



From Disruption to Advantage: How Transparent Supply Chains Create Resilience in a Fragmented Global Economy

Prepared by Claudine Ogilvie, Co-Founder and CEO HivePix.

(With assistance from Gen AI for brainstorming and refining the final article. 😊)



In a world where trade agreements shift overnight, tariffs climb without warning, and geopolitical tensions reroute entire industries, the only constant in global manufacturing is disruption.

From rising steel and semiconductor costs to increasingly stringent traceability demands from trading blocs like the EU, today's manufacturers face a supply chain landscape defined less by efficiency and more by volatility.

Yet amid this turbulence, a new form of competitive advantage is emerging — one not built on cost alone, but on data quality, transparency, and traceability. The question is no longer if your supply chain will be tested. It's whether you have the data that you need to respond.

Tariffs, Trade, and the New Operating Reality

On the 3rd June, the tariffs that President Trump imposed on foreign steel and aluminium are **set to double to 50 percent**. And while Trump continues to battle the courts declaring many of the administration's on-again off-again tariffs to be illegal, changing trade barriers across our interdependent global supply chains are nothing new.

In May 2024, the U.S. government announced sweeping tariffs on Chinese imports, hitting components critical to electronics and industrial machinery. The European Union's Carbon Border Adjustment Mechanism (CBAM) introduced a de facto tax on products lacking emissions transparency.

Meanwhile, WTO forecasts **Global merchandise trade to decline by 0.2% in 2025**, with North America facing a significant 12.6% drop in exports. The decline could be even steeper, falling by

1.5%, if trade tensions worsen, including the reactivation of US “reciprocal tariffs” and increasing policy uncertainty.

These aren’t theoretical risks. They are structural shifts reshaping sourcing, pricing, and market access across manufacturing.

Resilience Is No Longer About Inventory – It’s About Visibility

For decades, “resilience” meant buffering with excess inventory or building redundancy into supplier relationships. But in a post-pandemic, post-globalised economy, that model is increasingly obsolete — too expensive, too slow, and ultimately insufficient.

Leading manufacturers are instead focusing on resilience through visibility and agility — understanding their supply chains end-to-end, in real time, through accurate, structured product data that enables them to adapt quickly.

This evolution mirrors a shift identified by Boston Consulting Group: resilient organisations today are those that can anticipate, adapt, and absorb shocks — not just recover from them.

Product Data: The Linchpin of Modern Resilience

At the heart of this shift lies product data — a seemingly mundane but mission-critical asset that enables:

- **Transparency and Visibility:** Know where each product and component comes from. Spot bottlenecks and alternatives before they impact delivery timelines or margins.
- **Traceability:** make products easier, and prove compliance with international laws like the EU CBAM or US Proposition 65, and unlock access to high-value, regulated markets.
- **Agility and Adaptability:** Reconfigure suppliers or SKUs within days — not quarters.
- **Cost Reduction:** by digitising and through automation, manufacturers can reduce costs and redirect capital to value adding and revenue generating activities. Digitisation and data also fuels agility.

According to Accenture, next generation supply chains powered by AI and Gen AI capabilities (leveraging unified product data) achieve 23% greater profitability and deliver 25% greater customer satisfaction than their fragmented peers. They are eight times as likely to reduce the time it takes to develop and launch new products by 30%, 8.5 times as likely to develop eco-friendly products, and six times as likely to improve the efficiency of engineering resources by 30%.

Turning Visibility into Competitive Advantage

At HivePix, we work with manufacturers, distributors, and suppliers to build exactly this kind of transparency. Our product data ecosystem replaces spreadsheets, manual uploads, and error-prone emails with structured, automated, real-time data sharing between every node in the value chain.

We enable manufacturers, for example, to more easily assess the price and availability impact of tariffs for a component supplier and switch to an alternative — not in six weeks, but in five days. No need to scramble. You simply have the data.

This is the new competitive edge: speed, flexibility, and optionality born from visibility.

Risk Mitigation Is a Data Discipline

Cyberattacks, weather events, regulatory shifts, labour shortages — the nature of supply chain risk has changed. But the response must change too.

Supply chain leaders must now:

- Map their full supplier ecosystems, not just Tier 1.
- Monitor disruptions in real time, from material lead times to emissions compliance.
- Mitigate through digital twins, sourcing alternatives, and traceable product records.

And crucially, they must integrate these capabilities not as a crisis response, but as standard operating architecture.

Conclusion: The Future Isn't Just Resilient – It's Explainable

Resilience in today's manufacturing environment means building systems that can explain, to more effectively and competitively execute. Whether it's proving sustainability metrics to regulators, defending costs, or delivering trust to customers, explainable data is now core to business performance.

Manufacturers that invest in product data transparency today won't just survive the next disruption — they'll lead through it.

Learn more at www.HivePix.com

HivePix is a platform as a service that connects product data across supply chain partners, unifies product data across different sources and formats, and makes that data traceable for regulatory reporting and sustainability initiatives.

To learn more about how HivePix can transform your product information workflows, visit www.hivepix.com or contact us via email at info@hivepix.com.

Sources:

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