

# MANAGING MULTI-TIER SUPPLY CHAINS— WHAT TODAY'S MANUFACTURING LEADERS NEED TO KNOW

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## SUMMARY



Enterprises rely on hundreds of different companies around the globe—each playing a unique role in the process of getting a particular product to market. Their activities need to be tightly coordinated to deliver products to customers—on time and at the lowest possible cost. As a result, the companies leading their respective industries are already extending their supply chain management strategies to include multiple tiers of the multi-enterprise network.

As global supply chains become increasingly complex, it is no longer good enough to limit collaboration and visibility in the supply chain process to Tier-1 partners, especially for critical components coming from lower-tier suppliers. However, according to a recent Risk methods report, 51 percent of disruptions among surveyed suppliers originated from Tier-2 and lower suppliers<sup>1</sup>. The benefits of multi-tier visibility and collaboration extends across the entire product life cycle, which is advantageous for manufacturers. Multi-tier connectivity can reduce planning cycle lead times, improve supplier performance, and reduce risk to the supply chain. On the other hand, the downside of multi-tier supply chains is that they can cause increased vulnerability and instability in your supply chain and negatively impact your order fulfillment process.

**This eBook provides an overview of why and how manufacturers can monitor their supply chain's supply chain. It is divided into three key sections:**



**A BRIEF OVERVIEW OF MULTI-TIER SUPPLY CHAINS**



**CHALLENGES, BENEFITS, AND KEY CONSIDERATIONS**



**BEST PRACTICES FOR MONITORING YOUR SUPPLY CHAIN'S SUPPLY CHAIN**

<sup>1</sup> <http://www.riskmethods.net/en/roi>

## MULTI-TIER SUPPLY CHAINS IN MANUFACTURING: A BRIEF OVERVIEW



A supply chain refers to the network of all the individuals, organizations, activities, resources, and technology involved in developing and selling a product, including the delivery of source materials from suppliers to manufacturers, right up until the delivery of the end-product to the customer. Multi-tier supply chains are numerous single-tier collaborations; meaning multiple supplier-buyer-relations, within one supply chain.

Manufacturers, in particular, retain supply chain partners all over the world and the goal of manufacturing leaders is to ensure that their supply chains are well-streamlined and as Lean as possible. The same efficiency that keeps these global supply chains Lean can often create vulnerability, rendering some supply chains unable to deliver on their manufacturing promises. Furthermore, it can be challenging for key executives to investigate the robustness of their key suppliers.

Given the financial, economic, and reputational risks of a potential lapse in multi-tier supply chains, it is imperative that businesses are well-informed, prepared for, and pro-active in the way they monitor their suppliers' suppliers. According to the Business Continuity Institute's Supply Chain Resilience 2014 survey, companies experienced at least one instance of supply chain disruption in the past 12 months, and more than half of the respondents in the BCI survey found that the disruptions had come from suppliers below the top tier.<sup>2</sup> Similarly, in a recent Riskmethods report, 51 percent of disruptions among surveyed suppliers originated from Tier-2 and lower suppliers. These disruptions represented an increase of 9 percent as compared to 2013.<sup>3</sup>

<sup>2</sup> <http://www.thebci.org/index.php/obtain-the-supply-chain-resilience-report>

<sup>3</sup> <http://www.riskmethods.net/en/roi>

# MULTI-TIER SUPPLY CHAINS IN MANUFACTURING: A BRIEF OVERVIEW



**FIGURE 1:** SIMPLIFIED MULTI-TIER SUPPLY CHAIN





## BENEFITS OF MULTI-TIER SUPPLY CHAINS

Multi-tier supply chain relationships help businesses reduce costs by decreasing capital assets, leveraging affordable labor and key customer segments, and enabling easier access to raw materials. It also allows manufacturers to get products to market quickly. When done right, the key business benefits of multi-tier supply chains include:



### **STREAMLINED OPERATIONS:**

With proper communication across all tiers of the supply chain, manufacturers are able to exchange information across the supply base in a quick and efficient manner. This exchange of information, in return, reduces operational risk through shorter lead times, improved forecasting, and streamlined procurement and distribution processes.



### **OPTIMIZED SUPPLIER PERFORMANCE:**

Improved operations enables buyers within each tier to measure supplier performance, including creating and implementing systems to communicate any challenges—as they occur.



### **REDUCED SUPPLY CHAIN RISK:**

Successful manufacturers know that both the speed and quality of information is important in a multi-tier supply chain environment. This improved communication results in greater visibility from, and, across different supply chain tiers—allowing buyers to address potential risks prior to any disruption in service.



### **ENHANCED PRODUCT LAUNCHES:**

As a result of improved operations, the ability to successfully and seamlessly launch products improves. Manufacturing companies who are well-established to monitor their supply chains' supply chains, are able to coordinate across these tiers to boost production buildups—while ensuring they are streamlined and efficient.



## CHALLENGES OF MULTI-TIER SUPPLY CHAINS

Despite these key benefits, global, multi-tier supply chains are becoming more complex and distributed—leaving manufacturers with less overall visibility and control over their production and distribution. Key challenges include:



### **WEAK INFORMATION SHARING:**

Unless there is a strong, formalized, and well-executed process for communicating across supply chains, manufacturers struggle to promptly identify and communicate any changes from within the supply chain, to all relevant parties.



### **POOR VISIBILITY:**

As a result of poor information sharing, manufacturers struggle to acquire detailed data about operational events that affect supply and demand. This struggle, in turn, results in a lack of agility and responsiveness in global operations.



### **INCREASED COMPLEXITY:**

As customers demand an increase in complexity, manufacturers are forming relationships with a range of suppliers across the world. These suppliers buy more complex components from their suppliers. All in all, the entire supply network is becoming more complex and consequently—more difficult to manage.



### **REDUCED AGILITY:**

For every change that occurs in the partnership between a supplier and its customer, it takes at least twice the time, in order to bring the altered demand through the multi-tier supply chain.



### **SURGING COSTS:**

Given the global nature of multi-tier supply chains and the effort involved in improving communication, visibility, and agility across the supply chain, companies must incur rising costs. As a result, many manufacturing leaders—all of whom are driven to reduce costs—must make tough decisions related to investing in the monitoring of multi-tier supply chains.





## KEY CONSIDERATIONS



For manufacturing companies, the need to improve visibility across global operations, as well as to boost the speed and accuracy of information sharing across the multi-tier channel, is of prime importance. There are several key questions for manufacturing executives to consider when it comes to improving their multi-tier supply chain processes:

- **What information are we missing when it comes to our suppliers and their suppliers?**
- **What vulnerabilities have we and do we incur, as we look to lean out our supply chain?**
- **How much do we rely on single suppliers for critical components? Are we relying on these suppliers too much?**
- **How can we leverage current metrics and measures to identify supply chain risks?**
- **What risks are our suppliers prone to? What risks are our suppliers' suppliers prone to?**
- **How crippling are these risks to our ability to achieve order fulfillment processes?**
- **How can we improve our supply chain performance?**

Manufacturing and supply chain leaders should re-visit these questions on a quarterly basis for optimal performance.



## MONITORING MULTI-TIER SUPPLY CHAINS: BEST PRACTICES



### 1. Ensure executive commitment

The most fundamental requirement for any organization looking to implement a successful multi-tier supply chain monitoring process is securing executive commitment. Specific steps to be taken include:



Creating a supply chain governing council that includes supply chain leaders, operations managers, procurement officers, business unit managers, and other relevant company leaders to undertake regular performance monitoring of key suppliers and their suppliers.



Identifying how the company selects its suppliers, including how they engage with suppliers further down the supply chain.



Committing to resources and support, especially as the size and scope of sub-tier supply chains grow, is a large endeavor. Technology, in particular, is an important investment in a day and age, where physical site visits to suppliers and their suppliers is not feasible.



Creating a schedule for corporate success, when it comes to examining current processes, evaluating current suppliers, and setting an on-going timetable for improving multi-tier supply chain monitoring.



## MONITORING MULTI-TIER SUPPLY CHAINS: BEST PRACTICES



### 2. Evaluate current supply chain processes

The effective monitoring of multi-tier supply chains requires that businesses are able to take stock of their current processes, including whether current processes measure up against industry-specific key performance indicators. Benchmarking how the company's current supply chain is performing will help address any roadblocks and reduce potential sources of revenue leakage. Current processes should be evaluated for:



Supply chain performers that are slow to respond to changes and demand volatility.



Risk related to poor procurement and delivery date estimations.



Quality of visibility across the suppliers, including the ability to share information up and down the supply chain, as well as react promptly to supply chain performance.



Agility and flexibility when it comes to responding to changing requests from, and across, sub-tier suppliers.



## MONITORING MULTI-TIER SUPPLY CHAINS: BEST PRACTICES



### 3. Assess Tier-1 suppliers

One of the critical ways for manufacturers to improve their monitoring of multi-tier supply chains is to ensure their Tier-1 suppliers are effectively monitoring and communicating with their suppliers. While this can often be challenging, key elements to ensure, include:



Current contracts are understood by the supplier and their suppliers. It is optimal to manage contracts for sub-tier suppliers using technology and automation systems for accuracy and to mitigate risks.



Requirement specifications are drafted, as they relate to design processes for good business practices, sourcing processes for robust methods, contracting processes for efficiency and cost-effectiveness, communications processes for clarity and speed, performance management processes for timely feedback, and manufacturing processes for proper documentation and control of sub-tier suppliers.



Risk management processes are consistently evaluated based on lessons learned.



## MONITORING MULTI-TIER SUPPLY CHAINS: BEST PRACTICES



### 4. Leverage technology

By implementing appropriate Enterprise Resource Planning (ERP) software, organizations are better prepared to increase visibility into multi-tier supply chain monitoring, including the ability to:

-  Access real-time information, in order to react immediately, if need be. The ability to access data in real-time is crucial, when monitoring key suppliers and their suppliers.
-  View data from different areas of the supply chain. This enables relevant parties to collaborate with greater ease.
-  Plan more accurately, in order to improve agility and responsiveness—across the supply chain.
-  Unlock deep insights into current and future states of various markets and markets trends, in order to guide suppliers and their suppliers.
-  Simulate “*what-if*” scenarios, in order to support demand planning.
-  Enable complex analytics and secure the exchange of data.



## MONITORING MULTI-TIER SUPPLY CHAINS: BEST PRACTICES



### 5. Integrate and improve

Manufacturing leaders should be clear on the technology and methods of communication used by suppliers across the supply chain. Ensuring a centralized system for communication and automation in the supply chain is critical in a multi-layered supply chain. As challenging as implementing this system and process can be, in order to be successful, manufacturers need to:



Train and establish dedicated resources to ensure proper integration of technology to help streamline communications.



Implement technology and automation solutions whereby all pertinent suppliers can view the same information, and see what is being reviewed by others in the supply chain.



Define key performance indicators (KPIs) to help promote a consistent understanding of each measure—across the organization.



Align performance metrics and targets across functions within the organization, as well as other organizations across the value chain.



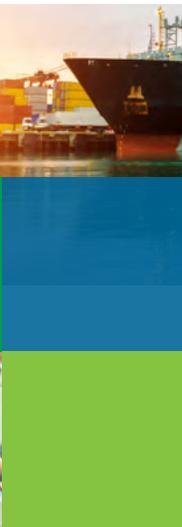
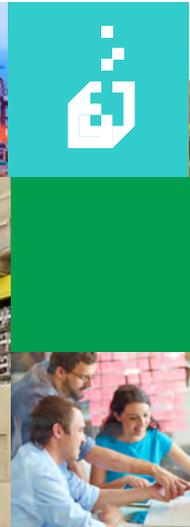
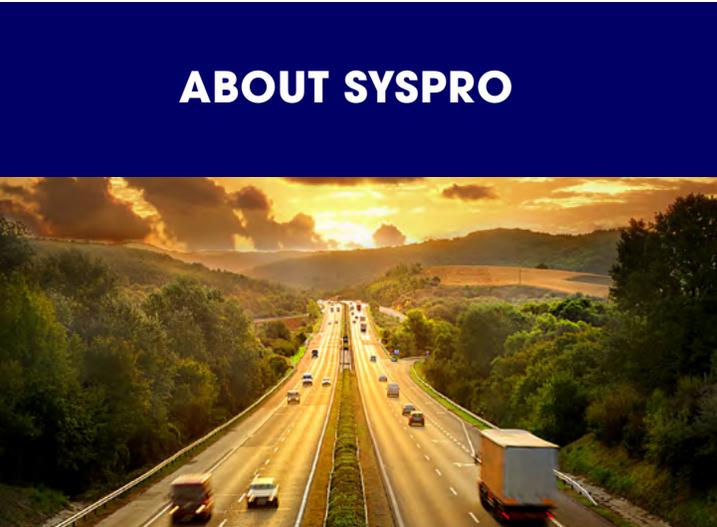
## CONCLUSION



As supply chains become increasingly global and more complex, manufacturers must look to develop and implement systems to help monitor their suppliers, as well as their suppliers' supply chain. Defining and implementing a common supplier management process across the organization has a host of business benefits including improving how key suppliers select and evaluate their supply chain.

The steps and considerations outlined in this eBook are meant to provide manufacturers with a general overview of why and how they can begin or improve this process. Successful manufacturers should review their processes on a quarterly basis in order to better understand, evaluate, and address the challenges of managing multi-tier supply chains.

## ABOUT SYSPRO



**SYSPRO software is an award-winning, best-of-breed Enterprise Resource Planning (ERP) software solution for cost-effective on-premise and cloud-based utilization.**

Industry analysts rank SYSPRO software among the finest, best-in-class enterprise-resource planning solutions in the world. SYSPRO software's powerful features, simplicity of use, scalability, information visibility, analytic/reporting capabilities, business process and rapid deployment methodology are unmatched in its sector.

SYSPRO, formed in 1978, has earned the trust of thousands of companies globally. SYSPRO's ability to grow with its customers and its adherence to developing technology, based on the needs of customers, is why SYSPRO enjoys one of the highest customer retention rates in the industry.

### **NEXT STEPS:**

If you want to learn how SYSPRO can help you manage multi-tier supply chains for your organization, contact us today at [info@ca.syspro.com](mailto:info@ca.syspro.com) or +1 (888) 259-6666.

