Six Key Trends Changing Supply Chain Management Today
Choosing the optimal strategy for your business
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Executive Overview

As companies increasingly use their supply chain to compete and gain market share, spending and activity in this area are notably on the upswing. Technology and process upgrades at forward-thinking companies clearly show that supply chain excellence is more widely accepted as an element of overall business strategy and that increasing value to customers is not just management’s, but everyone’s business.

The shift in how companies view their supply chain is taking hold. Examine how your company views its supply chain and consider your answers to these basic questions.

*Does leadership view your supply chain as a strategic competitive advantage? If not, are you considering outsourcing your supply chain?*

*Are the capacity strengths of your supply chain commonly known and understood by leadership of the company? If so, how do they impact growth, profitability and customer service?*

Hitachi Consulting works closely with leading manufacturing and distribution companies and helps them address their business challenges. From our experience working with key companies in food and beverage, consumer products, high tech and industrial manufacturing, there are six key trends causing significant impact and change to supply chain design and performance:

- **Trend 1 – Demand planning**
- **Trend 2 – Globalization**
- **Trend 3 – Increased competition and price pressures**
- **Trend 4 – Outsourcing**
- **Trend 5 – Shortened and more complex product life cycles**
- **Trend 6 – Closer integration and collaboration with suppliers**

**Trend 1 – Demand Planning Sets the Tone**

As sources and capacities for manufacturing have increased, more companies have moved away from focusing efforts on plant-level production planning and are adopting more of a demand-driven focus of trying to influence and manage demand more efficiently. Rationalizing what you are best at selling, making and delivering, and aligning the sales force with that mindset, is critical to adopting a demand-driven model. The demand-driven approach can help a company create a more customer-focused mindset, without sacrificing operational efficiency. Ultimately a demand-focused approach to planning can significantly improve demand planning and management efforts and help overall costs and customer service efforts.

Advanced demand planning systems and proper strategies can also help uncover data and identify trends buried in a company’s information systems. We encourage companies to conduct an enterprise-wide internal Demand Review to gather information from all aspects of the organization.
Goals are then set to gain consensus on what will be sold each month for each product line or category and the resulting revenue. Of course, the driver of the Demand Review process is continuous improvement of forecast accuracy.

Critical to the success of any Demand Plan is having all stakeholders, including sales, marketing, finance, product development and supply chain agree upon a consensus Demand Plan. It is important for all participants to discuss factors affecting customer demand patterns, such as new or deleted products, competitors or market conditions, the aggregate demand plans and associated revenue plans. Once all demand for products and services is recognized, the information is consolidated into one Demand Plan.

Demand Planning is a key input to the larger Sales and Operations Planning process and can have a significant positive impact on new product introductions, inventory planning and management, customer service, supply planning efficiency and sourcing strategies. With our clients, we have often seen that Demand Planning success is often tied to organizational structure. We have found that companies with dedicated resources focused around demand planning and forecasting yield stronger results and drive more value to their company. Organizations that focus part time on demand planning and forecasting efforts yield substandard results. With the strategic importance of Demand Planning, companies need to be committed to this from both a resource and technology perspective.

For more information and success stories on S&OP and Demand Planning, search key words in the Knowledge & Success area at www.hitachiconsulting.com.

Trend 2 – Globalization

The business landscape is rapidly becoming more global. Largely due to improvements in communications, globalization is dramatically impacting the way business is managed and transacted, even on the most local levels. No area of a business is affected more by the trend to a global business environment than the supply chain. Manufacturing, distribution, sourcing of materials, invoicing and returns have all been significantly impacted by the increased integration of a global customer and supplier base, and many companies find that existing processes and technology are not flexible enough for this new business environment.

For example, historically, many companies have brought in container shipments from Asia Pacific through the ports in southern California. As the volume of container shipments has increased, all of these ports have experienced capacity issues relating to customs clearance and transshipping. As a result, some companies are contemplating rerouting these inbound shipments to alternate ports. This change may seem subtle, but a shift in logistics of this magnitude has far-reaching effects on the overall cost and efficiency of the supply chain network. Dynamically repositioning the point of entry for inbound container shipments can have a positive impact on customs
clearance times and access to increased transportation capacity, however there can be a negative impact as well. Better understanding the total landed cost and service implications of alternate ports of entry can help improve supply chain costs and performance.

The right Supply Chain Design is critical to managing the changes brought about by rapid globalization. A well thought-out Supply Chain Network Design can optimize the network and the flow of materials through the network. In doing so, network design captures the costs of the supply chain with a “total landed cost” perspective, and applies advanced mathematical technology to determine optimal answers to both strategic and tactical questions.

Strategic questions answered by a well thought-out network design:

• Where should facilities be located?
• How many facilities should I have and what capabilities should they have?
• What kind of capacity should they have?
• What products and services should they handle?
• Whose manufacturing and distribution orbit should they source?
• Which contract packers or contract manufacturers should I use?
• How can I achieve operations synergies through integrating acquisitions?

For more information and success stories on Network Design search key words in the Knowledge & Success area at www.hitachiconsulting.com.

Trend 3 – Increased Competition and Price Pressures

Historically, price, product features and brand recognition were enough to differentiate many products in the marketplace. With the continued commoditization of many products, companies need better ways to distinguish themselves. In one case, a large global consumer goods manufacturer saw prices around some of its commodity products drop as much as 60-80 percent. Product innovation and brand equity no longer were allowing them to command a higher price in the market. In order to continue to compete with that commoditized product they made significant cost improvements with supply chain re-design and technology.

Companies are looking to their supply chains in two ways to help offset this trend. First, they are looking at ways to reduce cost and are creating a more efficient value chain to remain cost competitive. Second, companies are looking at ways they can provide value-added services to meet the demands of more sophisticated customers.
Cost improvements around inventory management, logistics operations, material management and manufacturing costs, including raw material and component acquisition can be found with:

- Sales and operations planning
- Transportation/distribution management
- Improved product lifecycle management
- Improved strategic sourcing and procurement

Suppliers can differentiate themselves in a number of ways as well as provide value, additional services and capabilities to their customers. The differentiating factors include:

- Vendor Managed Inventory (VMI)
- RFID
- Labeling and packaging
- Drop shipping
- Collaboration

Companies should not only look to their supply chain to drive cost improvement, but should increase capabilities as a means for staying competitive. Streamlining processes with better design, better collaboration across networks and new services will help your company stay competitive and strengthen relationships with your customers.

Trend 4 – Outsourcing

As many companies step back and examine their core competencies, some realize that outsourcing parts or all of a supply chain can be advantageous. With marketplace improvements around (1) information media and systems (2) cost and quality of global manufacturing and distribution, and (3) product design capabilities, companies are gaining additional synergies by outsourcing all or parts of their supply chain.

There can be significant economic benefits from outsourcing all or part of your supply chain operation, but without the right systems, processes, or organizational management structure the risk to success can increase to frightening levels. In an outsource-heavy environment companies need to put more controls and systems in place to compensate for the fact that their supply chain capabilities no longer reside onsite. In an outsourced supply chain environment the need for information, controls and excellence from the “information worker” becomes a high priority.
The optimally outsourced supply chain, either in its entirety or just a component, relies heavily on:

(1) Superior supply chain network design
(2) Inclusion of that outsource partner in the information chain
(3) Establishment of control mechanisms to proactively monitor the various components of the supply chain and,
(4) Information systems to connect and coordinate the supply chain as seamlessly as possible.

A failure to excel at any one of these components can result in breakdowns affecting the entire supply chain.

Trend 5 – Shortened and More Complex Product Life Cycles

Today many of our clients are under pressure to develop innovative products and bring them to market more rapidly, while minimizing cannibalization of existing products, which are still in high demand. In order to meet the needs of both customers and consumers, companies need more efficient product lifecycle management processes. This includes heavy emphasis on managing new product introduction, product discontinuation, design for manufacturability and leveraging across their entire product and infrastructure characteristics.

One chief benefit of PLM processes and technology is helping companies design products that can share common operations, components or materials with other products, thereby reducing risks of obsolescence writeoffs, increasing cost leverage on the purchasing of key materials and ensuring that infrastructure investments are optimally utilized. Additionally, getting this right will help to improve your time to market. By focusing product lifecycle management efforts in these areas, a company can buffer itself against the risk of an unplanned cost increase, a poor new product launch, an unplanned obsolescence writeoff and can enhance the overall customer perception of the company as an effective innovator.
Typically when companies begin the process of introducing new products to market, they coordinate marketing, engineering, sales and procurement and develop sales forecasts to plan products in the pipeline. Without a formalized product lifecycle process the end result isn’t always predictable. Recently, a US-based major appliance manufacturer, struggling with sky-rocketing product development costs and a cumbersome, manual development process, was looking to implement a PLM initiative to help reduce the cycle time between development and entry to market. While implementing a new PLM environment the company designed innovative, common product development processes and selected a PLM solution to control engineering document management, online mark-up and web-based collaboration with suppliers and contract manufacturers.

As a result, the company increased parts re-use, improved document retrieval time, reduced design cycle time, and ultimately reduced new product development cost by 15 percent. These improvements helped the company grow revenue by 25 percent, mainly from an increased rate of product introductions.

As the economy becomes more global, labeling and compliance to packaging requirements and regulations have become critical to success. Without adherence to local packaging and labeling regulations a product may violate local requirements, preventing it from being distributed and sold in that market. Product lifecycle management technology and processes can help ensure that products being produced and targeted for specific markets are well-managed and are compliant. Product lifecycle management tools and processes have helped consumer goods companies with their efforts to try to continually drive demand through packaging and labeling innovation and design. Implementation of an optimal PLM process and technology can allow a consumer goods company to effectively produce and distribute products that are only targeted for regional promotions or consumer preferences.

For more information and success stories on PLM search key words in the Knowledge & Success area at www.hitachiconsulting.com.

Trend 6 – Collaboration Between Stakeholders in the Extended Supply Chain

As supply chains continue to develop and mature, a move toward more intense collaboration between customers and suppliers has occurred. The level of collaboration goes beyond linking information systems to fully integrating business processes and organization structures across companies that comprise the full value chain. The ultimate goal of collaboration is to increase visibility throughout the value chain in an effort to make better management decisions and to ultimately decrease value chain costs. With the right tools, processes and organizational structure in place, collaboration provides key people throughout the value chain with the information needed to make business-critical decisions with the best available information.
Recent examples of collaboration have emerged in the expansion of Sales and Operations Planning (S&OP) processes that include upstream and downstream value chain partners as regular participants. S&OP processes help maintain a well-coordinated and valid, current operating plan in support of customer demand, a business plan and a strategy. The improved resulting operating plan provides the management of each partner with a complete picture of forecasted demand, supply capacity, corresponding financial information with financial implications and allows them to make informed, critical decisions.

Companies that expand the usage of Sales and Operations Planning have greater visibility across their own enterprise and respective value chain, gain the agility necessary to improve the Product Lifecycle Management (PLM) process, improve promotional planning, minimize unnecessary buildups of inventory, increase revenue predictability and execute customer service expectations.

The S&OP activity enables information systems to connect the value chain participants around key demand information, such as customer forecasts, and around key supply information, such as supplier inventories and capacities.

Another recent example of collaboration is seen in the increased focus around RFID (Radio Frequency Identification). Value chain leaders are looking at functional areas to better integrate the supply chains of their partners with themselves. RFID can serve as a means to quickly and efficiently ensure that critical product information is communicated as products flow through the value chain and ultimately to the consumer.

Recent estimates show that major retailers can lose 3-4 percent of revenue per year due to shelf stock outs, while inventory is available somewhere in the value chain. Better coordination of store-level product availability would have a significant impact to the entire value chain for these retailers. Additionally, better visibility of retailer product availability can reduce overall logistics costs as products move through the value chain to fulfill safe stock levels and ultimately consumer demand.

**The Role of Technology in Supporting these Trends**

As supply chain networks have become more complex, the need for greater and improved supply chain technology solutions has become critical. Enterprise Resource Planning (ERP) and best-of-breed Supply Chain Management (SCM) solution providers have made significant investments in developing solutions to address the needs of manufacturing and distribution companies in areas, such as:

- Network and Inventory Optimization
- Product Lifecycle Management
- Sales and Operations Planning
- Manufacturing Optimization
- Logistics Optimization
- RFID
- Procurement
- Business Intelligence
These technologies have helped enable the supply chain “information worker” innovate, drive cost reductions, improve service and meet customer expectations better than ever. In order to have sustainable improvement in supply chain performance, a business must have the right balance of investments in organization, processes and technology. Lack of investment and focus in any one of these areas will reduce your ability to achieve fundamental, sustainable improvement.

For more information and Supply Chain Technology and Strategy search key words in the Knowledge & Success area at www.hitachiconsulting.com.

**Conclusion**

Developing, manufacturing and selling a product can challenge the best organizations in the best of times. As a company’s business drivers change, business processes, SCM technology investment and the overall approach to supply chain management must change and keep pace. An inefficient and poorly functioning supply chain can negatively impact every aspect of an organization, jeopardizing the long-term performance and success of a business.

To remain successful companies need organization-wide buy-in to supply chain excellence and some will need to re-evaluate their current processes and performance with these key trends in mind:

- Demand Planning as an imperative
- Globalization
- Increased competition and price pressures
- Outsourcing
- Shortened and more complex product life cycles
- Collaboration between stakeholders

Companies that reevaluate their business and how the current supply chain structure supports the business—from a strategy, process, technology and organizational perspective—must focus on keeping their supply chain aligned with the overall business strategy. To succeed, companies must embrace Supply Chain Excellence as a core competency at all levels throughout the company and recognize that supply chain management is executed in many areas, not just the functional supply chain organization.

Learn more about the how leading companies are innovating their supply chain in the Knowledge and Success area at www.hitachiconsulting.com.
About Hitachi Consulting

As Hitachi, Ltd.’s (NYSE: HIT) global consulting company, Hitachi Consulting is a recognized leader in delivering proven business and IT solutions to Global 2000 companies with a balanced view of strategy, people, process and technology, we work with companies to understand their unique business needs, and to develop and implement practical business strategies and technology solutions.

Hitachi Consulting’s client base includes nearly 25 percent of the Global 100 many leading mid-market companies. From business strategy development through application deployment, we help clients quickly realize measurable business value and achieve sustainable ROI.

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Hitachi, Ltd. (NYSE: HIT / TSE: 6501), headquartered in Tokyo, Japan, is a leading global electronics company with approximately 400,000 employees worldwide. Fiscal 2008 (ended March 31, 2009) consolidated revenues totaled 10,000 billion yen ($102.0 billion). The company offers a wide range of systems, products and services in market sectors including information systems, electronic devices, power and industrial systems, consumer products, materials, logistics and financial services. For more information on Hitachi, please visit the company’s website at http://www.hitachi.com.