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In Search of Supply Chain Excellence

With the global recession abating, companies can and should implement strategies that provide immediate and sustainable value to their supply chains.

Here are some useful pointers on how to create supply chains that are more agile, adaptive and business-aligned.

One of the more daunting challenges faced by companies across industries is to efficiently manage their supply chains, while still meeting the needs of their customers and business partners. Supply chains are extremely complex and unforgiving entities, making the job of managing them a challenging proposition, even under optimal business conditions.

Consider the impacts of a prolonged global economic downturn and a rash of unpredictable natural disasters and geopolitical hot spots, and many companies face the “perfect storm” in supply chain management. Some have become so overwhelmed by the challenges imposed by the current business environment that they have forgone any attempt at supply chain management and instead are focused on supply chain survival.

Just as some companies are struggling with their supply chains, others have adapted to fit the new global realities. Even companies competing in the same industry have vastly different supply chain success stories, leaving many executives to ask, “Why aren’t we a supply-chain-competitive company?”

The Dangers of Being Fast and Efficient

The reason some companies aren’t supply chain competitive is that they have placed far too much focus on low cost and high speed, according to Dr. Hau Lee, the Thoma Professor of Operations, Information and Technology, at the Stanford Graduate School of Business, in his groundbreaking research of 60 leading companies.¹ Companies with low-cost, high-speed supply chains have historically failed to gain a sustained competitive advantage over their rivals because they are not able to respond to unexpected changes in and challenges to their demand or supply, Dr. Lee contends.

Furthermore, Dr. Lee’s research also identifies certain companies that appear to have established “bullet-proof” strategies relative to their supply chains, thus leading them to achieve a sustained competitive advantage. These companies’ supply chains are not just low-cost and high-speed, but, most importantly, they also have the characteristics of “Triple-A Supply Chain” (see Figure 1), a term coined by Dr. Lee. These characteristics include:

- **Agility.** They are designed to respond quickly to sudden changes in supply or demand. They handle unexpected external disruptions smoothly and cost-efficiently. Additionally, they recover more quickly from shocks such as natural disasters, product recalls and economic turmoil.
- **Adaptability.** They are built to evolve over time as markets are reshaped by such forces as economic growth and contraction, political shifts, demographic trends and technological advances.
- **Alignment.** They are envisioned to ally the interests of all participants in the supply chain with their own. As each partner maximizes his own interests, the supply chain’s performance is optimized, as well.

Completing a Triple Play

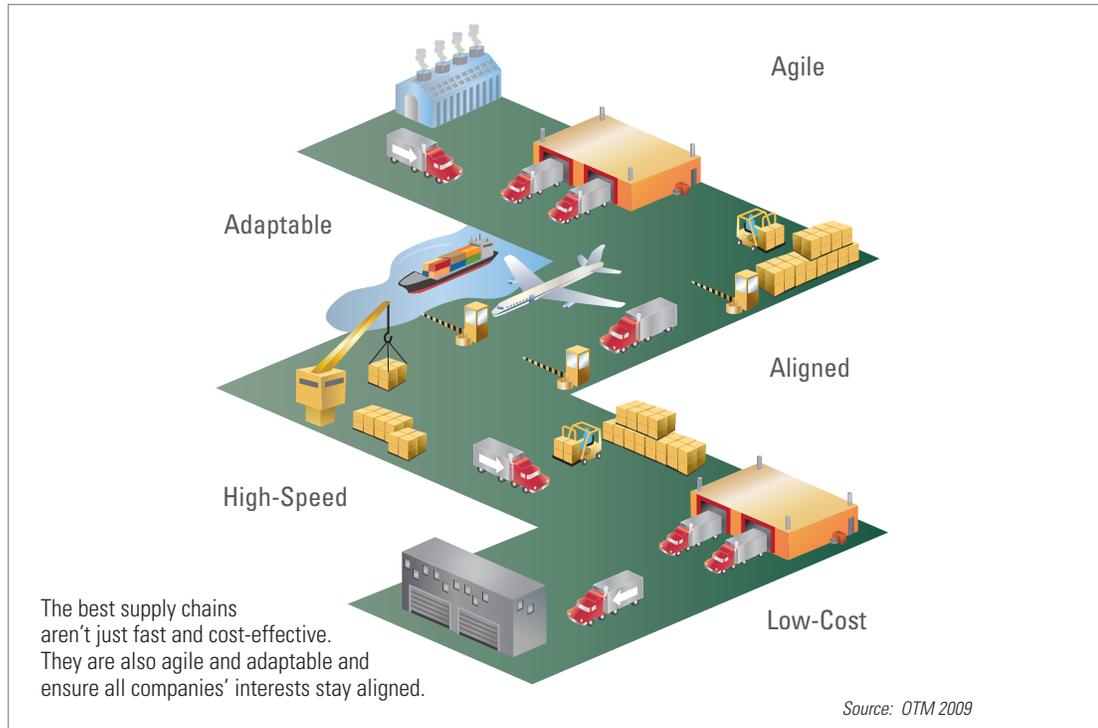


FIGURE 1

Regardless of business conditions, companies can and should implement supply chain strategies that provide immediate and sustainable value to their shareholders. Companies risk their supply chain survival by attempting to time the next cataclysmic business, natural or geopolitical event. Therefore, if they have not already begun, companies would be wise to begin exploring "Triple-A Supply Chain" strategies that could well be the key differentiator in keeping them ahead of the competition.

Achieving Agility

The importance of having an agile supply chain is reinforced by the unpredictable outbreak of geopolitical tensions, natural disasters and product recalls that have proliferated over the last few years. Great companies create supply chains that respond to these types of sudden and unexpected changes.

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Agility is also critical, because, in most industries, both demand and supply fluctuate more rapidly and widely than ever before. Most supply chains cope by playing speed against costs, but agile supply chains respond both quickly and cost effectively.

To clarify, agility is the ability to act vs. react. When a hurricane strikes, all supply chains in its path must alter their daily routines to adjust to the impact on customer needs. For example, Walmart is a company that has acted prudently in preparing for hurricanes. It maintains a laser-like focus on weather conditions around the globe, analyzing point-of-sale data to ascertain which items sold more frequently in past hurricanes and then trucking in those extra items to stores to meet customer demand. It also pre-positions trailers loaded with items such as water and food that can be distributed easily. Walmart's ability to act quickly is directly related to its agile supply chain.

Becoming Adaptable

In addition to short-term fluctuations in supply and demand and compressed product lifecycles, markets themselves are constantly changing more rapidly than before, especially with the expanding global economy. Supply chain strategies and networks that once served a company well can soon become obsolete as market shifts occur.

To create an adaptable supply chain, Dr. Lee suggests companies should:

- Closely monitor global supply chain economics.
- Outsource more where possible, as outsourcing can enable more rapid adaptability.
- Understand completely the impact that new product design has on the supply chain.
- Build different supply chains for specific market and product characteristics.
- Understand the impact and benefits of adopting new paradigms, like Green Supply Chain, to drive benefits across the supply chain.

Creating Alignment

Supply chain alignment can only be achieved through strong leadership and a well-crafted supply chain strategy. Effective leaders understand the importance of identifying the role each partner plays in the supply chain and then creating an environment that embraces collaboration among these partners. Collaboration is essential in fostering a sense of shared responsibility that enables the supply chain to operate at peak efficiency across all performance drivers, including:

- Facilities
- Inventory
- Transportation
- Information

Once a collaborative environment is established, companies and their partners can cooperatively build an overall supply chain strategy. With expanding global supply chains, companies that choose not to include supply chain partners in their strategic initiatives do so at their own peril. Companies should foster supply chain alignment with their business partners based on shared core values. These include:

- Information exchange: Share data and knowledge freely with partners, vendors and customers.
- Clarity in process and task ownership: Identify roles, tasks and responsibilities clearly for all stakeholders involved.
- Equitably share risks, costs and gains of improvement initiatives.

Making it Happen

Although not easy, achieving supply chain excellence is possible for any company that is willing to invest in the process. The time to begin is now.

As a first step, companies should ask themselves the following questions before embarking on a supply chain transformation:

1. Do we have internal resources with the required expertise to design and implement a supply chain transformation?
2. What technology enablement will be required?
3. What should I measure, and how do I baseline my current supply chain performance?
4. How do we define what constitutes an optimal supply chain for our business and industry?
5. How do we identify additional opportunities to reduce our costs?
6. Do we have strong enough relationships with our vendors and customers to foster their engagement and collaboration?
7. Once we have designed an optimal supply chain, how do we maximize its capabilities and sustain its performance across the business enterprise?

Building Models

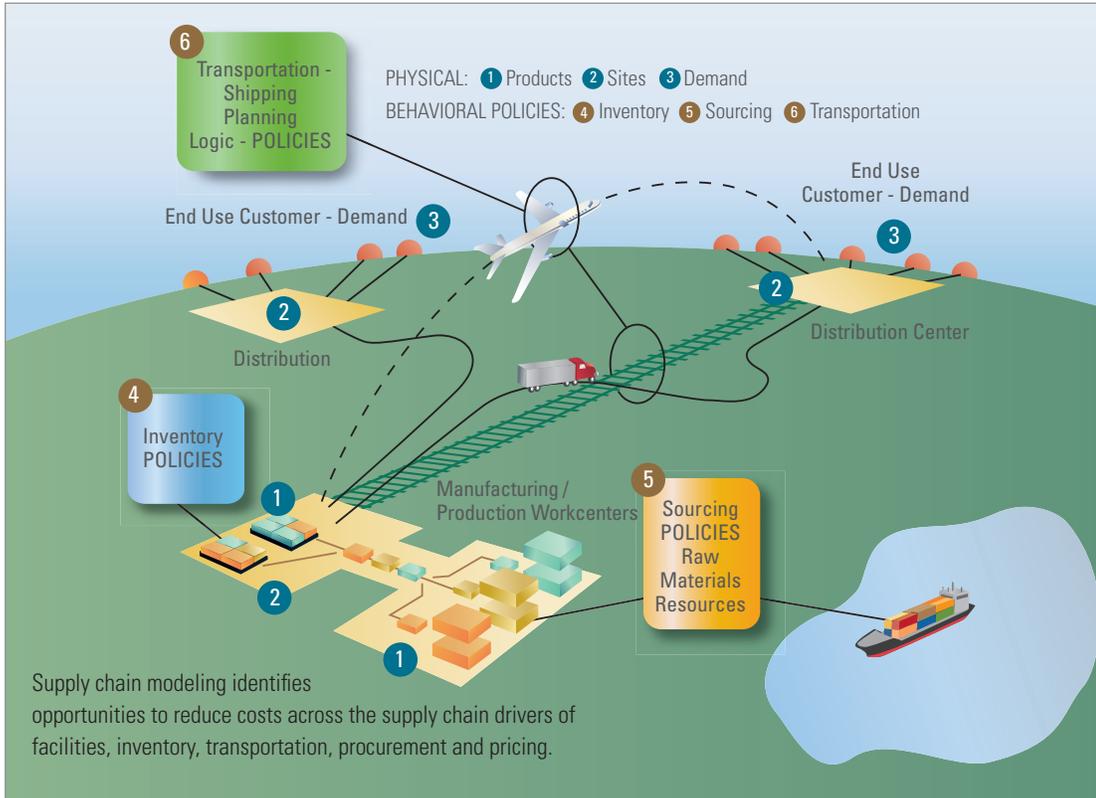


FIGURE 2

Resolving these questions is crucial due to the difficulty of enabling a supply chain transformation. Many companies come to realize that undertaking such an effort is beyond their capabilities. These companies seek the assistance of partners, such as consulting firms or third-party logistics companies (3PLs), to provide supply chain expertise across process, people and technology.

For example, companies may need a partner that can immediately identify specific links in the supply chain that can be improved through various diagnostic and assessment methodologies. This can build a sense of confidence that all aspects and drivers of a supply chain overhaul have been considered.

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Another advantage for companies that solicit the services of a consulting firm or 3PL is the access they provide to software and other technologies to support their supply chain transformation efforts, such as supply chain modeling and execution tools. Modeling the supply chain provides a clear understanding of baseline supply chain costs and configuration. It also provides output identifying a "to be" supply chain configuration, balancing the lowest costs with the highest throughput (see Figure 2).

As companies often do not have a true appreciation of the operational complexities and costs of running their supply chains, in-depth supply chain modeling and analysis can provide many "aha" moments. Supply chain modeling focuses on two core areas: supply chain design and supply chain execution. Supply chain design is the process of determining the supply chain network and infrastructure -- the plants, distribution centers, transportation modes and lanes, production processes and so forth that will satisfy customer demands. Supply chain execution is the process of determining solutions to more tactical issues, such as local inventory policies and deployment, manufacturing and service schedules and transportation plans.

Supply Chain Excellence Deconstructed

To build agility into the supply chain, world-renowned expert Dr. Hau Lee of the Stanford Graduate School of Business recommends that companies adhere to the following six rules of thumb:

1. Improve connections with partners to share changes in supply and demand more quickly.
2. Improve collaboration with suppliers on product design.
3. Increase use of postponement strategies to delay adding value or differentiation as late as possible in the supply chain process.
4. "Bulk up" a bit more on small, inexpensive components that often cause supply chain bottlenecks.
5. Build more flexibility into logistics systems that can react to disruptions, using third parties as appropriate.
6. Build a small team that is skilled in enacting contingency and back-up plans.

Regardless of the depth of modeling utilized, all supply chain design exercises, large or small, involve an enormous amount of data collection, analysis and "as-is" and "to-be" process mapping across all areas of the supply chain. This is vital to the success of the transformation.

When incorporated within an approach that considers all supply chain aspects and drivers, the results from supply chain modeling provide the starting point from which a roadmap for achieving supply chain excellence can be created. More importantly, since supply chain drivers do not act independently but are inter-dependent in their influence on the performance of the overall supply chain, this approach reduces the risk of focusing attention on an isolated problem with a specific supply chain driver.

An Inside Look At Supply Chain Transformation

A global manufacturer/retailer was experiencing logistics-related challenges within its supply chain. The company formed a supply chain transformation team that augmented its experienced supply chain personnel with an external firm that had expertise in supply chain transformation and modeling. This team conducted multiple assessments and design workshops in conjunction with a supply chain modeling and simulation exercise to establish a supply chain baseline. Results of the baseline modeling, process mapping and assessments revealed multiple challenges:

- Quantitative data was not extensively utilized in the day-to-day management of the supply chain.
- Procurement of transportation and 3PL providers was based primarily on lowest cost, resulting in transportation cost reduction, but leading to poor customer service levels.
- Many processes within the supply chain were handled manually.
- No systems were being utilized to manage transportation and warehousing.

The transformation team created and implemented a supply chain roadmap to:

1. Consolidate warehouses and reduce inventory levels, reducing cost and complexity.
2. Implement transportation and warehouse management systems to manage and reduce transportation and distribution costs.
3. Outsource select business processes to reduce labor costs and complexity.
4. Implement Lean Six Sigma to reduce variation and errors across supply chain processes.

5. Identify metrics and KPIs and implement appropriate dashboards, providing actionable cost and performance data to aid decision making.
6. Implement analytical procurement tools to aid contracting and pricing.

By integrating the art and science of supply chain management within the transformation effort, many benefits were realized: Complexity was reduced, the customer experience was improved, and significant cost reductions in inventory, transportation and warehousing were achieved. Most importantly, the new metric and KPI dashboards provided the platform with an agile and adaptable supply chain, facilitating alignment across the manufacturing, retail and logistics organizations. Even though this case is from a manufacturer/retailer, supply chain transformation has a place in all industries.

Supply chains that are agile, adaptable and aligned -- in addition to being low cost and high speed -- have been shown to provide such a significant advantage over the long term through supplier disruptions, natural disasters, product recalls and even recessions.

The Bottom Line

Companies need supply chains that provide a sustainable business advantage over the competition. Supply chains that are agile, adaptable and aligned -- in addition to being low cost and high speed -- have been shown to provide such a significant advantage over the long term through supplier disruptions, natural disasters, product recalls and even recessions.

Achieving supply chain excellence is within the reach of any company. However, it requires a vision, as well as the organizational imperative and willingness to invest in the right skills and resources. In this way, companies will be able to initiate and drive change in collaboration with partners, vendors and customers across the entire supply chain.

This article was written by the Cognizant Supply Chain Management team, including Robert Bowser, a practice director, and Kumar Balasubramaniam, an account manager working with major transportation and logistics companies. Robert brings 25 years of experience in supply chain management and is currently focused on assisting SAP customers in developing and deploying leading practice transportation management capabilities and technology solutions. Kumar has a Masters in Computer Applications and in-depth experience delivering supply chain solutions to express and vehicle logistics customers in North America and Europe. They can be reached at Robert.Bowser@cognizant.com and BKumar@cognizant.com, respectively.

Footnote

¹"The Triple-A Supply Chain," Dr. Hau L. Lee, Harvard Business Review, 2004.

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