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ANALYST CONNECTION



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Implementing Collaborative Demand and Supply Planning Solutions

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The future of collaboration in supply chain processes appears bright. However, collaboration is definitely a long-term project, with elements of both revenue generation and cost elimination. Forward-looking manufacturers will continue to work together toward a single, "extended" supply chain to overcome challenges and achieve their ultimate goal — to deliver the "right product, in the right place, at the right time, at a fair price with zero defects."

The following questions were posed by SAP to Simon Ellis, practice director of Supply Chain Strategies at IDC's Manufacturing Insights, on behalf of SAP's enterprise customers.

Q. What are the emerging supply chain challenges that today's manufacturers need to address?

A. The expanding use of outsourcing, both offshore and near-shore, has resulted in highly distributed supply networks that require multiple partners, direct and indirect, to bring products and services to the global market. Consequently, global supply networks have become highly complex, involving a myriad of touch points that range from obtaining raw materials to delivering finished goods. These global supply networks must exhibit a high degree of adaptability, responsiveness, and collaborative capability (not just the willingness to collaborate but also the systems facilitation to be able to do so efficiently), or they quickly become chaotic with poor service levels and high inefficiency and costs.

At the same time, global demand is growing and companies are finding that the fundamentals that create high-performing supply chains within countries or regions don't necessarily translate easily to global environments, including business process pressures on the supply chain, poor or infrequent communication with language (and potentially technology) barriers, and an exponentially greater numbers of partners. But these global supply networks still need to properly balance the basics: cost, service, and productivity.

Thus, the globalization — and the resulting variability — of both supply and demand can quickly degrade service and cost performance if companies are not able to respond quickly, decisively, and profitably to these inevitable changes. We are also seeing growth in customer demands for diversification and broader variety —in both product and product delivery — which is driving higher-than-ever levels of supply chain complexity. An interesting example is

the levels of out of stocks in consumer packaged goods, which have remained largely consistent at 10% over a number of years. Are companies' efforts to improve the capabilities of their supply chains not effective, or have the gains exactly offset network complexity growth (i.e., number of SKUs)?

Moreover, we should not lose sight of the fact that there are enormous cost pressures on the supply chain to increase productivity and reduce inventory levels, and that these pressures are in great part responsible for the distributed global supply networks that many companies now operate. These cost pressures are not going away, so it is incumbent on the supply chain organizations to continue to eliminate waste and improve productivity.

Q. How are manufacturers managing their supply chain application selection and deployment?

A. A number of factors are influencing supply chain application selection and deployment. The first significant influencing factor is the combination of the year-on-year shrinkage of IT budgets and the challenges CIOs face in balancing "maintenance/break-fix" with "capability development." While we see outsourcing deals for the maintenance aspects of IT (noncore operations), we also see a focusing of activity around key supply chain pain points and a focusing of strategic priorities. It's often instructive to look at manufacturers' key performance indicators (KPIs), generally those metrics tracked at the board level, as a barometer of strategic priorities — forecast accuracy, time to recovery, inventory cover/turns, and the perfect order/on time in full (OTIF). Unsurprisingly, these key metrics revolve around better demand and supply planning, but they also reflect cost and service.

The second significant influencing factor is manufacturers' desire for ease of integration (perhaps even pre-integration) and an ROI. This has two implications: One, that companies' dissatisfaction with delivered value in past application implementations is resulting in significant presales focus on specific functionality, benefit, and timing as companies evaluate new solutions; two, that companies appear to be moving away from the application "spaghetti chart" of old and more toward a platform or SOA-based strategy where integration challenges can be minimized and ROI delivered more quickly.

Q. Why is collaboration between and among supply chain processes more important than ever?

A. Collaboration has become something of a buzzword, and while its ubiquity in the supply chain lexicon is unfortunate, it remains perhaps the single most important facilitator for improving supply chain performance. As we mentioned previously, supply chain organizations are rapidly evolving to distributed global supply networks servicing an increasingly global customer/consumer. Whether due to distance, culture, language, or technological deficit, the traditional command-and-control supply chain techniques simply do not work anymore. At Manufacturing Insights, we receive regular inquiries on how manufacturers should evolve their oversight capabilities in the face of globalizing operations, and how they can improve both the speed and quality of their decision making. It's no coincidence, then, that the most common result for our global supply chain innovation survey conducted in late 2007 indicated a desire for "better, faster decision making in a global environment."

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It's also true that as supply complexity grows — in terms of both more distributed operations around the globe and greater vertical complexity in supply partners — the need for effective collaborative processes grows faster. The desire to collaborate is not enough; companies must also have the proper tools to do so — thus the enormous appeal of comprehensive collaborative supply planning applications. A similar trend occurs on the demand side, where dramatic advancements in data volume and quality have made demand signals available to manufacturers that can now make replenishment decisions based on actual demand rather than just forecast demand. The ability to collaboratively manage the demand signal is transformational, yet many manufacturers are unable to do so because either their business processes or their systems are inadequate. Thus, as we see on the supply side, comprehensive collaborative planning applications are also extremely appealing on the demand side.

Things get really interesting when companies try to marry collaborative supply and demand planning capabilities to form a cohesive "modern supply chain." Here, the synchronization of the applications is critically important to manage the disparate "clock speeds" of the supply side and the demand side and to reconcile the interface trade-offs of things such as capacity utilization, inventory policy, and cost/lead time.

Further, effective information-driven collaboration also allows manufacturers to be proactive rather than reactive in their decision making and more effective at eliminating business process "waste."

Q. What are some of the current industry supply chain best practices?

A. At Manufacturing Insights, we see all levels of supply chain performance, from poor to best in class. One question we get regularly is, "What are best-in-class organizations doing that drives their performance?" While this question is quite broad, two common themes are worth a brief discussion.

The first characteristic we typically see in high-performing supply chain organizations is a robust and cross-functional sales and operations planning (S&OP) process that turns disparate internal and external views of demand and supply into one aligned cross-departmental, go-forward plan that is in sync with the financial and KPI goals of the company. Because S&OP is the key operational interface between supply planning and demand planning, we see truly integrated demand and supply planning capability, both long- and short-term multiechelon inventory optimization, and execution capability linked to demand variability. Managing across the supply-side/demand-side interface is where S&OP can be most useful in understanding supply constraints, creating flexible postponement strategies (often with regional/global supply networks), and then balancing "demand awareness" with fulfillment capability (usually with national fulfillment organizations) to drive better service levels at the lowest reasonable cost.

The second characteristic we typically see is a supply chain organization that has successfully evolved from being multinational to truly global. Here we see quite sophisticated approaches to risk and risk management, along with a global network design approach that plans for the longer-term supply implications of capacity, inventory, and, increasingly, energy costs, while balancing global demand patterns and fulfillment execution constraints.

But, at the end of the day, this is all just fancy talk if the metrics don't reflect the performance. We already have mentioned some of the key, board-level metrics — forecast accuracy, time to recovery, inventory cover/turns, the perfect order/OTIF — and while managing cost and service is an ongoing "tug-of-war" for most supply chain organizations, the best-in-class

organizations seem to be able to balance both. Whether reducing "time to recovery" from a significant supply disruption to days instead of weeks or managing "gap-closing" promotional activity as part of the S&OP process to address business performance shortfalls, best-in-class supply chain planning organizations seem to be able to manage to consistently meet their cost and service metrics.

ABOUT THIS ANALYST

Simon Ellis leads the Supply Chain Strategies practice at Manufacturing Insights, one of IDC's industry research companies that address the current market gap by providing fact-based research and analysis on best practices and the use of information technology to assist clients in improving their capabilities in key process areas. Within the Supply Chain practice, Ellis specializes in advising clients on Low Cost Sourcing (LCS), RFID, Data Synchronization, Lean, Six Sigma, and more.

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