Starting inside the company: Supply chain resilience demands new initiatives and investments

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So much is beyond any company's control, including geopolitical and economic issues, new regulations, natural disasters, and shifting sustainability expectations. What is in a company's control is to improve resilience systematically and sustainably.

By Julie Fraser

upply chain disruptions are an ongoing challenge dictating resilience initiatives that must be strategic, prioritized, and systematic. Supply chains, especially as ecosystem supply networks evolve, are complex and ever-changing, reacting to demand variations from many interconnected disciplines and operations. While recognizing the market dynamics, supply chain executives struggle to get their companies over the goal line. Multiple coordinated initiatives are likely surfacing, some around people and processes, others around technology. Recent industry research findings from Tech-Clarity show that internal change to foster greater collaboration across the enterprise is a crucial differentiating

foundation for implementing systematic operations resilience strategies.

Business disruption and risk are normal and normal is no longer 'new'

Uncertain and unpredictable business conditions have become normal in operations. As supply chains transform to ecosystem supply networks, the company must respond, not only to intended demand signals but also to unintended demand signals. Simply put we are suffering the consequences of the bullwhip effect at warp speed. In recently conducted Tech-Clarity executive research studies, nearly three-quarters of executives report that disruption

and risk have significantly or somewhat increased over the past five years.

The competitive mandate: Develop a resilience vision/ strategy to soothe suffering

Do you feel a sense of urgency to make your supply chain more resilient to respond to these disruptions? Nearly half of the same group of executives listed supply chain disruption as having the most significant negative impact on the business. Supply chain disruption outranked financial market issues, the COVID-19 pandemic, geopolitical uncertainty, and more.

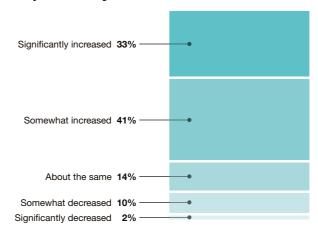
It's no surprise that supply chain disruptions significantly negatively affect business performance. Many core business processes rely on supply chain performance. Our research shows that most companies with negative supply chain performance suffer from longer lead times, market delays, pricing challenges, and lower customer satisfaction. These market-facing problems are just what our resilience initiatives aim to reduce.

Investing to implement resilience initiatives to cure supply chain suffering

If supply chain disruptions affect the business negatively, it's the result of our discipline suffering severe pain in responding to disruptive variations. In our research, every respondent (100%) reported supply chain disruption as the top challenge. Top

FIGURE 1

Business disruption and risk in the past five years



Source: Jim Brown, Executive Strategies for Sustainable Business Success 2023 © 2023, Tech-Clarity, Inc.

consequences from disruption identified among supply chain executives are as follows:

- Volatility in supply and response lead times.
- · Price increases.
- · Workforce challenges.

There may not be much you can do to control variability, market pricing, and disruptions. In 2025, new tariffs and geopolitical tensions are already apparent, adding to the challenges. Climate change continues, raising environmental sustainability expectations. Uncontrollable transportation cost increases are driving COGS and creating price and profit pressure to maintain consumer confidence. The economy is shifting, and the unforeseeable future looms. Is that light at the end of the tunnel or an oncoming locomotive?

Most supply chain leaders are investing in resilience. In our 2023 research, over 70%

had already been investing in resilience for over a year. The good news is that these investments are paying off. A full 95% of companies that have invested in resilience have seen benefits.

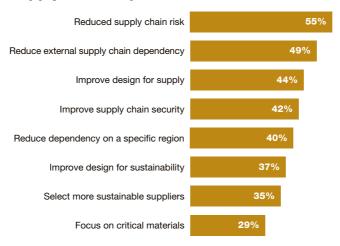
In our 2024 Executive Research, we added supply chain resilience as a pillar for long-term business success. What companies report as their objectives varies, but reducing risk ranks

What resilience investments matter most?

As a supply chain professional, you are in the pressure cooker, trying to figure out how to be more resilient in the face of many challenges. Our research findings about what initiatives make the most difference in supply chain planning for outstanding business results may surprise you. Improved collaboration with production,

FIGURE 2

Supply chain objectives



Source: Jim Brown, Executive Strategies for Sustainable Business Success 2023 © 2023, Tech-Clarity, Inc.

at the top. Reducing external supply chain dependency points again to the need to work on the internal factors for supply chain success.

To address these objectives, companies are investing in supply chain resilience initiatives. The benefits vary and include planning accuracy, appropriate inventory levels, speed of response, and customer confidence. These support lower costs and improve the business's ability to capitalize on revenue opportunities.

engineering, and product development is the most cited initiative among top performers enabling the supply chain to positively affect the company. It's an inside job. For top performers, multidisciplinary collaboration ranked higher than visibility, more frequent planning, integrated systems, AI/ML-based optimized planning, or shifting the supply base.

The other key supply chain factors that contributed most to positive business impacts were as follows:

FIGURE 3

Benefits experienced from investing in supply chain resilience

(% investing in supply chain resilience)



Source: Julie Fraser, Transformation for Supply Chain Resilience: Engineering and Manufacturing's Crucial Role © 2023, Tech-Clarity, Inc.

- Good visibility across customers and suppliers—a similar portion in the high 60% for both top performers and others.
- Good visibility across the company was 67% for both groups.
- Automated and/or autonomous planning processes were 40% for top performers and 28% for others.

No other factor had even a 10% larger response from top performers vs. others. The differences are in multi-disciplinary collaboration and automation.

Seek consistent, speedy visibility into changes

In manufacturing, products drive the need for supply chain activities. Production is in the middle of the plan-source-make-deliver-return cycle that we manage. Yet, product design and production are separate disciplines, not typically included in the supply chain team. Their activities, outputs, and capabilities change frequently and ideally drive supply chain planning.

As a result, having consistent and rapid visibility into changes in products and production could significantly improve the ability to coordinate supply chain activities for greater resilience. Our research shows that visibility into production and product design changes is another area for massive differentiation between top performers and others.

Top performers are three times as likely as others to:

- see product changes immediately, in less than an hour;
- always see changes in production capability.

Achieving this improved visibility among design and operations groups is a foundation for more accurate supply chain planning and execution. It is also a basis for collaboration among the disciplines, which top performers found so crucial.

Transformation and optimization for collaboration & resilience

During a research interview with a data-savvy professional we asked, "Will you transform or optimize your supply chain?" While it was an engaging

- by structure. You may have to change the structure to change the results.
- Reformulating processes to enable more visibility and collaboration without losing speed and autonomy for each professional to do their job will be a significant project.
- To support these new processes, new technology is likely needed.

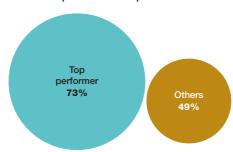
Some technologies we have seen recently to support transformation include the following:

· Data fabric that enables all data from all

FIGURE 4

No. 1 factor in supply chain having a positive business impact FACTOR

Good collaboration with production, engineering, product development



Source: Julie Fraser, Transformation for Supply Chain Resilience: Engineering and Manufacturing's Crucial Role © 2023, Tech-Clarity, Inc.

conversation intended to push for transformation, we realized that many companies should do both.

Transformation is typically required to overcome the differences among these disciplines. Creating cross-discipline, visibility, and collaboration will require transforming traditional ways of working inside each company. Transformation as an inside job will require new internal initiatives such as:

 The company may need to reorganize and set new, better-aligned metrics for various disciplines. Organizational behavior is driven disciplines to be available across the enterprise without moving it or replicating it.

- A value growth system that includes consulting and SaaS software to line up strategy, execution, and innovation across a company in ways that increase value to customers.
- Multi-tier supply chain control towers that not only address planning but multi-tier realtime response and resilient action.
- Agentic AI (language model with humans in the loop) that leverages a company's supply

chain data for specific tasks from demand forecasting to materials planning to production planning, and agents for procurement as well as supply or sales for multi-tier activity.

- Systems that include both supply chain and manufacturing operations support capabilities.
- Industry-wide frameworks for manufacturing and supply chain interoperability.

Is transformation the chicken or the egg?

Transformation may be top of mind, yet, we believe optimization also has its place. Even while we learn new mindsets, craft new processes, and implement new technologies, we can improve our work. Optimization has always been important in supply chain planning. Today, we can augment our traditional algorithms with many other forms of analytics and AI. While AI

programs face some hurdles, manufacturers are already gaining benefits based on early results of a not-yet-completed research study on analytics and AI in manufacturing.

Optimization and continuous improvement are disciplines that should not be lost. There will be places to optimize before, during, and after a significant transformation. Change in our markets is constant and must also be in our companies and supply chains. Are you ready for the inside job of change? •

About Global Links

Global Links appears in each issue of *Supply Chain Management Review*. Richard J. Sherman, retired guru of SCM, is the Global Links column editor. If you are interested in participating in the column, he can be reached at rsherman @goldanddomas.com.