

Why Supply Chain Integration and Visibility Is the Future for Manufacturers



At a Glance:

Cloud computing is delivering the future of supply chain management in three key areas.

- Greater clarity and consistency of strategic supply chain objectives
- More effective and collaborative strategic sourcing for direct and indirect procurement
- Design supply chain processes so they can readily scale globally first

Bottom Line: As manufacturers continue to experience market growth, spending is contracting and consolidating. These market dynamics are forcing suppliers to meet and exceed cost and delivery targets while collaborating more closely than ever before.

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Making Supply Chain Integration Pay

The greater the integration and visibility within a supply chain, the fewer delays there are in time-to-market, the greater the production quality and the more effective supplier collaboration becomes.

Despite the many benefits of an integrated supply chain, the majority of manufacturing supply networks are known for the following characteristics:

- Limited to no information technologies (IT) integration within and between suppliers on such fundamental areas as forecasting and demand management
- Limited if any shared quality data and process-based collaboration between suppliers
- Lack of consistency in core process including sales & operations planning (S&OP) and reverse logistics
- Too much reliance on siloed, often myopic and very functional metrics that only propagate one view of the supply chain's performance
- An inordinate amount of product, service and supply chain network complexity
- Advanced manufacturing strategies are often done manually and in highly siloed workflows where supply chain visibility is non-existent. This leads to manual work-around programs and gross margin leakage quickly over time.
- Advanced supply chain workflows including S&OP are often done by hand and are only partially effective when based on portals or static applications that don't align with how subcontractors and suppliers work.



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These are just a few of the many challenges that suppliers face in streamlining their operations to gain greater efficiencies. These many challenges also underscore why it is so critical for manufacturers and suppliers both to attain greater levels of integration. Driving down the cost of quality, reducing time-to-market and accelerating process improvements are the three areas that are the most measurable and that deliver the greatest value from integrating supply chain networks.

How Cloud Computing Is Delivering the Future of Supply Chain Integration Today

The Plex Manufacturing Cloud is providing manufacturers with greater agility and independence as their supply chain operations are less constrained by manually-based approaches.

Based on customer interviews and the many discussions on our customer community, suppliers want to use cloud-based supply chain management systems as the catalyst to achieve the following objectives. These are ranked in terms of importance to suppliers in industries worldwide:

- **Greater clarity and consistency of strategic supply chain objectives corporate wide.** Suppliers most often see this area as having the greatest room for improvement in both their own operations and in the operations of their customers. Closing the gap in supply chain objectives begins with a common system of record. Customers tell us cloud-based platforms are delivering on this need, making it possible for all departments and divisions to share a common system of record and single version of the truth across all supply chain operations.
- **More effective strategic sourcing for direct and indirect procurement.** The focus within some suppliers today is how to create a consortium-based buying strategy that combines their efforts to create greater purchasing power. What's missing is the ability to create more effective strategic sourcing that can also combine better project tracking and performance management across buying consulting. As direct procurement saves the most in terms of costs, the focus on project management as part of consortium-based purchasing is also critical. Only cloud-based platforms are delivering this today.

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- **Develop supply chain processes designed to scale globally from the start.** All suppliers need to think of themselves as global competitors first, and align their specific supply chain processes and programs to compensate for variations in supplier quality management, time-to-market and continual process improvement on a global basis. Only by concentrating on these areas can a supplier scale and retain its customers while competing to win new business.

Supply Chain Integration Accelerates Supplier Bidding and Estimating

The immediate impact of bidding and estimating on gross margins, profitability and project-based manufacturing work breakdown structures aren't easily measured in manually-driven systems. When a unified system of record is in place, bidding and estimating workflows are more integrated, there is greater visibility throughout the entire process and both quality and time-to-market improve.

The following five lessons were learned from working with manufacturers to streamline their bidding and estimating strategies:

- Creating a single, unified system of engagement across an entire manufacturing operation has been shown to improve bidding and estimating by over 50 percent in Plex customers and across the industry. By creating a single version of the truth for all bidding and estimating activity, CFOs are better able to see how different approaches to creating, managing, and optimizing bidding and estimating make a direct contribution to revenue growth.
- To increase bidding and estimating close rates, it's critical to move beyond tacit knowledge management using a taxonomy that supports explicit knowledge sharing instead. This is related to initiating and maintaining a strong change management program to support automating bidding and estimating. Plex customers attest that the greater the knowledge sharing, the greater the trust between departments. And the greater the trust, the faster things get done. Trust is a powerful accelerator that gets unleashed when bidding and estimating data is freely shared.

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- Having a single, unified enterprise-wide bidding and estimating system is leading project teams, product divisions and business units to standardize unified budget practices and WBS. Solving conflicts to make the daily operations of project teams, product divisions and business units more efficient starts by having budget practices and WBS definitions propagated through production and consistent across the company. Once ingrained in a manufacturing company, a siloed bidding or estimating system will eventually drive disparate WBS structures if requirements are materially different from the company. Having enterprise-wide bidding and estimating systems integrated to a corporate-wide WBS structure reduces cross-department, project, and division conflict.
- When bidding and estimating moves beyond a siloed or department-based function to an enterprise-wide system, target cost analysis, competitive bid response accuracy and timing, and life-cycle costing all improve. Integrating interdependent systems for greater project-based performance only happens when trust is unleashed as a catalyst for permanent change. To make that happen, manufacturers need to have bidding and estimating systems to provide a level of accuracy and transparency that is not possible with siloed systems.



Seeing the Financial Value of Supply Chain Visibility

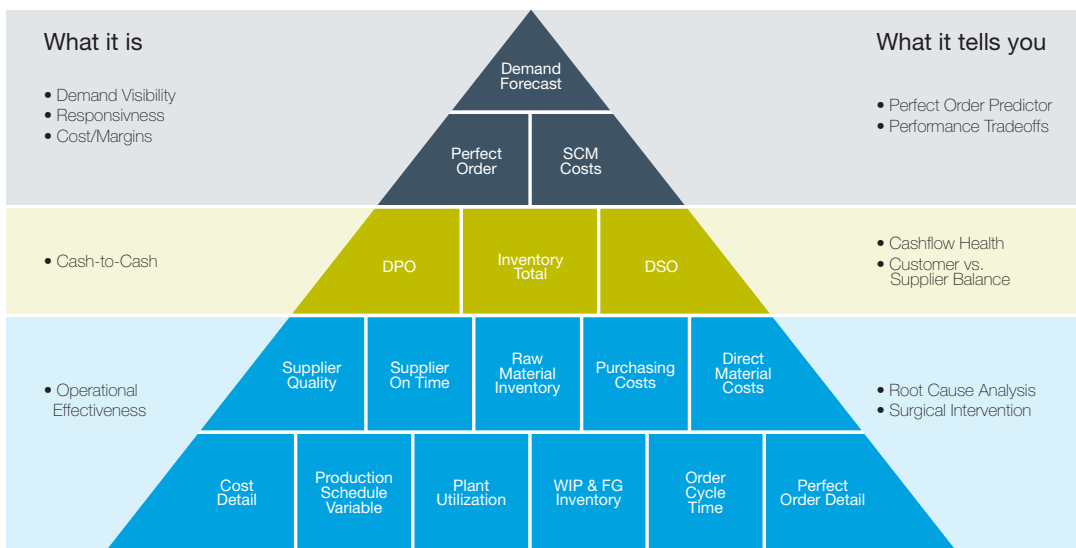
Using the Hierarchy of Supply Chain Metrics shown in Figure 1, manufacturers will be able to quickly determine how improving ground-level or operational metrics drive cash-to-cash and eventually top-tier financial results.

The Plex Manufacturing Cloud enables greater root cause analysis and precise intervention to the supplier quality, supplier on time, raw material, order cycle time and enables suppliers to better manage perfect order performance. These metrics form the foundation of the hierarchy of supply chain metrics.

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Only with a unified, complete system of record can these specific metrics of operational performance be aligned with cash-to-cash measures including inventory management and the aggregation of Days Sales Outstanding (DSO) performance over time. Combining these elements will eventually lead to an accurate demand forecast and make supply chain management trade-offs clear. This is only possible when there is a single, unifying system that orchestrates all of these factors together.

Figure 1: Hierarchy of Supply Chain Metrics



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Conclusion

Using myriad manual processes, combined with best-of-breed software will not deliver an acceptable level of orchestrated supply chain performance. Having each one of these process areas integrated into a comprehensive supply chain management strategy, all unified over a cloud architecture, accelerates supply chain performance and enables supply chain metrics to be used as a roadmap to continually improve supplier performance.

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About Plex

Plex is the Manufacturing Cloud, delivering industry-leading ERP and manufacturing automation to more than 400 companies across process and discrete industries. Plex pioneered Cloud solutions for the shop floor, connecting suppliers, machines, people, systems and customers with capabilities that are easy to configure, deliver continuous innovation and reduce IT costs. With insight that starts on the production line, Plex helps companies see and understand every aspect of their business ecosystems, enabling them to lead in an ever-changing market.