Don't Just Survive, But Thrive, in a Networked Economy

Transform Your Static Supply Chain into a Responsive Supply Network

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Certain trends today — from constantly changing environmental regulations to unforgiving demand and replenishment cycles — have necessitated a transformation in how businesses handle their demand and supply cycles. One of the biggest drivers of this is globalization — it empowers businesses to tap into emerging high-growth markets, leverage owned and outsourced manufacturing capacities in new regions, open up new channels, and create new opportunities.

Companies are already embracing these opportunities. Consider Tata Motors. This company's new Nano car, which costs consumers only US$2,500, is positioned to compete against the motorcycle market in India, where it is estimated that 120 million households will have discretionary income by 2010.

The opportunities globalization brings also increase the need for improved coordination and synchronization across widespread supply networks. To gain a foothold in the global marketplace, companies now have to further innovate the products they design and build, as well as the supply chains they use to deliver those products. All members of the network are looking for new ways to add value. For example, many logistics partners are providing end-of-runway services to customize their partners' products. They may attach a new lens to a camera, add a special logo to tennis shoes, or produce language-specific packaging — literally on the runway — all with the goal of adding value for the end customer.

The need for this supply chain transformation has become even more apparent in recent years, as the risks associated with global supply chains have increased. Take, for instance, the recent focus on product recalls that were attributed, in many cases, to outsourced manufacturers. In 2007, 17 million items were recalled for lead contamination alone.

Therefore, in this new, global environment, to continually exceed customer service targets, mitigate risks, and better serve your supply chain partners, you must be able to sense and respond faster and smarter to demand and supply dynamics. You must transform traditional supply chains into open, configurable, responsive supply networks.

The Challenges of Balancing Efficiency and Responsiveness

In the past, it was enough for a company to set up cost-effective, stable processes for its supply chain, which often left very little room for responsiveness to unforeseen events. Now, however, there is an increasing need for a company to put in place systems and processes that are able to flexibly respond to rapidly changing business conditions — a trend that has increased the amount of chaotic or ad hoc processes throughout the network.

Holding on to the traditional method of building efficient but somewhat inflexible processes means solving yesterday's business challenges, albeit at the lowest possible cost. On the other hand, responsiveness without efficiency allows you to act quickly, but inflates costs and disrupts core processes. The need to balance these two ideals — to intelligently sense *and* respond to changing market conditions and regulations — is why companies strive to be part of a responsive supply network. Supply chains are no longer enough: Supply networks are the new reality.

These networks require all participants — customers, suppliers, logistics providers, and other constituents — to sense changes in demand and supply conditions

Key Term: Responsive Supply Network

A **responsive supply network** allows companies with fluctuating demand and high product complexity to sense and respond faster and smarter to demand and supply dynamics across a globally distributed environment.

as they occur and to share the critical knowledge needed to respond intelligently to better meet customer needs. Successfully working as a networked environment results in a responsive supply network that is not only demand-driven, but that can even leverage its collective assets to influence demand. Even as I write this article, it's mind blowing to think of all the different companies from all corners of the globe that collaborated as a network to manufacture, ship, and assemble all of the components to make this one laptop that I am using.

How to Build and Be Part of a Responsive Supply Network

In theory, these principles may sound obvious. But you're likely asking: How exactly can I put a responsive supply network into practice? Of course, every company's core competency, breadth, and goals are different, so there is no one formula to becoming part of a successful supply network. But here are some tips that any company in any industry can follow to help them on their way.

Define Your Company's Role in the Network

In the past, the roles and responsibilities of each company within a supply chain were more or less static, and business processes were built around these predefined roles. Now, network roles are constantly evolving, and all participants have to work in concert to deliver value to the end customer.

To transform your supply chain into a responsive supply network, it's important not only to pinpoint what your precise role in that network is, but to determine how best to fulfill that role. At its core, a responsive supply network comprises two main roles:

- **Coordinator**: Coordinators act as a network's hub; they have the size and power to support multiple partners within their network. To be successful, coordinators must not only encourage their multiple partners to collaborate with each other, but also give them the means to make it easier to do so. For example, many companies today only share their demand data with the top 10% or 15% of their partners at best. Coordinators should open up avenues for all partners to be able to automatically and affordably access this information, allowing the entire network to work from the same data.

- **Partner**: Partner companies frequently do business with larger counterparts that are seeking to integrate their operations even more tightly. To bring value to the network and prove their worth to the network coordinator, partners need the lowest integration costs and the tightest collaboration. They must provide the most information, respond the fastest with the greatest accuracy, and quickly reconfigure when processes change or emergency conditions arise. By endeavoring to become the most agile and value-adding partner in a coordinator's network — by being the best partner to work with — a company can be more responsive and can support relationships with more networks than its less nimble competitors.
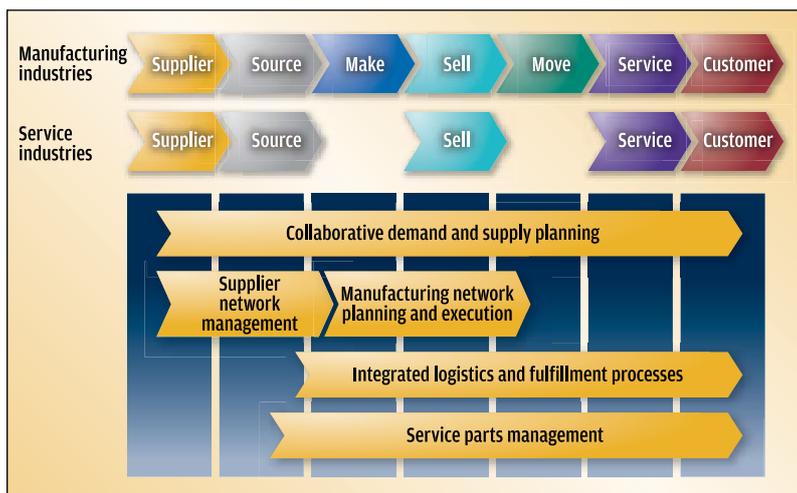
It's also important to note that, unlike companies in a static supply chain, companies involved in supply networks are usually part of multiple networks and may act in different roles within them.

Identify the Business Processes Your Company Must Excel In

Once you determine your role — or roles — in the network, the next step is to identify which end-to-end processes can best support you in this endeavor (see sidebar on page 24). Here I outline five such end-to-end business processes that highlight the needs of a responsive supply network (see **Figure 1**).[1]

Collaborative demand and supply planning: Organizations must be able to continuously sense and respond to changing customer demands, supplier delivery volatility, and operational disruptions across the entire network. Companies looking to optimize this process internally must focus on bringing

Manufacturing industries: Supplier | Source | Make | Sell | Move | Service | Customer

Service industries: Supplier | Source | Sell | Service | Customer

Collaborative demand and supply planning

Supplier network management | Manufacturing network planning and execution

Integrated logistics and fulfillment processes

Service parts management

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[1] For more information on the SCOR model on which SAP based these business processes, visit www.supply-chain.org.

together multiple departments to come up with an aligned sales and operations plan. To derive benefits across the business network, you must establish an integrated, collaborative, end-to-end planning process to drive supply strategies and tactics, synchronize supply activities, and mitigate supply risks. Doing so will improve demand visibility and forecast accuracy and increase customer satisfaction.

Manufacturing network planning and execution: In today's global environment where many companies have outsourced part or even all of their manufacturing capabilities, it is critical to have visibility and control across your network of manufacturing locations.

By delivering planning and execution functionality across all manufacturing facilities, both internal and outsourced, you can combine global coordination with local execution across the manufacturing network to ensure that your production plans are based on the latest demand data available. The result? Fast, cost-effective response to network demand changes, disruptions, or unanticipated economic events.

Integrated logistics and fulfillment processes: Ensuring integrated, end-to-end logistics and fulfillment processes allows companies to effectively and profitably source, store, and move goods to deliver the right product, in the right quantity, at the right time. The goal of delivering the perfect order, however, has to be balanced with the common goals of reducing network-wide inventory and logistics costs, improving asset utilization, and improving customer service levels.

Thus, logistics and fulfillment is not just about working individually as the warehouse, transportation, or sales department — it's about how the three of them can work together and communicate to better serve the customer and deliver the perfect order.

Service parts management: Across multiple industries, organizations are looking for ways to boost profits, reduce the cost of service and repair, avoid equipment downtime, and optimize the use of their assets. Achieving these goals requires integrated processes including order management, planning,

Key Questions Help Determine Which Process Is Most Important for Your Business to Improve

Companies looking to take full advantage of a responsive supply network need to look closely at several business processes. But which of these processes should your company focus on? While all of them are valuable, your company will likely find that optimizing one or two of the processes most central to the way you run your business will increase the value your company brings to — and receives from — its supply network.

To help you determine exactly which processes your company should focus on, consider these questions:

Collaborative demand and supply planning
- How many of my suppliers and customers do I automatically collaborate with today?
- How many different solutions and vendors do I work with to solve an end-to-end process?
- How many different departments are involved in each process in my organization? How do they collaborate with each other?

Manufacturing network planning and execution
- Do I have visibility across all of my plants to help me make the right decisions about where I should make a certain product to satisfy customer demand?
- What percentage of my manufacturing is outsourced? Am I confident that my manufacturers will deliver as promised?
- Do I have full visibility into the manufacturing process of all in-house and outsourced locations?

Integrated logistics and fulfillment processes
- Are my warehouse, transportation, and sales departments working together to better serve the customer and deliver the perfect order?
- Where should I store parts, intermediates, and products to optimize both my inventory and services?

Service parts management
- Do I have the right processes in place to ensure the right parts are available to fulfill customers' service demands?
- What percentage of my revenue is driven by after-sales services? What percentage of my profit?

Supplier network management
- Are the right metrics in place to evaluate suppliers' performance?
- Do I have risk mitigation in place to handle supplier issues?

If questions in a particular section are giving you pause — either you can't answer them or aren't happy with the answers you reach — then it's time to consider how your company can gain better control of that process.

SAP can help. With its industry experience, as well as the solution depth and breadth to address your business challenges, SAP is ready to help your company meet these process challenges head on.

and execution to ensure that you deliver the right parts to the right places in the network as soon as, or even before, they are needed. This reduces service and maintenance costs and increases reliability, availability, and return on network assets while improving customer service.

Supplier network management: To drive improved interaction and visibility across the supply network, it is critical to enhance collaboration across the entire procure-to-pay cycle, from purchasing execution, receiving, and invoicing through to payment status follow-up. Optimizing this process also involves setting up network-wide supplier performance metrics and KPIs regarding delivery performance, quality, and price compliance. Once you have identified the business process most critical to your company's role in the supply network, the next step is to look for technology that will support it.

Get the IT Support You Need to Make Your Responsive Supply Network a Reality

Traditionally, software vendors have delivered solutions that contain all the data on the operational and financial state of the company and that provide a foundation to efficiently plan and execute stable processes. The more adaptive, ad hoc business processes of the responsive supply network, however, transcend traditional three-letter acronym software boundaries. They draw on the services and functionality of transactional applications, as well as on services and processes from external partners or legacy systems, to deliver end-to-end business processes.

To better support the processes outlined above, and to help companies transform their supply networks, SAP is likewise transforming the way it provides the software and services you need to support these processes. By delivering this functionality as configurable business processes,[2] SAP is supporting both the efficient, stable processes that comprise your company's core, as well as the ad hoc cross-company processes resulting from the drive to respond better to change. SAP software supports this responsiveness by both extending transactional solutions and providing new functionality that leverages an enterprise SOA architecture.

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[2] To learn more about SAP's business process deliverables, please see the sidebar "SAP: Delivering Configurable Business Processes" in Rolf Weiland's article "Achieving Operational Excellence" in this July-September 2008 issue of *SAP Insider* (www.SAPinsideronline.com).

A Responsive Supply Network: Benefits at a Glance

- Become a truly demand-driven organization that responds quickly to customer signals
- Gain efficiency and reduce waste from increased visibility into the processes and operational state of both partners and suppliers
- Detect and leverage new revenue opportunities
- Leverage service as a value-added benefit and a competitive differentiator
- Maximize return on production assets by minimizing downtime, improving equipment reliability and throughput, and extending the life of assets
- Increase the capital allocated to core value-creating activities while outsourcing other processes

Summary and Conclusions

Companies in today's competitive environment want to increase both their efficiency and adaptability. Having long been successful in improving efficiency, SAP is now applying its more than 35 years of business and IT experience to help companies expand their adaptability and responsiveness. Through these end-to-end business processes, SAP is supporting companies' drive to be part of a responsive supply network.

The responsive supply network is an ideal model for improving modern business relationships. A company that has methodically prepared to participate in a responsive supply network is better able to create win-win relationships with partners and suppliers that will provide better products and services to customers — and reap rewards for all network members.

We have long known that businesses cannot survive as islands. But now we're finding that even the most efficient processes in an inflexible supply chain are not enough. Companies' fortunes will now rise or fall based on how well they adapt to change, and how well they work within a responsive supply network. ◻

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AdditionalResources...

...from **SAP**insider ✚

- "SAP Supply Chain Planning," an *SAP Insider* Multimedia Training CD (**www.SAPinsider multimedia.com/products/SCP**)
- The **Business Process Management 2008** conference in Las Vegas, November 17-19, 2008 (**www.sapbpm2008.com**)
- The **Logistics and Supply Chain Management 2009** conference in Orlando, March 2-4, 2009 (**www.sapscm2009.com**)