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supply chain strategy

A Newsletter from **Harvard Business School Publishing** and **The MIT Center for Transportation & Logistics**

Dear Reader:

To stay on track and on point, every organization should remind itself—and its customers—of its mission once in a while. We're no exception. So here's our mission: to help supply chain managers understand and involve themselves in the big-picture questions of strategy that CEOs and other top executives are facing (or will face someday).

At many companies, the supply chain manager is much closer to being a central corporate figure today than in years past. That's partly because an efficient and agile supply chain is increasingly seen as a crucial differentiator of a company's products or services. But we believe that the supply chain is still underrepresented at the strategy table, and we'd like to help supply chain executives move even closer to the center of corporate decision making.

So in this newsletter, we try to look at supply chain issues from the CEO's viewpoint as well as the supply chain manager's. Our intention is to facilitate an understanding of the challenges facing other senior executives, so that the supply chain manager can learn to speak the language that the CEO and board respond to.

We also try to focus on the "how" more than the "what." That means providing specifics about what thought leaders recommend—and about what forward-looking companies are already doing.

And we try to stamp out jargon (no small task in the supply chain world). And we try to make it interesting. You, of course, are the judge of how well we have succeeded—please let us know.

Sincerely,

Ken Cottrill
Editor

How Soft Metrics Can Make Hard Choices Easier

Sometimes it's the factors that are hardest to measure—flexibility, communication, collaboration—that have the biggest impact on the bottom line. Learn how to put some numbers to these squishy issues.

BY KEN COTTRILL AND LOREN GARY

EXECUTIVES OF CANDLE LAMP COMPANY knew all was not well in the branch of the supply chain that stretched across the border into Tecate, Mexico. But their hard analytical data drew a confusing picture.

The U.S. company's facility there, which produced fuel and fuel assemblies for chafing dishes, was in some ways a model plant. On product quality and manufacturing efficiency, it was as good as the company's three plants in the States. But on time to market for new products, it was 12 to 15 months behind the U.S. facilities.

Candle Lamp's executives came to realize that the time-to-market disparity revealed a disturbing characteristic of the Tecate plant that hadn't shown up because there was no metric for it: a lack of creativity.

The firm pulled the plug, transferred production to the U.S. plants, and avoided what might have been a serious stumble in performance.

Difficult-to-quantify "soft" characteristics like creativity, trustworthiness, and flexibility can prove to be the difference between extraordinary and substandard performance from your manufacturing facilities, suppliers, and partners—especially now that companies are forging ever more alliances to wring competitive advantage from supply chains. But like Candle Lamp, most companies are unable to evaluate those intangible characteristics because they don't have metrics for them. It's only been recently that a number of experts and organizations have begun to create a body of useful know-how on collecting data and measuring capabilities in these areas.

It pays to go soft

Here are some of the soft characteristics that must be evaluated in a unit, a supplier, or a partner:

Creativity and ability to innovate.

A partner's ability to innovate can be crucial to an alliance's profitability. A supplier with a culture of creativity and innovation is a good problem solver, and good problem solving translates into cost-saving manufacturing solutions

and fast delivery of parts or components—important advantages in today's world of rapidly evolving products.

Candle Lamp expects a high level of creative thinking from its own units and its suppliers. "Where we discovered a weakness [at the Tecate plant] was with product innovation and creativity, core values of our organization," says Jarrod Kuhn, who as general manager runs Candle Lamp's supply chain and distribution operations.

There was tremendous talent there, but the facility was hampered by a rigid and hierarchical management style—plant managers didn't have the same passion for challenging the status quo that leaders of Candle Lamp's other manufacturing sites displayed, according to the company. At the Tecate facility, managers didn't promote the creative process, and ideas weren't exploited for value. As a result, the plant was weak on continuous improvement and was unable to collaborate successfully to design product features or improvements.

Of course, finding a way to measure creativity and innovation calls for—well, creativity. One method is to identify a hard metric that depends on creativity, as Candle Lamp did with time to market. Once the company linked the two characteristics, it could see the bottom-line implications of the Tecate plant's inability to innovate. "We began to realize the effects of slower and less effective implementations of product design, manufacturing process improvements, and capacity enhancements," Kuhn says. "This speed-to-market time lag converted to business opportunity losses."

Another method is to define a few particularly relevant aspects of creativity and create a numerical scale for each. If the aspect is, say, response to problems in the manufacturing process, the scale might run from "Not my job" paralysis (1) to a rapid, cross-functional, outside-the-box remedy (5).

Whatever the scale, it should be similar to ones you're already using. "You've got lots of hard metrics you are quantifying, like fill rates," says Kate Vitasek, managing partner of Supply Chain Visions, a supply chain consulting and education firm based in Bellevue, Washington. If your

How Soft Metrics Can Make Hard Choices Easier (continued)

company is already using a 0-to-100 scale for fill rates and other metrics, plot the aspects of creativity on a 0-to-100 scale too.

For an example of a grid for assessing a soft characteristic, see “Assessing Your Partner’s Culture.”

Ability to communicate and collaborate.

Purchasing companies often enter into alliances expecting high levels of communication and collaboration from their partners or contract manufacturers. The rapid pace of change in many industries is prompting many firms to see a responsive supply chain—one that can adapt quickly to changes in markets—as critical to high performance. And they see communication as a vital component.

Candle Lamp extensively uses distant contract manufacturers, so it considers a trading partner’s collaborative skills to be highly important. Its partners must be able to collaborate and communicate smoothly on the development and launch of new products. For example, a manufacturer in Asia must be open to adopting new standards if necessary to improve a product, and it must be willing to provide the resources to make those standards stick.

Measuring communication is no less tricky than measuring creativity. Some of the aspects of this characteristic you might assess in grid form are length of time needed to respond to an order change and the accuracy of the supplier’s information.

Trustworthiness.

As companies rely more heavily on distant suppliers and manufacturers in unfamiliar cultures, trust becomes an ever more important issue. The purchasing company may wonder whether its supplier will give higher priority to another company it has a relationship with. The supplier, for its part, may wonder whether its partner, in a period of soft demand, will reject products for supposed “quality” reasons in order to keep inventories low.

You can begin to put a number on a partner’s trustworthiness by looking at such factors as other customers’ experiences and the partner’s openness about its past performance and financial footing.

Another way to deal with the trust issue, once you’ve established a metric for it, is to rely on a trusted intermediary. For instance, Hong Kong-based Li & Fung enforces a code of ethics among the participants in its network of Asian manufacturers. An intermediary’s reputation may reduce the need for formal contracts requiring suppliers to

adhere to certain standards of behavior.

Flexibility and operational agility.

Flexibility is a crucial, but often overlooked, characteristic in a supplier, Vitasek says. “It can mean whether a supplier is able to jump through hoops when you need to take urgent action” in unexpected situations such as complicated product recalls, she says. The last thing you want is a protracted negotiation over prices when you are under the gun to resolve a situation.

Also, a supplier that scores low on flexibility will have trouble keeping up with the changing demands of modern markets. Executives should ask themselves: “If my business increases threefold or falls off the face of the Earth, does the supplier have the ability to flex up or downsize?” This can be very important in high-tech industries, where lead times can be as much as 26 weeks for hardware

items. Vitasek is currently writing an RFP for a high-tech company “that thinks its product will be a runaway success.” But there’s always the possibility that the product will fall flat initially, so the company needs a supplier willing and able to stay the course.

You can measure flexibility by asking a potential supplier to provide specifics on how it would deal with unexpected spikes or drops in demand. “Ask in the RFP how the supplier would manage such events, what upside production they have and what they will give you for free,” Vitasek advises.

Of course, the questions—and responses—will differ according to the type of supplier being evaluated. If freight transportation companies are under review, flexibility might mean “the carrier’s ability to do workarounds,” says Colin Finn, vice president for sales at the supply chain management and logistics consulting organization Pelyco Systems, based in Ottawa, Canada, and Foster City, Calif. For instance, “does it have relationships with other companies that make it possible to pull an order out of the queue when there’s a delay, break it down, and put it on an air carrier, if needed?”

The next step is to quantify the suppliers’ responses. Look at the range of answers, and assign scores as for the other soft characteristics.

Cultural fit.

Cultural fit is a multilayered issue, because organizational culture is itself multilayered. Some companies are hierarchical; others are matrixed. Some have hardball leadership; others have a mellow executive style. Business researchers have found that partnerships between

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ASSESSING YOUR PARTNER'S CULTURE

You can use a grid like this to assess and assign a numerical score (one to five, in this case) to any soft characteristic, such as creativity or flexibility. Here the characteristic is cultural fit—how well the culture at a potential partner or supplier matches your own. First, determine which phrase best describes the partner's practices. Then evaluate your own corporate culture to see how well the two organizations would see eye to eye.

Best Practice	5	A culture of continuous improvement exists across the supply chain.	Employees see that they are highly valued.	Cross-functional supply chain teams seek opportunities to benefit the entire supply chain, even if it means less revenue for the team's organization.
	4	Senior managers are educating operations-level "change leaders" on the need to change and how to create change.	There are substantial resources for employee development.	Cross-functional supply chain teams understand how improvement practices can be implemented by supply chain partners.
	3	Senior managers see a need for change and communicate that to employees.	Managers actively work to limit turnover; there's some support for employee development.	There is extensive use of teams at vendor companies, but for internal processes only.
	2	Informal improvement projects are in place.	There's little support for managers who try to develop employees.	There is some use of cross-functional teams within organizations in the supply chain.
	Poor Practice	1	No continuous improvement programs exist.	Employees are seen as expendable; all training is on-the-job.
Improvement and Change		People Management	Cross-Functional Teams	

organizations with similar cultures tend to be more successful than alliances between odd bedfellows. And when different nationalities are involved, as they often are today, cultural gaps can be enormous and far-reaching.

One option is to break down cultural fit into characteristics that are easier to measure. Vitasek uses three: Do the companies have a culture of continuous improvement? What are their people-management styles? And how much emphasis do they place on cross-company training? "I have found these elements to be important when trying to determine cultural fit between two companies," she says. Vitasek prefers to rely on the suppliers to quantify such soft characteristics. "If I were doing an RFP, I would ask the supplier to describe each of these areas and what metrics they use to measure them."

Alternatively, create your own metric for each of these elements on the basis of your knowledge of the supplier's operations. Again, a simple 1-to-5 scale may work well.

Putting it together

Once you've ranked suppliers on all of these soft characteristics, you can put the metrics together and build up a matrix of criteria that compares the performance of each candidate in both hard and soft terms, Vitasek says.

"It paid to go beyond the hard financial metrics and measure the impact of less visible, more complex aspects of the business operation," says Candle Lamp's Jarrod Kuhn. "The experience was a painful one, but a lesson learned." □

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