

# Supply Chain and IT Strategies Must Align Around Five Key Themes

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**Effective supply chain management (SCM) requires the synchronization of technology strategies with business objectives. Gartner identifies the five key areas where IT should coordinate with the business to enable the two-way information flow needed to establish a shared supply chain technology strategy.**

## Key Findings

- Supply chain strategies are shifting their focus from cost/efficiency objectives to customer service, business agility and support for strategic business initiatives, such as “green” supply chains or supporting new business models.
- Many IT organizations have not revisited the relationship between IT and the supply chain organization to support these changing enterprise objectives.
- Enterprises should focus on five technology areas – business process agility, data management, analytics and performance management, collaboration and sensory networks – as the sources of technology-enabled supply chain innovation.

## Recommendations

- Engage your supply chain organization (supply chain, operations, manufacturing, supply chain development and logistics executives) in a discussion around these five key areas. Focusing on these technology areas will give the IT organization more credibility as an ongoing participant in the dialogue.
- Arrange a periodic demonstration of new technology capabilities, coupled with the co-development of supply chain initiatives, as new capabilities arise in these areas.
- Develop a plan for incorporating the new infrastructure components that are needed to support these innovation areas.
- Evaluate your supply chain IT strategies and SCM vendor-sourcing criteria with the supply chain organization for conformance and alignment based on the five key themes and related discussions. Adjust your IT and sourcing strategies to address perceived gaps.

## ANALYSIS

To deliver leading SCM capabilities, enterprises must align supply chain technologies with business processes and strategies. Since 2001, Gartner has found that operating-cost reduction is the most-cited supply chain objective. However, this is starting to change with customer service, competitive business value and innovation objectives becoming more commonplace.

As companies continue to globalize and diversify their business strategies (for example, expanding services and products and expanding into developing economies), they need more from their supply chain technologies. Many supply chain technology strategies are focused on applying best practices within recognized disciplines, such as demand planning or warehouse management. This drives the focus toward supporting packaged applications and upgrading to take advantage of new features, which encompass existing best practices.

To support supply chain leadership, enterprises must exploit new technologies selectively. Harvesting emerging technologies for competitive advantages can come only from a robust co-development relationship between the supply chain organization and the IT organization. This dialogue requires that IT shift its focus to what really matters to the business. Modernizing applications is a necessary prerequisite for many technologies outlined in this research. However, companies can't justify this modernization on the basis of cost reduction alone – the business must understand how it can leverage the new capabilities to support competitive advantages, thereby opening up other sources of benefit to justify the modernization program.

Gartner has identified that the next level of supply chain excellence will come from an organization's ability to develop a chaos-tolerant dimension within its operations. Gartner believes that by discussing the technologies that are relevant to these capabilities, IT can gain credibility with the business and can co-develop the right technologies for supply chain leadership.

## 1. Business Process Agility and Adaptability

Increasing pressure will come from supply chain executives who recognize the importance of process agility in delivering competitive advantages within an increasingly complex and chaotic operating environment. Applications traditionally have been functionally focused, not process-focused. Additionally, the high cost of changing inherent workflows within and integration among applications has prevented supply chain organizations from delivering the capabilities necessary to support the business as it tries to compete in highly volatile, competitive global markets. Of necessity, process changes had to be made outside the application (often involving supply chain personnel), thus reducing organizational efficiency. The ability to assemble, disassemble and reassemble aspects of functionality, incorporate workflows and integrate to key data to support a business process will become critical in supply chain projects.

To support these strategies, most SCM vendors are re-architecting their applications to be service-oriented in some form. This breaking down of previously highly integrated applications into business services is a good step on the road to agility. However, Gartner believes that leveraging service-orientated architectures (SOAs) within the framework of a business process platform (BPP) will enable more-effective componentization and composition of business services in support of delivering innovation and process agility.

Key elements of a BPP will include the availability and storage of business services; the ability to reconcile master data across multiple sources; and the ability to combine business services, data and business process management capabilities into composite applications that support certain business processes. However, the quality of service orientation will vary from vendor to vendor, and this will affect the ability of the enterprise to achieve agility from SOA.

Another critical aspect of the BPP will be support for the ERP-based ecosystem by partners that can interoperate with the platform. The IT organization and the business should discuss the strategic importance of these IT decisions and should use the supply chain strategy road map to decide how the BPP should evolve. IT should show the business how the ecosystem-based approaches of ERP-backbone vendors will affect the enterprise's ability to source or build necessary functionality from the ecosystem. This discussion likely will highlight the gaps in the ecosystem strategies of preferred vendors and can help IT focus on building the right sourcing strategies.

## 2. Data Management

As the need for supply chain processes to span varied application areas grows, the need for a semantically reconciled data layer under the new processes becomes paramount. Gartner sees the development of an enterprise information management strategy as key to supporting evolving supply chain processes. Given the scope of enterprise information management (EIM), Gartner expects the focus for the next five years to be on master data management as master data is published, enriched and consumed across the value chain.

IT must engage the supply chain organization to understand how data across different applications – for example, CRM, ERP, supply chain planning (SCP) and warehouse management systems (WMSs) – must be managed in support of new supply chain business processes. As the supply chain organization considers its internal supply chain, it must get a common view of key data fields. This requirement becomes more acute as the supply chain organization looks outside the company for collaboration opportunities with customers and suppliers. IT can demonstrate to the business how a proactive master data management strategy can assist in supporting the evolution of new business processes and how this will shorten the implementation time scales of these processes.

Missing or poor-quality data is one of the most common causes of missed SCM-implementation deadlines. This dialogue can shift the focus from traditional static integration among applications to a more dynamic, process-focused capability the business can leverage for value generation across the supply chain.

### 3. Supply Chain Analytics and Performance Management

Performance management plays a crucial role in SCM. Understanding the behavior and performance of the supply chain is a strategic necessity. Supply chain organizations increasingly will seek a combination of business application analytics (how the current process is working) with business intelligence (BI) analytics (the root causes of the symptoms visible in the supply chain) to understand the dynamics of their operations. If, for example, a supply chain organization is pursuing cost reductions, then it must understand the root causes that influence the significant cost drivers in its business sector.

This may mean developing activity-based, costing-style approaches that can be reconciled to the varied operational activities to understand what is driving cost through the end-to-end supply chain. If the supply chain organization is pursuing competitive advantages, then it must understand what is driving supply chain performance and how that performance is being driven. This will involve the development of significant analytics capabilities.

The convergence of analytics and SCM business processes first emerged in demand-planning systems and is re-emerging with inventory strategy optimization solutions that are just beginning to help enterprises align their segmented supply chain response strategies to customer and channel segmentation strategies.

The IT organization must reconcile the analytics road maps of its business application and BI vendors with the process road maps of the business. Through co-development, IT can agree with the business on a supply chain analytics approach that meets the needs of the business. Part of this dialogue will revolve around the degree of analytical support needed for operational processes (and how it maps to the organizational structure and to corporate performance management initiatives) and around how much is needed for supply chain development functions (in support of root-cause analysis and supply chain design input).

### 4. Supply Chain Collaboration

SCM has moved from the integration and management of internal functions to key external partners, and increasingly toward the permanent and transient members of the supply chain ecosystems in which the company will be operating. The concept of supply chain collaboration has evolved into the competencies of developing and managing multienterprise business processes. Companies that collaborate (for example, share purchase order visibility, forecasts or planned replenishment orders) should examine how to leverage visibility in a compelling business sense. The value of the data is in how it is used within the context of a multienterprise business process. Vendor-managed inventory (VMI) is a good example of leveraging simple inventory visibility within a continuous replenishment process across supply chain partners. The business value flows not from the inventory and demand visibility but from the effective inventory management process built on this visibility.

Enterprise-centric supply chain applications make the challenge of managing multienterprise processes nearly impossible, because they tend to focus on transaction life cycles (which are difficult to manage across multiple enterprises) and not on decision making, process monitoring and event-based execution disciplines, which will be essential for managing end-to-end processes.

The IT organization must discuss with the business where it sees supply chain collaboration supporting the supply chain strategy. This dialogue will help delineate between transaction and process-enabling collaboration, and internal vs. external collaboration. If IT can show the different degrees to which multienterprise business processes can be supported by leveraging collaboration, process management and data management technologies, then IT can demonstrate value-creation opportunities for the business with appropriate technology-sourcing strategies in place.

## 5. Sensory Networks

As the scope of the supply chain extends beyond the “four walls” of the enterprise, driven in part by globalization and virtualization, the deployment of sensory networks to help the organization sense the condition of the extended supply chain will become a key plank in a chaos-tolerant supply chain strategy. A sensory network can be defined as a group of IT-based sensing technologies that provides real-time visibility of events and facilitates the management of and ongoing analysis across the extended supply chain. Sensing technology can take the form of bar codes, radio frequency identification, GPS and wireless.

The IT organization must work with the business to understand how and where sensory networks likely will be leveraged and how the business sees sensory networks in underpinning new and revolutionary business processes. Work with the supply chain organization to identify the potential uses of sensory networks. From this relationship, develop an infrastructure blueprint that can support potentially disparate sensory network deployments. Demonstrate to the business what level of sensory network capability SCM technology vendors can support and how this relates to current and future business requirements. This dialogue will help provide segmentation between tactical and strategic sensory requirements and will shed light on the potential value proposition of technology to the business in support of return on investment assessments.

### What You Need to Know

The dynamics of the IT-business relationship must change to support evolving supply chain strategies. The business needs support in determining where the five key supply chain technologies can support business strategies. The IT organization must engage the business around where these technologies can alter the value-cost profile of technology investments and can justify the modernization of applications.

Based on the outcome of these discussions, IT must compare the five key technology themes to relevant vendor evaluations and road maps to enable the supply chain technology strategy to align with the business strategy.