

Collaborative Strategies

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The Collaboration Continuum

Understand the full goals and complexity of collaboration before moving forward.

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Being opposed to collaboration these days is a bit like being against quality, or maybe even profitability. Managers accept that they need to collaborate with partners, suppliers, customers, and sometimes competitors. Still, despite the best of intentions, attempts to collaborate often flop or are blocked before they ever have a chance to fail. That's because, for many managers, creating the preconditions for success isn't easy and the inherent risks aren't always obvious.

Business collaboration isn't new; it's ubiquitous. And there's even general agreement among managers that collaboration is necessary and good, and that companies can't compete without an active collaboration agenda. What's new and perhaps ambiguous about the widespread use of the term in IT circles is the fact that collaboration represents so many different types of joint activities--from periodic information sharing between business units to complex, multiyear product development and marketing projects among partners.

And although it's being practiced and the efforts are sincere, collaboration has produced many disappointments. The fact is, carrying out a cohesive, effective collaborative business strategy that will reap rewards takes effort and planning. The evident costs and benefits must be identified and understood up front. Those serious about collaboration can start by examining and understanding five key issues:

- Why businesses must collaborate and why intense business competition makes it necessary.
- Who benefits and what the prerequisites are for successful collaboration.
- A taxonomy of collaborative modes--by method and by purpose.
- The information infrastructure required by complex collaborative arrangements.
- The hidden risks and costs of collaboration, including the new issues and challenges line managers will confront when they collaborate with others.

Though overall strategy is important to business-technology executives, these key issues reflect the underlying concerns of many line managers, too.

Forces of deregulation and privatization, emerging markets, the convergence of technologies and functions--such as the blend of pharmaceutical and traditional food technology needed to create health foods--volatility, globalization, and the Internet have collectively created new opportunities. These opportunities demand new ways to compete as, increasingly, the old rules and strategies are becoming ineffective as a basis for creating value.

For example, from 1985 to 1995, most U.S. managers were preoccupied with catching up to the cost advantages of Japanese and Korean manufacturers. Many initiatives--Total Quality Management, Business Process Reengineering, outsourcing, downsizing, and others--focused on cost reduction and efficiency as a response. These were needed steps. But downsizing can't help a company capture the emerging market for digital imaging, develop new products created by the combination of pharmaceutical and personal-care technology, or understand the implications of peer-to-peer computing to one's business.

These kinds of innovations require that managers come to terms with new rules for new games. Strategy is no longer merely an ability to position one's business in a given industry, but also to create a new competitive arena. It's about marrying efficiency with innovation and requiring managers to consider the following: cycle time and cost reduction, leveraging scale and scope, reduction of resources, partners as role models for change, and reduction of risk.

To understand the importance of cycle time and cost reduction, a manager must know that competing in the new market requires reductions not just in cycle time for product development or manufacturing, but more important, in the time it takes managers to react to changing competitive conditions. It also means gaining new levels of efficiency. For example, collaborating with suppliers in an open and transparent environment can reduce friction that results in excess inventories.

Managers also must do a better job of leveraging the scale and scope of their businesses. Should the various divisions of 3M have a common account-management strategy toward Wal-Mart? (They do.) Should various divisions of General Motors have a common development platform for ignition systems? (They should, but they don't.) Companies that don't take advantage of common platforms waste resources because of redundancy in development. Most people think financial institutions should provide one common statement of accounts to customers who may have a credit card, checking and savings accounts, mortgage, auto loan, and life insurance within a single institution, but the business units believe they own their assets, channels, and customers.

Consumer centricity is about letting consumers decide how they want to be served. The old adage "If you love someone, set him free" may be appropriate for forming more enduring customer relationships.

When industrial and technological boundaries merge, as in digital imaging or gene therapy, managers must harmonize old and new knowledge. The new knowledge (for example, in the fields of genetics and biochemistry) may not be an integral skill base of an older business, such as a cosmetics company, but that will change.

As for the resources required for succeeding in the new competitive environment, the demand for talent and capital may be too onerous for a single company to handle. World-class skills may be easier to find outside than to develop internally. Even if you can afford the capital investment, the time requirements could be better met via collaboration.

There's also the issue of using partners as role models for change. Large, established companies may seek to acquire the agility and speed of smaller businesses to come up to speed. Collaboration often can infuse a new culture into an older one.

Collaboration also can reduce risk, a value that's often overlooked. For example, a company may need to conduct multiple experiments to decide whether a particular new market strategy is appropriate. By partitioning risk (that is, accessing knowledge from others at low cost), these multiple experiments can be carried out.

There are many motivations to collaborate--internally with other business units and externally with suppliers and partners--these days. However, as indicated in the results of a recent *InformationWeek* Research survey on [collaboration](#), most companies are focused on cost and cycle-time reduction. In other words, they concentrate on efficiency in the supply chain and in purchasing, rather than on innovation. That's why the benefits of collaboration are underleveraged in most companies. For many, collaboration isn't natural. Exercising autonomy is.

Taxonomy of collaboration

Collaboration requires two or more parties to work together to make joint gains. Line managers notice the obvious costs of collaboration, but the benefits aren't always as visible. Managers may question whether the benefits of collaboration are greater than the administrative costs.

Social scientists can talk about the emergence of "boundaryless" behavior, but in most large and diversified companies, managers seldom collaborate. They may talk and communicate, but they're hard-pressed to quantify the return on collaboration investments. They also have trouble differentiating between tangible and perceived costs. The latter can include frictional losses that result from politics or corporate culture, the cost of implementation time, cross-charges and transfer prices, and administrative costs. Further, IT systems across multiple business units may be incompatible. Without a common data strategy, legacy systems can frustrate collaborative efforts.

It's important for proponents to realize that the costs of collaboration are here and now; the benefits represent potential. This gap is accentuated by the desire of top managers to institute accountability for performance at business-unit levels by relating pay to unit performance. As a result, companies often don't reap the biggest benefits of collaboration: elimination of redundancies, leveraging best practices from within, and innovation. Collaboration isn't constrained by lack of knowledge about strategic benefits, then, but by internal IT limitations, managerial culture, and the nature of managerial performance-measurement systems within the company.

All is not lost, however. Though most diversified global businesses have low levels of internal collaboration, this can change dramatically if there's a clear and strong demand for it. Wal-Mart's desire to deal with one focal point at 3M, a large supplier, led to rapid reconfiguration of resources and processes across multiple 3M divisions and the formation of a common account-management team.

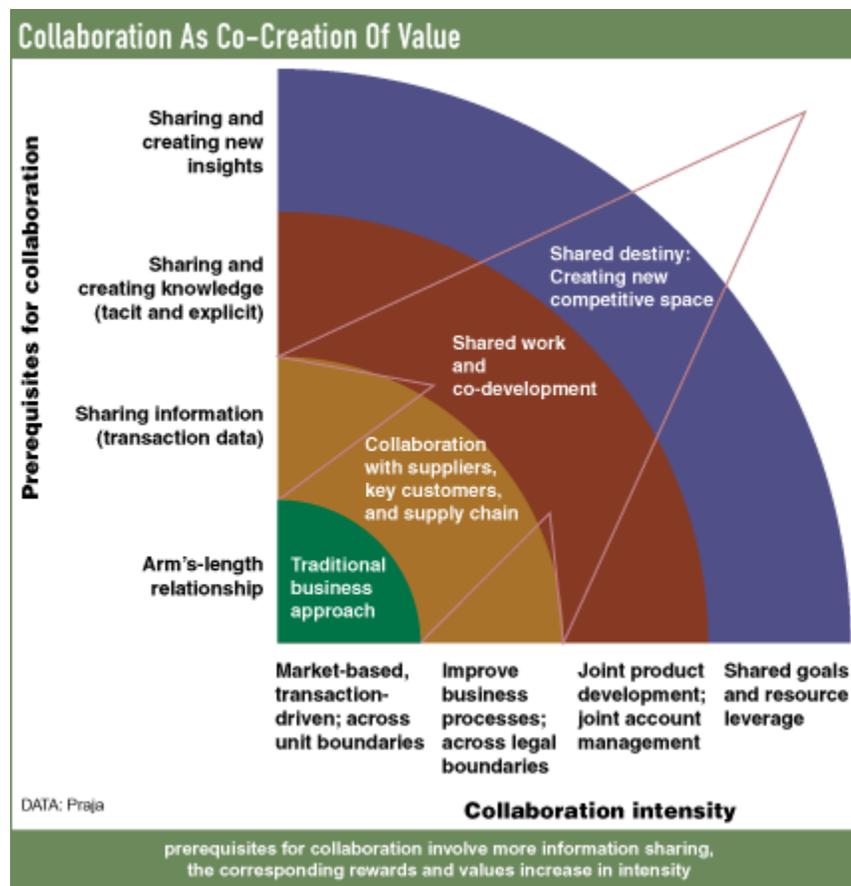
As General Electric has demonstrated, strong top-management expectations, coupled with processes and performance incentives, also can change the patterns of internal collaboration. In the past, the IT community--CIOs, consultants, application software vendors, and systems integrators--focused on knowledge management, that is, the sharing of explicit, text-based knowledge. While there are some notable successes, knowledge management as a whole has been less than an unqualified success, because the

critical knowledge that needs to be shared is tacit--the blended accumulation of structured and unstructured information. IT systems don't address this issue head-on.

Internal collaboration frequently is more difficult than collaboration with an external party--especially an external supplier or large customer. With an external party, the benefits and the data to be shared are more clear-cut. The primary sources of value from collaboration with suppliers are cost and response time--and, as a result, inventory reduction; with customers, the return comes in revenue maximization and customer satisfaction. New product-and process-development benefits may also arise from such efforts. This type of collaboration demands that information be shared based on common business parameters such as orders, aggregated sales data, inventory levels, operational planning, and product-related engineering data. Supply-chain applications seem to be a successful form of external collaboration because the primary shared information is clearly identified data, rather than tacit knowledge.

Tacit knowledge is more often tied to collaboration across business units within a single company. Data that is shared directly usually relates to increasing efficiencies in cycle time and investments in inventories. On the other hand, individual customer data and experiences, demographics of customers, and cost structures are not shared as easily, if at all.

Now that we have described the two extremes--collaborating with suppliers by sharing aggregate information, and the complex technical and cultural problem of internal collaboration--we can develop a taxonomy of collaboration that includes several levels of intensity and prerequisites.



This taxonomy makes it easier to assess the nature of collaboration that's emerging in the economy. Compared with traditional market-based transactions at arm's length, most companies have learned that working closely with suppliers and key customers in a network improves costs and response time. Such collaboration can establish more efficient business processes, increase sales and marketing opportunities, and enhance customer satisfaction.

Reaping the full benefits in this phase requires that companies in the network share information. However, while companies may be willing to share order management, aggregated sales and marketing data, and sales forecasts, they are likely to balk at giving up individual customer sales data, product cost structures, financial and resource allocation data, and market intelligence. This second kind of sharing calls for new levels of trust and incentives, which companies are more likely to address as they move beyond improved business processes and toward shared work and co-development. The most important requirement that emerges is the node around which the supplier network--or key customer network--is built.

A so-called nodal company provides intellectual and technical leadership and incentives that hold participants in the network together. The sheer size of a business may make it a nodal company, providing enough incentive for suppliers to want to become part of its network. That's true of companies that partner with GM or Ford. Alternatively, a nodal company may start with a new concept of business that attracts partners, as Dell Computer did. A company also may create an infrastructure that matches a wide variety of customers with a network of suppliers to create a virtual supply chain for each transaction. That's what Li & Fung achieved in the textile business. By accessing 7,500 suppliers in 37 countries, the \$2-billion-a-year Hong Kong supply-chain manager has become a nodal company that lets Ann Taylor and Abercrombie & Fitch rotate their fashions as often as every three weeks. Li & Fung manages information in the entire system, as well as relationships with customers and supplier networks, to deliver reductions in cycle time, cost, and risk. The company also balances workloads among its portfolio of suppliers in various regions of the world.

As companies move up the collaboration-intensity continuum, the tasks and requirements become more complex. So does the ability to co-create value. As companies move toward co-development and beyond, their efforts can be both inter- and intracompany. The technical and procedural infrastructures that enhance task sharing, resource leveraging, and goal sharing are intricate.

Infrastructure and collaborative modes: Business managers can layer in the IT requirements for various modes of collaboration as they move from arm's-length deals to sharing and creating new insights. The best way to identify changing IT needs is by focusing on one specific example of each level of collaboration intensity.

The table on page 38 illustrates the levels of collaboration intensity and their IT requirements. Note their characteristics. How do modes of collaboration generate value? There are four conclusions:

- The collaboration capacity of a management team becomes more evident as the intensity of the collaboration increases.
- Businesses require significant technical and social architectures under different modes to create and extract value.
- Clearly definable business processes across multiple legal entities are just a start in generating value from collaboration, even though 90% of CIOs and managers focus on that.
- IT architectures must give high priority to enabling the creation of new knowledge and developing new business insights.

Businesses should assess their collaborative capacity by critically evaluating their experiences in different modes of collaboration to identify needed improvements in both technical and social areas. Internal, in-depth case studies are an excellent way to do this. The appropriate technical architecture can facilitate some modifications of the social structure.

Risks and costs of collaboration

Of course, no collaboration assessment is just about benefits. The risks and costs are real. Managers should focus on these, as well as on the transaction and managerial costs associated with the strategy. At various points, they'll want to ask what information should be shared.

Managers willing to collaborate in creating a supplier network--phase two on the collaboration continuum--still are reluctant to share too much information. Part of this fear stems from concern that partners may pass along valuable information--individual customer profiles, internal cost structures, or product profitability by customer segment--to competitors. Consider an auto-parts maker who supplies GM, Ford, and DaimlerChrysler. While walls can be built, it's still possible that information and insights could leak from one customer to the next. Managers must assess this risk and compare it with the benefits of creating a transparent environment.

Supply-chain volatility: Who pays? An increasingly complex business environment characterized by globalization, deregulation, and pervasive information technologies has added a new dimension to the network of suppliers: Should suppliers incorporate their own corrections to the forecasts supplied by the nodal company? One way to deal with this problem is to be physically or technologically co-located at the operational level so there are no longer significant logistics penalties. Questions about the vulnerability of relationships in a global supply chain also may arise. While information transfer can be instantaneous, the ability to react and control inventory levels through a system of fast and focused alerts in a global supply chain may not be. Who pays the price--the nodal company, or the first- and second-tier suppliers? In the textile business, Li & Fung contracts for capacity with various suppliers instead of providing a forecast.

The fact that supply chains can increase systemwide efficiency is obvious. The system creates value. What isn't so obvious is who extracts the value from such systemwide efficiencies. The nodal company--such as GM or GE--can take a disproportionate amount of the incremental value created. So one must consider: Does the risk-return profile look equally attractive to members of the supply chain--especially during an economic downturn?

Another risk of collaboration is the need it creates to learn multiple systems. Most suppliers that are part of multiple supply chains must conform to the IT system requirements of nodal companies. Even within a large nodal company, the various divisions don't have common IT platforms. The investment necessary to implement and learn multiple systems is immense; so are the costs of continual management for suppliers. The costs and risks can be dramatically reduced for smaller participants in the supply chain through common standards and an open-systems approach.

Collaboration also raises the question of who owns the intellectual property. As we move to joint product/service development efforts across legal entities--phase three on the continuum--this issue can become quite troublesome. In lengthy collaborations that

involve multiple levels of managers and engineers around the world, the interactions create their own dynamic. Most often, the critical knowledge that needs to be shared and accessed is tacit. Managers need to agree on methods and systems so that a more accurate account for effort and contribution can be measured. Even within a diversified company, debates about cross-charges and transfer prices can slow collaboration across business units and regions.

There's also the cost issue. Most established companies start with multiple legacy systems. Often, companies undertake extremely costly and time-consuming approaches to data purification and to building the infrastructure for collaboration. The infrastructure assumes an implicit model of collaboration and an associated workflow. But managers may not have a good sense of how the current systems work. It's critical to monitor activities and understand how they impede actions before building a new infrastructure that forces you into a certain workflow. Otherwise, you'll find yourself trying to fix a problem without knowing what the problem is.

Laying the groundwork

While it's been practiced before, wide-scale collaboration is a new competitive imperative. However, managers need to distinguish the modalities by the primary purpose of collaboration, whether it's cost reduction or product development. Companies need different collaboration modes to fulfill various needs. Further, managers must pay careful attention to gauge their company's current and desired levels of collaboration intensity, then identify requirements for various approaches.

A change in corporate culture may be needed, as well. Managers must move away from a preoccupation with internal governance and examine new governance processes. As collaboration moves forward, managers will be consumed with issues of contracting, ownership of intellectual property, risk vs. rewards, the role of the nodal company, and, even more fundamentally, how value is created and shared among members of the network in an equitable and appropriate manner.

It's also critical for managers to recognize that the information infrastructure, with all its social and technical dimensions, is central to the new forms of collaboration. The ability to elicit tacit knowledge, and to collaborate across cultures and distances and multiple agendas, requires a technical infrastructure that can seamlessly handle structured and unstructured information, text, images, audio, video, and all sensory data. Successful experiences that foster further collaboration can be built only on infrastructures that allow for a positive total experience. Done right, collaboration will transform IT into a strategic capability--though it also may displace traditional IT perspectives and capabilities.

The next decade will be one of great possibilities for businesses that can simultaneously collaborate and compete. An understanding of the competitive imperative of collaboration and a willingness to tackle tough issues will drive businesses farther along the continuum. ♦

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