



# Stop flying blind

Wide-ranging supply  
chain visibility improves  
overall resiliency



# Remove the blind spots

The COVID-19 pandemic and the Russia-Ukraine war snarled global supply chains, causing shortages of goods and materials around the world. These disruptions highlight a longstanding problem that most manufacturers and retailers haven't been able to resolve: They can't see deep into their supply chains to understand where the risks are. And without that visibility, they are, in effect, "flying blind."

Even in normal times, companies don't have advance warning about issues like growing component shortages or labor disruptions. Without such visibility, companies risk being unable to fulfill their own customers' orders, forcing them to find more reliable or cheaper suppliers, or worse, find themselves at the mercy of a supplier's interruptions.

Recent events have made this longstanding problem particularly acute. In a recent KPMG survey of senior executives with responsibility for supply chains, only about a quarter of businesses indicate their supply chains remained stable over the past few years; among the nearly 75 percent that experienced significant supply chain disruptions, over half have yet to establish stability for the future. Moreover, 87 percent of respondents indicated that the importance of supply chain visibility has increased "significantly" or "moderately."<sup>1</sup>

Perhaps, no better example of the risks at hand is the recent experience of automakers, which have struggled due to the raging semiconductor shortage: their pain has occurred, in part, because they lacked direct knowledge of supply issues upstream.<sup>2</sup>

On the other hand, when companies do have visibility into their supply chains—from one end to the other—they gain the resiliency to better react and manage those disruptions and reduce risk. Wide-ranging visibility across the supply chain allows companies to better align demand and supply and improves their ability to make rapid, fact-based decisions with extended business partners. It clarifies the trade-offs needed to address supply chain constraints and enhances how the financial impacts of their decisions are made.

Companies have tried to develop the visibility they need. But a general resistance between companies and their suppliers to share information and the difficulty of getting all parties to understand the benefits of finding a solution have hampered these efforts.

In this paper, we show how a combination of centralized supply planning, multitiered visibility, and scenario-modeling can remove operational blind spots caused by "flying blind."

<sup>1</sup> KPMG Supply Chain Survey, December 2022

<sup>2</sup> "Surviving the silicon storm," KPMG LLP, 2022

# Supply chain complexity prevents visibility

Gaining supply chain visibility isn't an end in itself. Visibility benefits the company by supporting the resiliency needed to better react to unexpected events. But to achieve visibility, companies must address the challenges of today's increasingly complex supply chains.

In a recent survey of supply chain executives conducted by KPMG LLP, a large swath of respondents stressed that greater supply chain visibility would support crucial data and information to minimize disruptions, enable risk mitigation, improve supply chain decision-making, and increase speed to market. In addition, the businesses surveyed emphasized the need to increase visibility into their supply chains in order to maintain operational stability going forward. What's more, 59 percent of supply chain leaders who responded to an industry study indicated that improving supply chain visibility was their most important business priority in 2022.<sup>3</sup>

So, if visibility is so important, why has it been so difficult for companies to achieve?

One reason is the sheer complexity of the modern multitiered supply chain (read the sidebar on the next page). Even the biggest companies have trouble seeing past their top-tier suppliers to understand what is happening with tier 2 and tier 3 component suppliers down the chain. A recent KPMG global survey revealed that 70 percent of companies perceive their supply chain as "very" or "extremely" complex.<sup>4</sup>

Other challenges exist as well. According to our recent survey, respondents cited lack of adequate technology and the inability to access relevant data sets as the top barriers to gaining real-time visibility with tier 1 and tier 2 suppliers.

Finally, these challenges are compounded by the simple fact that some tier 1 suppliers simply don't want to share information concerning their suppliers down that line. Nevertheless, half of businesses in our survey recognize the need to engage tier 1 suppliers to build supply chain ecosystems that cooperatively grant businesses access to critical data across supply chain activities, and nearly 60 percent plan to invest in digital technology to bolster their data synthesis and analysis.

## **Visibility: don't forget your customers**

It's crucial that companies develop visibility with their suppliers. But visibility in the opposite direction—customers—is critical, too. Companies are actually in the middle of the supply chain. They need transparency so their customers can tell them what they want and need, and the companies, in turn, can tell their suppliers what the company needs.

Getting to this level of visibility and transparency will likely require technology, data and analytics, and significant cultural change on the part of supplier and companies. In the next section, we'll look at how companies can achieve that visibility.

<sup>3</sup> Fictiv 2022 State of Manufacturing Report

<sup>4</sup> "Supply chain visibility in the digital age," KPMG LLP, 2022



## Why today's supply chains are so complex

The manufacturing of smartphone touchscreens is one example of production that demands a multitiered supply chain.

It takes many suppliers and contract manufacturers to assemble the anti-scratch glaze, tempered glass, glue, touchscreen sensor, polarizing filter, and LCD matrix before the screen can be attached to the phone.

A lot can go wrong at any step of the process to delay shipments and lose sales, so a smartphone maker wants visibility into every link of the chain. They want to track and trace orders, determine if alternative sourcing arrangements are needed, or collect emissions and labor data for ESG reports. It can also be as simple as wanting to know when the delivery truck will arrive so the company can schedule its loading dock crews and begin production runs.

### Share your vision, and collaborate with suppliers to deliver real value

While companies across industries recognize the potential benefits of supply chain visibility and the risks of “flying blind,” only a handful actually benefit from it—only 13 percent of supply chain and risk management industry executives indicate having complete visibility into the end-to-end supply chain.<sup>5</sup>

The creation of a supply chain visibility program that enables better, faster decision-making is easier said than done. To deliver real-time access to data and insights across the supply chain, you need a sophisticated, integrated digital platform that is built to achieve the specific goals of the business. That means a transformation is required to gain multitier visibility into your supply chain, but it must be one that is suitable to your specific needs, industry, and circumstances.

<sup>5</sup>“Supply chain visibility in the digital age,” KPMG LLP, 2022

# How to lift the veil

It will take time and planning to create a platform with multitiered visibility. We can call this platform your “supply chain control tower.” This effort shouldn’t be viewed as a short-term project to solve a specific problem—rather, it’s part of long-term supply chain strategy that can sustain and grow with your business. Here are three actions that companies can take to begin building a unified supply chain platform where everyone sees everything, and nothing is hidden.

## Select the right tools

The market for supply chain management and visibility software is exploding, but the selection of the right tools will be critical to your success. What are all the capabilities you need the software to support? What is the functional scope? What data will need to be managed, and what insights do we need to make real-time decisions?

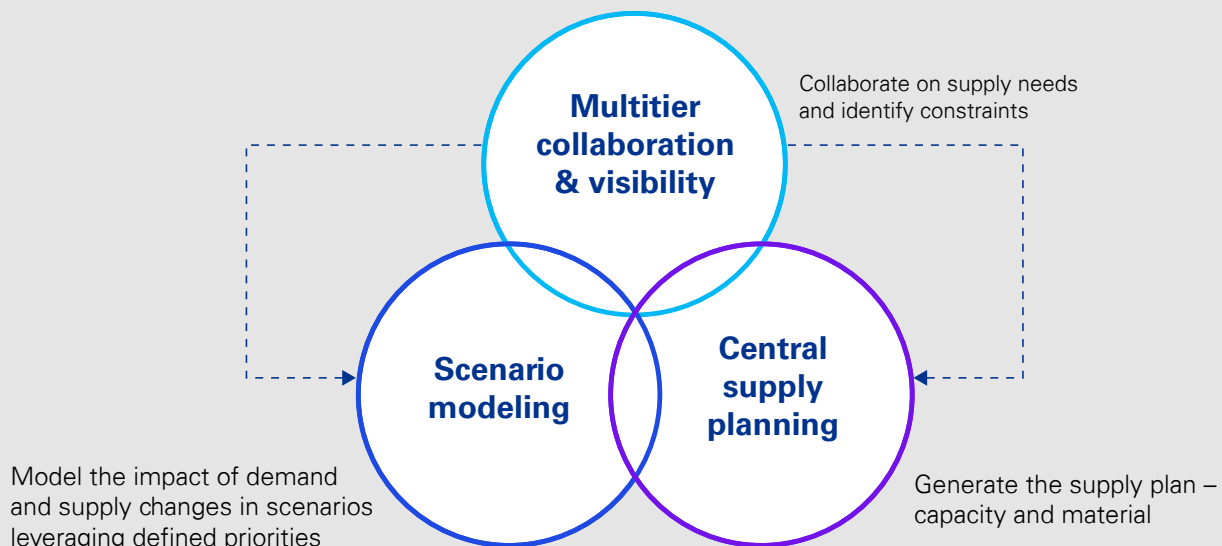
## Build a mutually beneficial relationship with supplier ecosystem

To establish multitier supply chain visibility, companies and suppliers must freely share information. Platforms help support extending processes to trading partners along the supply chain from end to end. To incentivize suppliers to participate, consider the following actions:

- Be prepared to “give to get” by sharing more visibility into customer demand or production schedules
- Define a shared-benefits model between you and your suppliers
- Don’t overengineer the solution—too many steps, alerts, rules, and metrics will hurt supplier adoption
- Improve your master data to increase effectiveness of your planning and procurement.

If properly designed, a collaboration supply chain control tower will provide you with the information you need to make effective decisions, along with the applications required to implement those decisions across your organization and extended partner community.

## A model for supply chain visibility



## Scenario modeling: create the vision

Scenario modeling can establish a vision for multitiered visibility that enables supply chain finance or CFOs to make informed, insightful decisions that take the effects of revenue, profit, operational costs, margins, etc., on supply chain management into account. It is crucial to set up this vision because it determines what type of collaboration and level of supply chain visibility you require.

To create a visioning statement:

- Determine your baseline supply chain capabilities based on your specific use cases and identify the gaps
- Assess the maturity of your current solution and identify opportunities
- Finally, prioritize your capabilities and refine the “to-be” architecture.

The visioning statement helps create a proper roadmap for leveraging priorities. The next step is to translate the transformation vision into business and target operating model baselines to develop an integrated business case. To start, create a financial baseline and benchmark. Next, identify opportunities for improvement through capability analysis, then develop qualitative benefits and quantitative return on investment for alignment and tracking.

Having a logically articulated vision and initial roadmap will help ensure alignment with your organization’s specific

strategic goals and enable stronger buy-in from key decision makers involved in the journey.

## Central supply planning

Companies need to understand the impact that potential decisions made to address supply chain disruptions will have on their top and bottom lines. Leaders need to be able to rely upon a solid central supply planning tool. This tool needs to do more than match supply to demand, it also needs to manage:

**Capacity planning:** The best tools need to not only represent nominal capacity throughout a complex supply chain, but also must reflect actual throughput, as well. Complex manufacturing may not be represented accurately at an item level and may require family-level aggregation or reflect a range of capacities based upon product mix modifications.

**Material modeling:** Using multitier visibility of material flows will allow companies in strictly allocated situations to consider consensus supply planning techniques. Instead of trying to expedite to meet the forecasted demand, focus on what can be achieved with the materials you do have. In this way, maximize revenue against a constrained situation. This technique can be focused upon customers but may better be focused upon throughput. The correct planning system coupled with visibility can support this decision-making process.



# Conclusion

As the events of the past few years have demonstrated, limited supply chain visibility has left many organizations flatfooted. Without first understanding all the constraints in the entire supply chain, companies cannot fully keep their commitments to fulfill their customers' orders.

Multitier visibility, combined with sophisticated scenario planning and supply chain planning, can empower companies to make better business and more profitable decisions and keep their own customers satisfied.

With more detail on the constraints in the extended supply chain, finance and operations together can run scenarios and models to determine what can be produced with the available supply, which can help to prioritize customers and markets and, ultimately, optimize revenues and margin contribution.



## How KPMG can help

KPMG is in the business of designing and implementing purpose-built supply chains. We are a full-service advisory firm with a broad range of functional and industry experience that can address your supply chain needs from strategy through execution.

### **Delivering value through alliances**

Our thorough solutions are driven by advanced technology from industry-leading companies. These strategic alliances

are key to helping you achieve a sustainable competitive advantage. Our global alliance ecosystem is designed to address today's top issues, trends, and priorities. By combining forces with leading services and technology providers, we enable you to realize enterprise-wide value from vendor selection, strategy, design, and technology implementations.

# Our solutions

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## Strategy and analytics

- Supply chain and manufacturing strategy
- Supply chain operating model
- Complexity management/cost to serve
- Supply chain segmentation
- Make vs. buy analytics
- ESG strategy



## Logistics and distribution

- Logistics strategy and network design
- Transportation and distribution management
- Inventory optimization and management
- Warehouse management
- Technology enablement and implementation



## Planning

- Demand and supply planning
- Sales and operating planning (S&OP/S&OE)
- Integration business planning (IBP)
- Cognitive planning
- Inventory planning and optimization
- Technology enablement and implementation



## Execution

- Order to cash optimization
- Manufacturing improvement
- Product planning and control
- Supply chain visibility and collaboration



# Authors



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