

Increasing Supplier-Driven Innovation

When customers collaborate with suppliers they can build trust, reduce relational stress, and increase innovation-related activities.

BY JOHN W. HENKE JR. AND CHUN ZHANG

MORE THAN 50 YEARS AGO, management guru Peter Drucker identified innovation as one of the basic ways in which a business builds and maintains a competitive position in the marketplace.¹ It wasn't until recently, however, that companies not only established internal environments conducive to innovation but also began identifying, cultivating and taking advantage of a wide variety of *external* sources for innovation.²

Among such sources, suppliers are recognized as having especially large innovation potential because they know what the companies — that is, their customers — are doing and need and also because mechanisms for knowledge transfer from supplier to customer are typically in place.³ But years of evaluating supplier working relations in various manufacturing and service industries reveal that it is one thing for a mechanism to be available by which suppliers may transfer innovation to customers and quite another for the suppliers actually to do the transferring.

Competitive Side Of Collaboration

Customer/supplier activities that are collaborative tend to build trust and subsequently foster supplier innovation transfer. There are, however, competitive activities in every customer/supplier relationship that result in distrust, which negatively affects such transfers. For example, a company and its supplier may diligently and unselfishly work together to provide the highest-quality end product, thereby strengthening their mutual trust. But when the company asks the same supplier for price reductions, both parties will compete to steer the negotiation to their own advantage, and stress will be created in their working relations. It is this relational stress and its accompanying distrust that cause suppliers to limit the extent to which they will transfer innovations to the customer.

Three predominant competitive activities cause such negative impact:

- Conflicting objectives among the customer's functional areas that put the

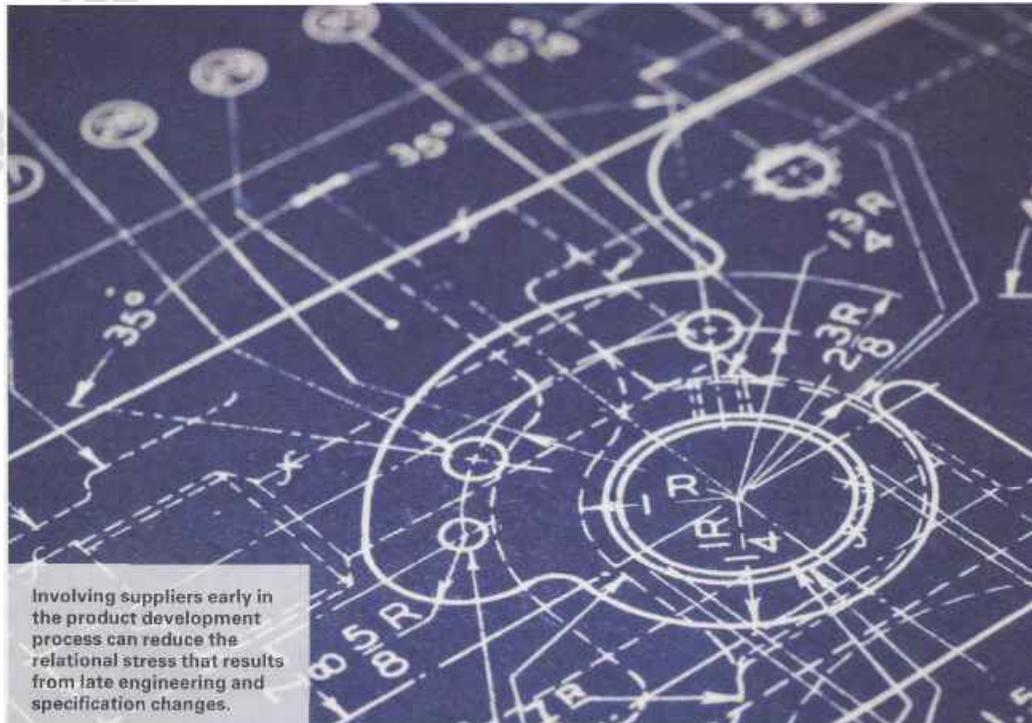
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THE LEADING QUESTION

How can a customer collaborate with a supplier more, while competing with it less, to increase the supplier's innovation-related activities?

FINDINGS

- ▶ Involve the supplier in the customer's processes, especially product development.
- ▶ Demonstrate openness and share information with the supplier in a timely manner.
- ▶ Work with the supplier to help it improve its competitiveness, both in cost and quality.



Involving suppliers early in the product development process can reduce the relational stress that results from late engineering and specification changes.

supplier in a compromising position, either in the middle of a battleground with nowhere to hide or in the distasteful role of referee.

- Excessive and often late engineering or specification changes that the customer asks the supplier to fulfill without regard for the needed resources or the reasonableness of the completion date.
- Price-reduction pressures on suppliers that consider only the customer's financial needs—not the fairness of the demand or the supplier's own financial state.

Conflicting Objectives Conflicting objectives are quite common in companies whose organizational structures are chimney-like. When the customer's internal functional areas do not talk to one another or are even in competition, its suppliers get caught between the proverbial rock and a hard place. That situation is quite typical in manufacturing companies where the purchasing and engineering areas do not reconcile their differing objectives when developing new products. Purchasing, consistent with its typical role, tries to keep costs down. Engineering, trying to maintain a solid reputation with the end-user, wants to manufacture a high-quality and long-lasting product. But these objectives are doomed to clash when communication between the two functional areas is limited or nonexistent. In the automotive industry, for example, such conflicts are commonplace, except at Honda Motor Co. Ltd. and Toyota Motor Corp. One supplier salesperson told us during the course of our research, "It is a joy to work with Honda. The purchasing people and engineers talk to one another and are generally in agreement about what they want from me, before I'm called in. It's certainly not like that at [car company name], where they hardly ever agree on anything."

Conflicts like these are also common in many service-industry companies, particularly when it comes to different functional areas agreeing on project specifications. An advertising agency representative told us about a particular client where "marketing almost always insists on our getting the best photographer, who we will tell to go to some exotic location for a shoot, but purchasing wants us to use lesser-known photographers, closer to home, to keep costs down. The situation has sometimes gotten pretty ugly over the past year, and every time I'm caught in the middle."

It's clear that conflicting objectives between a customer's internal functional areas can create con-

siderable stress for the supplier. Such stress can have a negative impact on the supplier's willingness to bring innovative ideas to that customer.

Engineering/Specification Changes Even after years of developing a new product or modifying a current one, engineers can become aware—sometimes just months before the start of production—of how a design change could improve the product. Or problems may arise in the final testing phase that did not surface in earlier testing protocols but require last-minute solutions. Nor are service-industry companies immune to such belated changes. Sudden variations in market conditions, new competitive activities, or unanticipated, rapidly developing opportunities can result in the need quickly to modify a marketing program, an advertising campaign or a sales promotion activity that had been evolving over months or even years. In each of these instances the supplier is subjected to enormous stress, as its personnel need to be pulled off other projects to help create a new program that meets the customer's needs within the time limits of the original project.

Such demands often result in additional costs, which may not be recoverable from the customer, and don't allow sufficient time to test and validate the change for the customer's benefit. All in all, late engineering and specification changes can create such stress that no one is pleased, even when deadlines are met.

More importantly, frequent late engineering or specification changes can have a negative financial impact on the supplier and cause resentment toward the customer. Suppliers interpret such demands as selfish customer behavior that reflects little concern for the impact on the supplier and its resources and little customer allegiance to its own internal processes and procedures. Subsequently, any supplier commitment to its working relations with the customer will be diluted, as will the supplier's willingness to transfer innovation to that customer.

Price-Reduction Pressure A customer's price-reduction pressure on a supplier can be win-win if applied in a manner consistent with trusting customer/supplier working relations.⁴ That is the exception, however. More typically, the customer demands a price reduction in an adversarial manner, making the situation win-lose: One party ultimately cedes

monies to the other party that it would prefer to keep for itself. If the supplier gives up more than it believes it can afford or perceives to be fair, resentment ensues; often, the supplier immediately begins planning how to make up the loss on other business with the customer. And if the customer gets a price concession from the supplier that appears to be less than fair, the customer begins to consider recovering costs in other dealings with the supplier, for example, or re-sourcing the business to a lower-cost supplier.

Regardless of the outcome, adversarial price-reduction demands usually result in both parties being dissatisfied, with a negative impact—in particular, stress—on the customer/supplier working relations. The supplier often concludes that the customer is not truly committed to having it as a supplier, while the customer ends up believing that the supplier is not committed to working together. Needless to say, the aggrieved supplier's pursuit of innovation activities involving this customer is not strengthened.

Supplier Innovation Behavior

Our experience has revealed two innovation-related supplier activities that have particular impact on the customer:

- Investing resources in technology to create innovative products or processes that could support potential future business with the customer.
- Sharing technology with a customer without the assurance of a purchase order.

Both of these activities indicate a supplier's commitment to the relationship that goes beyond a simple calculation of the current relationship's costs and benefits. It involves consideration of future business with the customer. Most important, these innovation-related supplier activities help a customer establish a competitive supply chain—and a reliable one. Supplier commitment, as reflected in its long-term innovation intentions, provides a basis both for the customer and the supplier to build confidence in the stability of their working relations and to act toward each other in an increasingly trusting manner.

In the automotive industry, for example, supplier willingness to invest in and share technology is known to be a major differentiator of successful customer/supplier collaborations.⁵ One reason is that automotive suppliers reserve their most advanced technological innovations for customers

with which they have trusting working relations. Such innovations can provide customers with the superior manufacturing capacity, improved product performance and customization capabilities required for long-term competitiveness in the marketplace.

Automotive suppliers also differentiate, even among such privileged customers, based on the extent of their collaborative relations. Those customers with which suppliers have the closest working relations are more likely to be given access—sometimes exclusive—to supplier innovations before the supplier takes the technology to other customers (with which it may have less cordial working relations).

Without new technologies, the competitive positions of many well-established companies in multiple manufacturing industries—computers, copiers, automobiles and construction equipment, for example—have eroded.⁶ A supplier's willingness to invest in and share technology is thus an important contributor to innovation-related benefits that a customer may realize, both directly and indirectly, over the long term.

Customer's Collaborative Activities

Given the importance of innovation to customers and our early informal findings on relational stress and supplier innovation behavior, we undertook a

ABOUT THE RESEARCH

Over a six-year period, we conducted in-depth analyses of the working relations between 37 companies and their suppliers in five manufacturing and service industries. We found that suppliers engaged in two specific innovation-related activities—investing in technology that benefited the customer and sharing technology with the customer—that varied considerably across the individual customer/supplier pairings.

To learn how customers can encourage suppliers increasingly to invest in customer-related technology and to share technology, we undertook a study of innovation-related supplier behavior in the North American automotive industry, ultimately examining more than 2,000 "buying situations" that involved Tier 1 (direct) suppliers to Chrysler, Ford, General Motors, Honda, Nissan and Toyota. A buying situation entailed the supplying of specific goods, such as tires, brake systems or exterior trim, to a specific vehicle manufacturer.

Because we were interested in suppliers' innovation behavior, we obtained information from them about their investments in new technology, both product and process related, for each automotive manufacturer, their sharing of new technology with the manufacturer, and their relational experiences at the buying-situation level. From this product- and manufacturer-specific information we were able to develop the Increasing Supplier Innovation Model, which shows that collaborative customer behavior encourages innovation-related supplier behavior and that competitive customer behavior (unreasonable price-reduction pressure on suppliers) discourages it.

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formal investigation into how a customer can increase supplier willingness to engage in innovation behaviors in the presence of relational stress (see "About the Research," p. 43). Our study found that a customer may best realize this goal by undertaking collaborative activities with its suppliers (see "Increasing Supplier Innovation").

The study identified three specific areas of collaborative activities that a customer can initiate with its suppliers in order to reduce relational stress and, subsequently, increase supplier innovation activities that potentially benefit the customer. These collaborative activities are:

- Involving suppliers in the company's processes, especially product development.
- Demonstrating openness and sharing information with suppliers in a timely manner.
- Working with suppliers to help them improve their competitiveness in both cost and quality.

Increasing Supplier Innovation

If the customer involves the supplier in its processes, shares information and provides assistance, it will increase that supplier's willingness to invest in innovation-related activities.

Supplier's Involvement Customers involve suppliers in various stages of their products' life cycle — from the earliest, when suppliers may provide design suggestions or even be given complete responsibility for the design, engineering and development of the

new product, to later stages, when suppliers may help commercialize the product and manage after-sale product quality. Involving suppliers in the product development process and using their skills and expertise in other, less formal, collaborative processes can reap great benefits for the customer. These benefits include shortened product development cycle times, lower costs and higher-quality end products.

The increased coordination between customer and supplier results in the supplier's more intimate involvement in the customer's business and greater motivation by both parties to invest further in the relationship. The coordination of time, effort and financial investments not only results in improved resource utilization but also increases switching costs for customer and supplier alike. That is, as coordination leads to other coordinating activities, the customer becomes increasingly more dependent on the supplier and the supplier on the customer.

The more the supplier becomes involved with and knowledgeable about the customer's needs, plans, strategies and product development programs, the more the supplier perceives that it can secure future business opportunities with the customer through its innovation-related activities. The supplier is therefore more inclined to work on customer-related innovation activities, ultimately benefiting the customer as well as itself.

Customer's Communication For supplier involvement to occur most efficiently and effectively, direction from the customer is required. It is the customer's communication of its plans and expectations, together with the sharing of its technology road maps, that helps the supplier better to meet the customer's needs. Moreover, open and honest customer communication creates a supportive and trusting environment that facilitates and increases the supplier's commitment to the relationship.

An important consequence of greater supplier commitment is the supplier's increasing willingness to do its own communicating, openly and honestly, with the customer. Before that can occur, however, the customer must demonstrate that periodic bad news from the supplier is accepted not only as an inevitable part of doing business but also as an important element of maintaining productive and responsive working relations. The

INCREASING SUPPLIER INNOVATION

Suppliers are more willing to invest in and share innovative ideas and technologies when their relations with customers are collaborative and open.



customer must therefore not use bad news from the supplier as a reason to punish it.

Such customer policies reinforce the supplier's perception of the customer's commitment to the relationship, and reduce the supplier's fear of punitive actions and lost business. As a result, the supplier will become increasingly more open and forthright in sharing meaningful information, positive and negative, with the customer. The net effect is increased supplier innovation investments, beneficial to supplier and customer alike.

Customer's Assistance While the competitive pressures of today's markets are causing customers to make increasing demands on suppliers for lower prices and higher quality, suppliers do not always have the financial means or technological capabilities to comply. As a result, suppliers frequently look to the customer for help and support, or the more enlightened customers may offer help and support before the supplier asks. Either way, the customer's assistance signals to the supplier that the customer has confidence in the supplier's long-term capabilities to meet its needs. With the supplier's confidence in the relationship's continuity thus fortified, the supplier is motivated to engage in reciprocal behavior, including customer-specific innovation investment.

What's a Customer to Do?

How a customer can increase supplier innovation is clear: The company should maximize its collaboration activities with the supplier and minimize any competitive activities that inhibit the supplier's inclination to innovate.

Maximizing Collaborative Activities To create an environment in which the supplier is willing to make customer-specific innovation investments, the supplier must perceive that its working relations with the customer are reasonably stable and capable of lasting long enough to recoup its investments. The supplier must also be convinced that the customer's knowledge of the innovation does not wind up with the supplier's competitors.

These conditions suggest that supplier innovation activities are not undertaken unilaterally by the supplier. Rather, they occur in response to customer-initiated collaborations that, unfolding over time,

convince the supplier that the customer is committed to creating working relations based on trust. The perceived customer commitment builds the supplier's confidence in the relationship's future, and it is likely that the supplier will reciprocate by making investments that help maintain and enhance the trusting working relations with the customer.

In other words, collaborative activities involving customer and supplier increase the supplier's willingness to invest in the relationship, as shown in the Increasing Supplier Innovation Model. The supplier becomes more forthright in sharing innovations with the customer, even without the assurance of a purchase order, and it is more willing to invest in new innovative processes and products in anticipation of future business. Underlying that willingness is the supplier's perception that the customer is committed to working with the supplier over the long term, as long as its goods remain competitive in price, quality and technology with other suppliers'. But even if the supplier falls behind its competitors, the trusting working relations with the customer imply that the customer will give the supplier a chance to catch up and may even help the supplier to improve its goods before sourcing them elsewhere.

Trust in the relationship is especially important to the supplier, and that trust must originate with the customer. While a supplier maybe predisposed toward trusting working relations with its largest and most important customers, it is the supplier that is at the greatest risk in taking the initial steps — say, by sharing proprietary information with the customer. After all, the customer could easily share that information with the supplier's competitors in hopes of finding a less expensive supplier or one that could provide an equivalent product or service. Thus, suppliers are loath to initiate sharing proprietary knowledge with customers with which they have an uncertain relationship.

Of course, because the customer has plenty to lose as well, it must have trust in the supplier. If, for example, the customer is given access to the proprietary knowledge of one of its competitors through a mutual supplier, it will be hard-pressed to trust that supplier with its own proprietary knowledge. Nevertheless, the lower relative risks faced by the customer require that it be the initiator of any activities aimed at building trusting and relatively

stress-free customer/supplier working relations. Similarly, the customer must also be the initiator of any collaborative actions involving the two parties.

Minimizing Competitive Activities The need for the customer to pressure its supply base regularly for reductions in cost is dictated by the realities of the global business environment. So the pressure cannot let up. But research has shown that if price-reduction pressure on suppliers is applied in a manner consistent with trusting supplier working relations, its negative impact will be minimized⁷ and relational stress reduced.

The other competitive activities in customer/supplier working relations — conflicting functional objectives and excessive/late engineering and specification changes — are more difficult to control in the short term. These activities, often symptomatic of systemic issues within a company, are not capable of being resolved without fundamental changes in processes and procedures that over time have become firmly entrenched in the company's operations. Even if the company is making progress in reducing the frequency and intensity of these problems, the corrective time frame is long. In the meantime, the customer must compensate by strengthening its collaborative actions. By doing so, relational stress will be mitigated and supplier willingness to invest in the relationship and in innovation activities will remain at a high level.

Toward Win-Win Situations

The Increasing Supplier Innovation Model and its associated recommendations reflect the importance to companies of aligning themselves with innovative suppliers in order to build a formidable extended enterprise.⁸ By following these recommendations, a company can help ensure that it is maximizing its opportunities for gaining innovations from its suppliers' knowledge, skills and capabilities, thereby increasing its competitive advantages in the marketplace while strengthening its supplier working relations — and strengthening the suppliers as well.

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