

How to build confidence and transparency across the automotive supply chain

By Phil Lewis

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A myriad of factors can create disruptions to the supply chain. If any event reveals the need for resilient supply chains, it's Covid-19. The disruptions shook and continue to shake every industry, including the automobile sector. Abroad, early 2020 forecasts projected a significant drop in new vehicle sales but ultimately turned out much better with only a 15% reduction from the total 2019 sales.



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It's no surprise the pandemic has prompted several automotive companies to embrace new supply chain strategies that allowed them to recover quickly while also setting them up for future growth. Many automotive companies established crisis teams and control towers to improve visibility and maintain profitability. This, in turn, developed into an advanced strategy around predictive risk management and multitier supplier collaboration.

Even with the automotive industry embracing new supply chain practices, another disruption has risen in the semiconductor chip shortage. With modern vehicles often containing thousands of semiconductors, this crisis underscores another dimension of supply chain risk exposure and highlights the critical need to collaborate with multitier partners for globally limited supplies.

When the automotive demand initially dipped, chip manufacturers saw a rise in demand from other sectors like home electronics and high tech, creating a diversion from chip manufacturers to fulfilling demand from these other sectors. When automotive demand bounced back earlier than anticipated, the limited supply was painfully exposed.

The microchip crisis mostly emerged due to the semiconductor industry's diamond-shaped supply chain. In this type of supply chain network, only a few manufacturers are completely vertically integrated and self-reliant as most manufacturing is outsourced to sub-tier suppliers who are often capacity constrained and stretch lead times. Any disruption at the sub-tier level directly affects the tiers above, and indirectly affect the original equipment manufacturers (OEMs).



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OEMs with visibility into sub-tier supply levels are better positioned to identify bottlenecks early and better manage the crisis. Now manufacturers are starting to realise that supply chain visibility and supplier collaboration are no longer "nice-to-have" capabilities but have become table stakes for staying competitive or in business at all. The key is harnessing visibility to build resilience.

Sustained collaboration only comes when transparency creates trust across the network. Supply chain visibility can carry different meanings depending on who you ask, but at its core, it's about providing transparency and access to supply chain events. This gives the organisation the ability to see where orders and goods are in the network, enabling collaboration and synchronisation between partners, customers, dealers, etc.

On the demand side, many automotive companies increase visibility through customer preference research, creating better forecast models and mix levels. Achieving visibility into the demand and supply outlooks allows for early detection of risk so better decisions can be made sooner.

Creating a culture of providing visibility to the network sounds great, but it's difficult to achieve. The ability to share information both within and outside the four walls of the company is constrained by behaviours built over decades. Some of these behaviours need to be dismantled so higher levels of trust are established and to generate this degree of visibility.

To build this level of trust, digital ecosystems should incorporate stringent identity and access controls related to network participant activities and data access. Multi-enterprise collaboration platforms or digital supply networks provide the appropriate security that can foster more trusting behaviours and user adoption of new technologies within the network. This encourages OEMs and suppliers to share information at scale in a sustainable manner that wasn't possible before, which is the key to creating an agile and responsive supply chain.

ABOUT THE AUTHOR

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