on each bag and the listed objects are loaded. "Then each bag drops onto a super-accurate scale," explains Palacheck. "An arm advances the bag—but only if it's the correct weight."

Although the goal was to reduce wrong/missing complaints by 50 percent, complaints dropped by more than 90 percent. "In the process, we also redesigned our packages," says Palacheck. "Our customers like the packages better and we save more than \$90,000 annually in container costs. Also, we only need three employees for pre-bagging, so we've redeployed four individuals from the assembly line to work in other areas."

Turbocharging output

The third most significant adjustment was establishing an outgoing quality-measurement system. "We place over a half-million circuitry parts per day," says Palacheck. "With that high of a volume, issues work their way into the manufacturing process."

From inception, the outgoing quality system dramatically reduced instances of "he said, she said." Over time, as customer demands have changed, the system has permitted Multi-Tech to address a host of issues—from new RoHS (Restriction on Hazardous Materials) soldering expectations to limiting errors caused by supplier defects.

And the big-picture outcome? The company has turbocharged output and become significantly more nimble. "Most recently, a Fortune 100 called me on a Saturday morning about a highly specialized subassembly that we don't normally manufacture," Palacheck says. "By 3 p.m. on Monday, the customer had the requested parts and was on a plane to Mexico, where the lack of proper components was holding up some huge systems. Needless to say, they were very happy."

As for profitability impact, the privately held company doesn't release such figures. But, Palacheck gladly puts the results into perspective. "In 2006, we're producing almost three times the unit volume with the same number of employees as when we started 2001," he says. "And it all goes back to knowing what our customers want."

—A. R. G.

decided to explore who else might want similar parts and discovered opportunities in other areas of the country. Remember, the point isn't just knowing what's of value to current customers. It's also about having the systems and mechanisms in place that permit your business to evolve to meet new needs and exploit new markets."

Anne Gabriel is a Forest Lake-based freelance writer.

**PAULY
DEVRIES SMITH
& DEFFNER, L.L.C.**
INTELLECTUAL PROPERTY LAW

**PARTNERING WITH
INNOVATORS
& DELIVERING RESULTS**

**WWW.PDSDLAW.COM
612.746.4780**

School of Engineering

- Masters of Science degrees in:
 - Manufacturing Systems
 - Systems Engineering
 - Technology Management
- Master of Manufacturing Systems Engineering
- Graduate Certificates in:
 - Medical Device
 - Quality
 - Product Development
 - Manufacturing Management
 - Manufacturing Leadership

Leadership education you can apply as you learn

Call (651) 962-5750 or visit www.stthomas.edu/technology



UNIVERSITY of ST. THOMAS