

Reinventing Supplier Innovation Relationships

Nine better practices gleaned from companies with experience on both sides of the table can help companies build stronger supplier innovation relationships.

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OVERVIEW: IRI firms constantly strive to improve their innovative capacity. Accessing external innovation is a central theme of this activity. While much has been made of accessing technology from universities, small high technology firms, and other non-affiliated entities, IRI executives are looking to a historical source of support: the supplier community. The purpose of this article is to describe nine better practices that help IRI customer and supplier firms bring more and more effective innovation to market. The nine practices were identified by interviewing both the R&D manager and procurement manager in eight customer firms and both the R&D manager and sales manager in eight supplier firms through workshops and individual interviews.

KEYWORDS: Supplier innovation, Open innovation, Alliances

In today's competitive environment, chief technology officers (CTOs) face tremendous pressure to deliver results. One source of innovation is suppliers. Customer firms seeking increased innovation may look to cultivate mutually beneficial

relationships with trusted suppliers in which the supplier is engaged early in the customer's R&D process to influence the direction of innovation (Schiele 2012). Working with current suppliers offers a number of advantages. First, both customer and supplier likely already view each other as valuable partners and have some knowledge of each other's capabilities and interests. The existing relationship may also ease negotiations over intellectual property rights, risk sharing, and cost recovery.

Typically, such relationships are more likely to pay off if the supplier firm is engaged early in the product development process and if the agreement provides a reasonable chance of profits to the supplier firm (Henke and Zhang 2010). However, combining forces in this way means marrying two teams from two different organizations and allowing them to work collaboratively through an R&D initiative, a process that may introduce its own challenges. For instance, in many cases, subject matter and technical expertise may exist in both teams, making effective communication critical for motivating, coordinating, and enabling the sharing of knowledge across teams (Gassmann, Enkel, and Chesbrough 2010). Finally, different functional groups in both the supplier and customer firms may have parochial agendas—explicit or tacit—that drive interactions, for instance, the natural desires of the customer's procurement group to decrease cost and of the supplier's sales group to increase volume. These agendas may be at odds with the agendas of R&D, creating confusion and sowing discord in the relationship.

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Reinventing Supplier Innovation Relationships

Exploring the power of relationships to meet corporate growth goals

Goal: To identify an actionable set of practices that firms can use to improve their supplier innovation relationships

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Trust is another fundamental issue, and a number of factors can affect trust on the supplier side, including excessive engineering changes as the project proceeds, and customers pressuring suppliers for long-term exclusivity (Monczka et al. 2010). On the customer side, managers may find it difficult to trust in the aftermath of a significant adverse event, for instance, one in which intellectual property was perceived to have been used or disclosed inappropriately. The fact that suppliers tend to work for multiple competitors in the same market environment may also affect the customer firm's ability to trust. Given this knowledge, customers may not be as open in sharing information as they might be, in an effort to prevent the possibility of information flowing to competitors. All of these factors can lead to a situation in which commodity products or minor improvements are easily transferred from supplier to customer while innovation follows a more tortuous path.

Difficulties aside, supplier innovation is too rich a source of opportunity to ignore, and firms are accelerating their efforts to explore its possibilities. The IRI Research-on-Research (ROR) project Reinventing Supplier Innovation Relationships sought to better understand how customer and supplier firms can navigate the pitfalls and build trust to create innovation and generate new value. The result of this work is a set of "better practices" that can help facilitate supplier-customer relationships.

Method

The team began by reviewing the literature as a group. In a series of three conference calls, team members shared findings, brainstormed important areas to explore, and developed a set of guiding questions to ensure data-collection activities focused on those areas. After some discussion, the team decided that open-ended formats, such as roundtables, workshops and interviews, were the best way to gather data. Another outcome of these discussions was an agreement on the importance of exploring the guiding questions from two functional perspectives (R&D and procurement in customer

firms, and R&D and sales in supplier firms). Finally, team members identified firms believed to be leaders in supplier innovation and invited representatives from those firms to participate.

At this point, the team embarked on a series of roundtables and workshops with executives who had participated in supplier innovation relationships, both as supplier and as customer firms. Each discussion was guided by the set of questions developed in preliminary work (see "Guiding Questions," *below*), but the free-flowing nature of these interactions added context and enriched the team's understanding of the many factors that go into such relationships.

The five workshops, held at IRI meetings, each attracted 50–70 attendees. At these workshops, we described the group's findings to date and asked for candid feedback on those results. These were dynamic, back-and-forth exchanges in which participants added their perspectives, described how the results applied to their firms, and made suggestions for new areas to explore. The discussion on accessing innovation from small, high-technology firms is a direct result of the input from these workshops, as attendees told us that these nimble companies are well designed to generate new ideas and capabilities. A team member captured the ideas

Guiding Questions

- Thinking about your firm's best customer/supplier innovation relationship, what are the leverage points and barriers that enable the relationship?
- Thinking about your firm's worst customer/supplier innovation relationship, what are the leverage points and barriers that undermine the relationship?
- Does your firm have an agreed-upon definition of commodity versus innovation? If so, what is it? How do you know when an innovation transitions into a commodity?
- Which functional group takes the lead role in innovation relationships and how does that role change as an innovation transitions into a commodity?
- What metrics or rating system does your firm use to measure the impact of customer/supplier innovation relationships?
- Do conflicting metrics exist within your organization (for instance, differing metrics or different expectations on the same metrics for R&D versus procurement)? If so, how do they affect both internal alignment and alignment with the supplier?
- What method does your firm use to achieve alignment, both internal alignment among key functional groups and alignment with the supplier?
- What are the leverage points and barriers that help or hinder the process of describing your technology needs to suppliers?
- How do legal issues and the legal function act as leverage points and barriers to effective customer/supplier innovation relationships?

generated in the workshops using flipcharts and notes. Later, these notes and charts were analyzed to extract common themes and insights, becoming part of our data set.

The workshops produced a number of important inputs. First, attendees asked us to reiterate that the study focused on product supplier relationships because product and service innovations are not easy to compare. Second, the team—and workshop attendees—struggled to accommodate in the study design the reality that large, industrial firms are complex entities that often act simultaneously as suppliers and customers, maintaining relationships on both sides of the table. The solution was to apply the supplier discussions and results to divisions or functions that acted as suppliers and the customer results to those that acted as customers.

Once we refined study design based on the outcomes from the workshop, we held eight roundtable discussions: four focused on customer firms and four on supplier firms, with participants identified by asking workshop attendees and group members for recommendations of firms they thought seemed to be leading the way in building strong supplier/customer innovation efforts. In customer firms, we invited both the R&D and the procurement executives responsible for supplier innovations from the identified customer firms. In supplier firms, we invited both the R&D and the procurement executives responsible for supplier innovations. The notes and flipcharts from these meetings added to our base of raw material.

We followed up these open discussions with a set of interviews with subject matter experts (SMEs), three executives recommended by workshop participants and two identified by the ROR team as academics with significant research experience in the field of supply chain management. These interviews followed the same pattern as the workshops and roundtables and were directed by the guiding questions. These discussions provided further support for the findings from our earlier inputs, confirming the importance of trust and the need for effective communication in effective supplier/customer relationships. The interviewer notes completed our data set.

Analysis of the raw data was focused on identifying common themes, exploring not only which topics came up most often, but also which topics produced energized discussions and where we found consensus or disagreement among participants. The outcome was a list of nine “better practices” for developing and nurturing strong supplier innovation relationships.

Results

When speaking of supplier innovation efforts, our workshop and roundtable participants described a relationship that may be best characterized as an alliance, rather than as a traditional customer/supplier relationship. That relationship typically is defined by a set of boundaries mapped by the parties in the collaboration. Outside the boundaries of that relationship, the alliance principles do not apply.

Each firm in our sample had a very limited number of these relationships (less than three), segmented by market,

field of use, or geography. The relationships were not all of the same scope or intensity, and these alliances appeared to work best in markets with a limited number of participants, from which the customer (or supplier) firm can pick the best partner. More diverse markets, those with 10 or more players, are more difficult to manage; in these markets, the bias is to employ a more traditional approach to customer/supplier relationships.

Both customer and supplier firms reported that some of their most effective supplier innovation relationships have been with small high-tech firms. These small firms are both hungry and agile, with a laser-like focus on commercialization and a lack of both inhibiting bureaucracy and baggage. At the same time, they often hold intellectual assets and technology of real value and can catalyze innovation by challenging the more established firm’s entrenched thinking.

Nine Better Practices to Support Supplier Innovation Relationships

Our analysis of the data revealed a number of common themes and a set of principles that we codified as nine “better practices” (see “Nine Better Practices for Reinventing Supplier Innovation Relationships,” *below*). Why not best practices? Because our participant companies are a diverse lot, operating in different industrial sectors and geographies around the globe. Management concepts that work in one firm or industry may work less well, or not at all, in another. When it comes to developing relationships, this context matters. While there was consensus on the nine principles, there was not agreement on the specifics of how they might be implemented. Thus, there can be no one “best practice.” We encourage readers to review our findings critically, taking what is relevant to a particular industry or situation and leaving the rest.

Nine Better Practices for Reinventing Supplier Innovation Relationships

1. Create internal alignment among key functional groups.
2. Agree on an internal definition of commodity versus innovation.
3. Actively manage the portfolio of supplier innovation projects.
4. Develop an effective communication structure to support a zipper approach to the relationship.
5. Create a common language.
6. Keep organizational responsibilities in phase with the asset’s transition from innovation to commodity.
7. Build and maintain trust.
8. Establish structures that allow each firm to respond to the dynamics of the other’s business model.
9. Apply meaningful metrics.

A supplier/customer relationship is a process, not an event.

It is also useful to realize that a supplier/customer relationship is a process, not an event. Some of the principles and practices we describe will be more relevant at the beginning of the process (for instance, defining the difference between a commodity and an innovation) and some will be relevant at later stages (actively managing the portfolio of projects). The key outcome of a supplier innovation relationship is the exploitation of an asset as it develops from an innovation into a commodity; this process leverages the skills and resources of the partners to exploit the asset in a way that neither could accomplish independently. Given that, it may be useful for managers to ask some thoughtful questions about how these practices might apply in their firms: Where can these practices provide value in my firm? Who is responsible for executing the practices if we adopt them? What value are we leaving on the table if we are not forging these innovation relationships? Answering these questions clearly, in advance, will help ensure the practices are implemented thoroughly and effectively.

Better practice 1: Create internal alignment among key functional groups.

The foundation of a healthy external alliance is a healthy internal alliance. The external relationship benefits when the partner sees one fully aligned firm, not individual functional groups, each with its own parochial agenda. Working with a firm that has not achieved internal alignment is, in the words of one roundtable participant, “like dating an octopus. Two arms are hugging me, two arms are strangling me. I have no idea what the other four arms are doing.”

Achieving internal alignment around customer/supplier relationships is complicated by the fact that numerous functional groups may be involved in the alliance; those most cited by our participants as important include R&D, Procurements, Operations, and Legal. Navigating these internal divides, and presenting a united front to the partner firm, requires clearly defining the roles, responsibilities, and authorities of each internal group when interacting with the supplier (or

Portfolio management is complicated by the supplier’s desire to increase its total business with the customer and the customer’s need for second sourcing.

customer) firm and specifying how each group’s role will change as the alliance’s activities transition from one group to the next.

Better practice 2: Agree on an internal definition of commodity versus innovation.

Better practice 2 is also an alignment issue. A firm’s embedded ideas about what constitutes innovation, as opposed to a commodity, will drive its reaction to a supplier’s overtures. A common internal definition will allow different groups across the firm to determine how they will respond to a supplier’s asset and structure a supplier innovation relationship based on a common understanding of the value of that asset. An asset defined as an innovation will be met with more favorable intellectual asset terms and conditions than those for a standard commodity asset. A commonly accepted definition may also suggest how functional groups inside the customer firm will allocate roles, responsibilities, and authorities with respect to the collaborative relationship.

Thus, codifying and sharing these definitions is an organizational intervention that deserves the attention of senior executives who are committed to reinventing their supplier innovation relationships. However, it is no easy task, as evidenced by the diverse set of definitions offered by both roundtable participants and interviewees. These ranged from distinctions based on the age of the patent to those focused on the amount of time the asset has been in the marketplace. The most satisfying definition, but also the most vague, was “as long as the asset provides a competitive advantage in the marketplace.”

Although our roundtable participants widely supported the idea of defining the difference between an innovation and a commodity, only one firm in our study had actually done it. There are consequences to this gap. R&D may look at an asset as enabling; procurement may see the same asset as expensive and margin diluting. Having this discussion early on and determining the center of decision making can minimize internal conflict between functional groups and external conflict with the partner. The interviewees supported this thinking. However, they were not aware of any other firm that had deliberately created internal alignment on the differences between these two powerful concepts.

Better practice 3: Actively manage the portfolio of supplier innovation projects.

Close, ongoing relationships between supplier and customer firms often result in a portfolio of projects that includes both innovation and commodity projects. Among our roundtable participants, this portfolio is most often governed by a series of committees that escalate decisions through several gated checkpoints to a senior executive committee. At each level of decision-making, managers are encouraged to be brutally honest regarding which projects are working and which are not. Both the customer and the supplier are encouraged to propose new projects and terminate nonperforming projects.

Portfolio management is complicated by the supplier’s desire to increase its total business with the customer and

the customer's need for second sourcing (the need to have multiple sources for critical resources to protect against physical disaster and encourage competitive pricing). Our interviewees, roundtable participants, and workshop attendees did not have a generic solution to this challenge, but each suggested that specific activities help keep the relationship on a positive path. These activities include identifying projects that the customer and supplier jointly undertake at the beginning of the innovation cycle, jointly developing an innovation survey to track performance of each project and the overall relationship in the context of innovation, sharing technology roadmaps in the relevant area under an appropriate agreement, and agreeing on the level and timing of second-source development.

Better practice 4: Develop an effective communication structure to support a zipper approach to the relationship.

Communication is both an enabler of and a key structural force in any relationship, and it spans both written and verbal communications as well as the language of action. Words are important, but they must be supported by management action that is congruent with what the words convey. The interaction of words and action gives structure to the relationship that emerges. It determines both the tone and context of future communications.

Companies frequently undervalue the structural components of communication. They allow the structure of the communication—and thus, of the relationship—to develop as needed. However, communication structure should be given mindful attention to ensure that the relationship

engenders trust and produces the desired outcomes for both parties. Our interviewees and roundtable participants frequently described a structure we have come to call “the zipper approach” (Figure 1). The zipper approach, which was common to these relationships, links specific managers in each firm with their counterparts in the other firm in a purposeful structure designed to facilitate frequent, meaningful communication. One key contact maintains the overall relationship, forming the base of the zipper, and the companies are zipped together via one-on-one, as-needed communication across multiple teams and functional roles. This differs significantly from the traditional supplier/customer relationship, in which firms communicate solely via single points of contact, in procurement for the customer firm and in sales for the supplier, to manage the flow of information between firms.

Sustaining this structure requires disciplined effort to maintain the quality and consistency of the information as it flows up and down each firm's hierarchy and laterally between functions across firms. This effort has little to do with supplier relationships and everything to do with the fundamental way the firm communicates, internally or externally. In short, if a firm does not communicate well internally, having a partner will not fix the problem. The challenge is both vertical and horizontal: A firm that does not communicate well between organizational levels (vertical communication) is unlikely to communicate well with different organizational levels in the partner firm. A firm that does not communicate well between functional groups (horizontal communication) is unlikely to communicate well with multiple functional groups in the partner firm.

Communication Schedule:

- **Steering team** communicates 1–2 times/year, in top-to-top meetings, to discuss a single project or all shared projects.
- **Decision SLT** communicates quarterly or semiannually to discuss key milestones and critical decisions.
- **Research managers and teams** meet frequently to discuss project details and progression.
- **Account Managers** are the key contacts; they communicate up and down the zipper and are informed about all projects between the two companies.

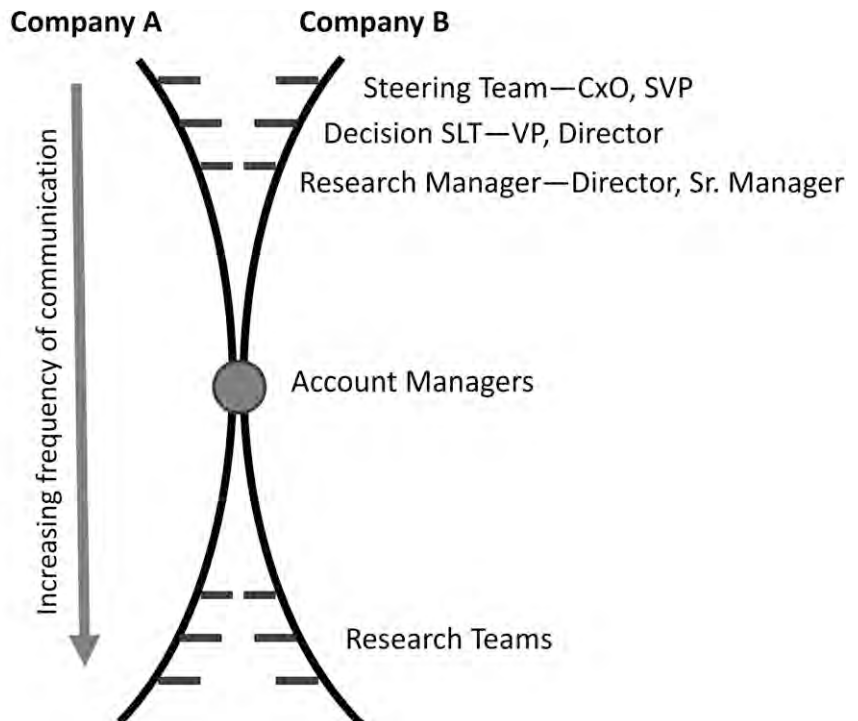


Figure 1. The relationship zipper

Both customer and supplier firms exist within business ecosystems that can change rapidly, unpredictably, and in important ways.

Better practice 5: Create a common language.

Supplier innovation relationships bring together team members from different companies as well as members from different functions within both companies. This interdisciplinary, cross-organizational structure can lead to misunderstandings if members from different firms or different functions use the same words to mean different things. This communication gap may be complicated by the fact that many issues in developing a joint innovation are technical in nature but require support from nontechnical team members.

Developing a common language across firms and functions will help minimize miscommunication and more strongly integrate the team. The team must develop a set of terms and means of communication that convey clear messages that can be understood by the least technical members of the team. One solution may be to adopt widely understood frameworks for communication, such as NASA's Technology Readiness Levels (TRL; Mankins 1995). Once all members understand the TRL framework and the team develops a shared definition of what each level means for the project at hand, team members with very different levels of technical familiarity will be able to understand the nature of the technology, its position on the maturity curve, and its likely timeline to commercialization.

Better practice 6: Keep organizational responsibilities in phase with the asset's transition from innovation to commodity.

Every innovation becomes a commodity over time, as competitors catch up and a new baseline is established. As this transition occurs, the organizational responsibilities of the groups inside each firm must be kept in phase with the innovation's evolution in the marketplace. Roles will change as the new product's position in the marketplace changes: R&D will become less involved as the innovation matures and becomes ready to incorporate into a product. The development

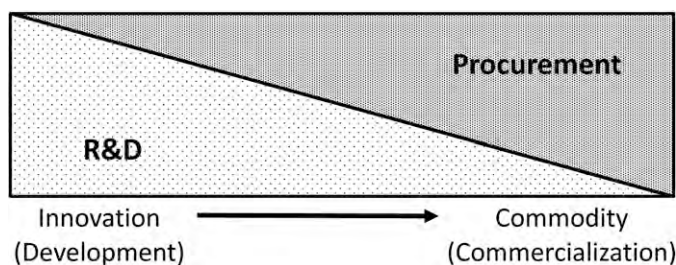


Figure 2. Transition from innovation to commodity

team's role increases as it brings the innovation-enabled product through the firm's Stage-Gate process. Procurement becomes more involved as alternatives to the innovation emerge and create opportunities for material substitutions and price reductions (Figure 2).

Better practice 7: Build and maintain trust.

It is not surprising that roundtable participants in both supplier and customer firms identified trust as a key enabler of fruitful supplier innovation relationships. However, the concept is fuzzy in many managers' minds. They struggle when asked how trust may be built into a relationship and how teams may be actively managed to support trust. This is a critical gap, since trust takes months (or years) to build and just moments to destroy. One of our supplier roundtable participants illustrated this when he described a situation that took place years ago—and still bothered him: "We showed customer X our newest innovation. Their procurement group shopped it around for the lowest price. They will not see a new innovation from us for quite a while." That relationship is irrevocably damaged.

Slowinski and Sagal's (2003) four determinants of trust can help clarify the construct and provide managers with specific guidance on how to build trust into the relationship. They describe four elements that are critical to engendering trust: competence, reliability, honesty, and caring. Every one of these determinants is under the control of management—individual team members who do not demonstrate these traits can be replaced, and organizational culture should support the expression of these traits at the company level.

Better practice 8: Establish structures that allow each firm to respond to the dynamics of the other's business model.

Both customer and supplier firms exist within business ecosystems that can change rapidly, unpredictably, and in important ways. Truly innovative offerings may themselves produce changes in those ecosystems. These offerings require significant consumer education, and they may face different regulatory constraints in different regions. Our interviewees, roundtable participants, and workshop attendees gave us plenty of examples. One consumer products firm described how Walmart required all of its suppliers to remove 10 chemicals from their products. A food firm discussed the challenge of redesigning products after New York City banned trans fats. Another discussed how powerful megatrends can be; for example, in response to consumers' desire for natural and sustainable products, Unilever has a stated goal of sourcing all products sustainably by 2020.

Customer firms cannot meet these demands without the support of their suppliers. The problem goes beyond reacting to megatrends and includes methods for understanding the scope, scale, and timing of new requirements and developing the technologies to satisfy them. One tool for building the needed understanding is Voice of the Supply Chain (Snell 2012), which some firms are using to understand each segment of the business system. While the tools,

metrics, and management techniques of this process are outside the scope of this article, the goal of the tool is to travel up and down the supply chain to understand the current state and likely future state of each segment. This analysis is performed both downstream (from the firm back through its supplier base) and upstream (from the firm to its customer base).

Better practice 9: Apply meaningful metrics.

Metrics drive behavior. The old adage that “you get what you measure” is true in supplier innovation relationships. Our participants were concerned that current measures used to measure supplier/customer relationships serve procurement and sales well but tend to undervalue the contribution of R&D and innovation to new product development and, ultimately, to growth.

One interesting measure identified by the R&D organization of a major supplier firm is a subjective measure of overall customer receptivity to innovation. Customer firms are assigned grades of A, B, or C by R&D operating managers. The grade, which is very subjective, emerges from the accumulation of interactions with the customer. For instance, if the customer firm asks for testing samples on a regular basis and constantly rejects the samples with no explanation of who or why they did not meet expectations, that customer firm’s receptivity score will suffer. A customer firm with a history of accepting supplier innovations and working to incorporate them into products will have a high score. There are some modifiers, as well. A customer firm with a huge market share or robust blocking patents will score higher, for instance. While this metric is far from rigorous, it does point managers in the direction of customer firms that are receptive to new ideas and firms that will work hard to commercialize supplier innovation.

Conclusion

The goal of this study was to help IRI firms understand how to collaborate more effectively with suppliers to bring innovation to market. The importance of this activity cannot be

overemphasized in a technology world that is rapidly evolving, becoming globally connected (all the way down to the device level), and facing consumers who expect the next big thing on a regular basis. The ROR team’s work taps into the learnings of IRI members and subject matter experts with decades of supplier innovation experience. Each participant in the process described these relationships from the perspective of his or her particular industry and company. The resulting success stories and lessons learned provide strong guidance for other companies seeking to create or strengthen supplier innovation relationships.

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