sphera®

How Digital Transformation Leads to **Supply Chain Resilience**

Executive Summary

For procurement and supply chain professionals, threats to supply chains appear in every conceivable form. Risk has become multi-dimensional and omnipresent. The variety, volume, and intensity of data can quickly overwhelm business leaders and practitioners. They may struggle to distil data into actionable business intelligence that will enable them to make informed and timely business decisions.

Fortunately, technologies exist that enable business leaders and practitioners to overcome information overload. **By becoming risk aware, responsive, and agile, they can transform their supply chain operations into resilient value drivers.** Indeed, a digitalized, automated, and integrated supply chain risk management (SCRM) solution can aggregate tens of thousands of sources of media and millions of data points into one central location. It can find hidden patterns in the data, and alert business users to the most relevant events.

Digital SCRM solutions can visualize a company's supply chain routes and risk objects, and connect the dots between them. Such solutions can dive into a company's supplier relationships, including their sub-tiers, to illuminate their business practices, and uncover any associated risks.

Yet digitally transforming supply chain risk management is much more than deploying a software solution. **A holistic strategy combines people and technology, and embeds risk management in all sourcing and procurement processes.** In today's chaotic business world, this is essential for survival.

Definitions

The terms digitization, digitalization, and digital transformation are sometimes used as synonyms. Although there is overlap, they are frequently used to describe and differentiate between data, processes, and strategic operating models.

Digitization Converting information from physical into digital form. In other words, creating data.

Digitalization Reorganization of business activities around digital technologies to improve business functions. The focus here is on processes.

Digital Transformation Developing and implementing a strategy that includes digital technologies. As businesses develop new digital business models, they change (transform) how they operate.

Source: How to Avoid the Digitalization Trap (webinar in German), Sphera, targetP!

Why Companies Fail to Embrace Digital Technology

Despite advances in technology, many companies still rely on manual systems and processes. Such processes are typically time- and labor-intensive, error-prone, and difficult to scale across the organization. Smaller businesses may be overwhelmed by the technology, or hesitate to invest.

Some enterprises simply remain reluctant to transform their procurement and supply chain operations. Or they are unable to digitalize and integrate their processes and systems, and to migrate towards intelligent automation.

As a result, they continue their struggle to:

→ **Capture the entirety of supply chain threat**

→ **Find the signals among the noise and identify the relevant risks**

→ **Assess potential impacts**

→ **Make decisions quickly**

→ **Be prepared for the worst**

→ **Respond before risk events strike**

Additionally, companies might feel "too busy" to carry out digital transformation. They are chronically understaffed, and perennially tasked to "do more with fewer resources." Yet procurement and supply chain leaders are expected to increasingly invest in technology. For example, Gartner predicts that by 2023, at least 50% of large global companies will be using artificial intelligence, advanced analytics, and the internet of things in supply chain operations. By then, collaborative robots will support, not replace, 30% of warehouse workers, according to the analysts.

A company's failure to digitalize, automate, and transform its supply chain risk management operations is its own risk. It's a threat to procurement and supply chain teams and the companies they work for. The survival of the business is at stake.

Why Your Supply Chain May Be at Risk

When enterprises fail to digitally transform their SCRM operations, they lack transparency into their suppliers, logistics partners and hubs, service providers, and other third parties. They are less prepared to respond to the inevitable risk events. Indeed, they are not resilient when risk events strike. Consider three points of failure in a business that operates with manual spreadsheet-based supply chain risk management processes.

1. Information gets overlooked: If your (spartan) team manually or only periodically collect information on your suppliers, then they are likely to miss something critical. Risk events do not happen on set schedules. They happen in real time.

2. Information overload and analysis paralysis: Having an information hub to centralize data inputs is a good start. But how do you analyze large volumes of data, especially when it is time-sensitive? How do you make decisions based on noisy data, or incomplete data, or contradictory data?

3. Supply chain risk management is not high priority: The worst thing you could do is delay digital SCRM transformation any longer. Just because you made it this far will not save you if another Black Swan (a completely unpredictable event) comes sweeping in and puts your whole company at risk. If anything, the pandemic has demonstrated the interconnectedness of global supply chains.

Climate change, infectious diseases, natural hazards, political instability, social unrest, random acts of terrorism, labor shortages, port closures and congestion, product and commodity shortages, customer demands, regulatory compliance mandates, and supplier cybersecurity risks will force you to pay attention. But by then, it may be too late. Why wait any longer?

Consequences of Supply Chain Risk Exposure

Supply chain risk events can be catastrophic to organizations. And many experts warn that incidents will occur with greater frequency and intensity than in decades past. Consequences include:

Operational downtime

When risk events strike, operations (IT, manufacturing, shipping, among others) may need to be scaled back or halted altogether. Downtime has cascading effects for the rest of the organization.

Loss of revenue and market share

Both are natural consequences of operational downtime. The longer that that IT services, production and distribution lines are halted, the less money a company can make. In the meantime, your customers might look elsewhere.

Loss of personnel and property

Exposing staff and equipment to unmitigated supply chain risk incidents (such as extreme weather events) can have outsized effects, with danger to people and damage to property.

Regulatory risk

Failing to comply with regulatory requirements can lead to penalties or fines. Failing to provide transparency into your supply chains can result in greater scrutiny by authorities of your sourcing and procurement practices.

Reputational/brand damage

Having child labor, slave labor, unsafe working conditions, or environmental harm exposed in your supply chain can also cause customers to migrate to your competitors

As the saying goes, "An ounce of prevention beats a pound of cure." The more you do to gain advanced warning of an impending supply chain risk event, to understand its potential impacts to your organization, and to prepare mitigation plans, the more agile and resilient your organization and supply chain operations will be. **Digital transformation can provide the prevention you need.**

Evaluating Your Digital SCRM Readiness

Once you have decided to digitally transform your supply chain risk management, bring the relevant people and leaders together. Evaluate your company's governance, processes, and technology for their SCRM program readiness.

Is Your Enterprise Ready for Digitally Transforming Supply Chain Risk Management?

Use the following key questions as a guideline:

1. Have your critical supply chains been digitally mapped across n-tiers in relevant markets?

Do you have visibility into:

→ Your critical suppliers? And their suppliers?

→ The countries in which they are located?

→ The air- and seaports through which goods and services move?

→ How every node in the supply chain is connected? What relationships exist among category partners, such as geographical clusters?

→ Can you identify potential threats such as diamond risks (tier-1 suppliers who rely on the same tier-2 partner)?

2. Is it clear which departments and individuals are responsible for managing risk?

Do you have transparency into:

→ Who owns overall risk management (procurement, supply chain, enterprise risk management)?

→ How is risk management executed across products, regions, and supply chain partners?

→ Where are supply chain risk management activities imbedded?

6

3. Are risks being monitored automatically and continuously?

How comprehensive are your data sources:

$\rightarrow$ Where do you get your supply chain risk information?

$\rightarrow$ How recent is your information?

$\rightarrow$ How relevant is the data to your operations?

4. How are the impacts of identified risks quantified and prioritized?

How do the individuals responsible carry out the following:

$\rightarrow$ Immediately identify who or what in your supply chain might be affected?

$\rightarrow$ Measure potential impact in a way that is relevant to your business?

$\rightarrow$ Assess which mitigation actions should be taken?

5. How does your organization stay ahead of disruptions?

An inherent objective in supply chain risk management is to achieve competitive advantage. So, how do you:

$\rightarrow$ Anticipate and forecast potential supply chain disruptions?

$\rightarrow$ Assess their impact to your supply chain commitments?

$\rightarrow$ Initiate business continuity plans to minimize impacts to revenue and customer satisfaction?

Also discuss how digital transformation of supply chain risk management will enhance your business operations and benefit the organization in the short-, near-, and long-term. It is critical to consider budget, talent, IT, product, and any other associated elements.

Significantly, a shift in policies and processes must accompany digitalized and automated supply chain risk management. **To succeed, digital transformation needs to combine technology with strategy, and be embedded in a holistic approach for managing risk.**

Choosing the Digital SCRM Solution That Is Right for You

In enterprises that still use manual or semi-manual processes, digital transformation may seem intimidating. To increase user adoption, select an intuitive cloud-based solution that allows you to:
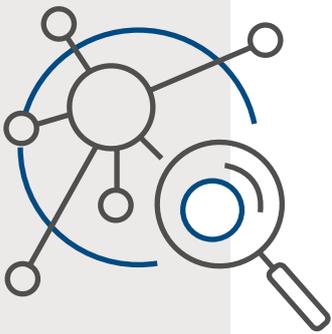
→ **Visualize your supply network on a world map.** You can immediately identify and understand the potential impact of disruption. You move from focusing on supplier-oriented risk to supply chain-oriented risk management.

→ **Rely on the power of artificial intelligence.** You receive automated alerts in real time, and only data that is relevant to you without the "noise." Use instantly available risk scores for strategic decisions such as risk management integrated into supplier evaluation, or risk assessment and due diligence prior to supplier onboarding.

→ **Embed all risk information and data into sourcing and procurement processes.** Get a total view of risk by covering all risk types: financial, man-made, geopolitical, natural hazard, reputational, cyber. Integrate external and specialized data, and embed it into supplier evaluation and risk identification efforts.

→ **Make risk information pervasive.** Teams should be able to access the solution on mobile devices, and be empowered to make data-based decisions before risk events occur.

→ **Employ advanced analytics and mitigation tools.** This allows you to analyze risk impact and create plans in advance. Have standardized formats for risk data to make reporting easier and more efficient.

→ **Gain sub-tier visibility and collaborate with suppliers.** Get transparency to detect n-tier threats. Encourage smaller enterprises to share information and collaborate on a common platform.
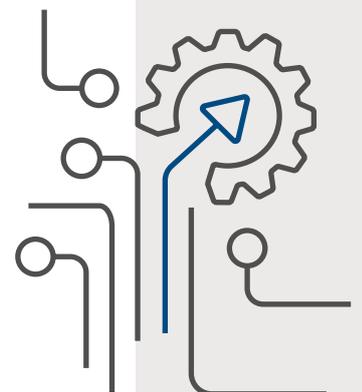
Managing Risk with Supply Chain Risk Management

Where does the data come from?

To uncover threats wherever they appear, our AI-driven service Sphera Risk Intelligence™ monitors across 300,000+ web data sources and millions of websites 24/7 in real time, including news sources, commercial and government databases. You receive early warnings of risk events, along with instant risk evaluation of your own sites, suppliers, and third-party sites. This enables you to:

Be risk aware: Protect your business. Leverage intuitive analytics to get superior insights into risk trends and vulnerabilities.

Be risk aware

React faster to any risk: A library of mitigation plans lets you better coordinate your team's actions. Advanced tools enable you to understand the impact.

React faster

Be proactive: Easily aggregate and process your risk data so you turn data into insights. Identify root causes and negative trends early on, so you can initiate measures before risk materializes.

Be proactive

With Supply Chain Risk Management, you can protect your margins, be faster than your competition, improve business continuity, and strengthen supply chain resilience.

Benefits of Digital Transformation

Digital transformation has been changing relationships with data, workflows, decisions, and outcomes for years. Procurement and supply chain management teams use digital tools, such as automated systems, connected devices, dashboards, robotics, and robotic process automation to pursue situational awareness and supply chain resilience.

Similarly, automated, digital supply chain risk management reduces time-to-decision, contributes to better collaboration, increases business agility, and drives operational resilience. Consider further benefits of digital supply chain risk management:

Creates a digital twin of your critical supply chains. This lets you immediately identify all risk objects (suppliers, sub-tiers, transport hubs, your company sites), dependencies between them, and vulnerabilities such as location "clusters."

Enables risk ownership transparency. You improve the efficiency of risk communication and action across your critical business areas, and can better support customer management.

Generates opportunities for combining real-time and latent risk intelligence. With digital processes, you automate threat collection, relevance assessment, and risk level adjustment within your critical supply chain risk universe.

Provides automated assessment of risk impacts. You receive a real-time impact criticality status across your entire supply network, so you know what to focus on first.

Moves beyond reactive to preventative. Using advanced analytics, you can identify negative patterns within cross-sectional risks and supply chain sections, so you can act faster.

Case Study

Joyson Safety Systems

Joyson Safety Systems (JSS) was founded in 2018 through the merger of two global automotive suppliers, creating one of the world's largest manufacturers of automotive safety solutions. Following the merger, JSS had to consolidate many separate enterprise resource planning (ERP) systems and siloed databases. They faced large process and technology challenges.

CHALLENGES:

Unsystematic supply chain risk management: Risk reporting was based mostly on manually consolidating downloads from regional systems or spreadsheets. This was inefficient, and increased the likelihood of human errors. Accuracy and reliability of reporting data was also questionable.

Multiple interfaces and databases: Applications that had been developed internally had different interfaces and often lacked documentation or source code. The systems offered no real-time global connection between sites. Reconciliation was very time-consuming.

SOLUTION:

JSS recognized the need to consolidate, coordinate, standardize, simplify, and digitalize all of its risk management data, processes, and systems into one solution: **Supply Chain Risk Management**. This enables JSS to counteract increasing costs and shortages, manage worsening economic and political conditions, while allowing the global organization to continue to construct a lean and competitive cost structure.

$\rightarrow$ **Full JSS case study and videos**

> **With Sphera Supply Chain Risk Management, we are able to mitigate any risk in our supply chain by almost 100% and improve the productivity of our purchasing team by more than 60%.**

Velat Özkilinc,
Executive Vice President, Chief Purchasing Officer
Joyson Safety Systems

Conclusion

For business leaders, there may never be an ideal time to begin digitalizing their supply chain risk management. But the longer they postpone digital transformation, the longer they accept the higher risk of supply chain disruption. Indeed, failing to digititalize presents its own unique risks. Digital supply chain risk management has become mission-critical and a competitive advantage.

In the future, the most valuable procurement and supply chain professionals will be able to manage risk proactively.

In short, digitalized and automated SCRM solutions enable procurement and supply chain professionals to be risk aware, responsive, and agile. Digitally transforming your supply chain risk management program need not be overly complex or expensive, or take many months to execute.

Sphera can simplify your digital transformation of the full SCRM cycle, and get you up and running quickly. We help you identify, monitor, assess, and mitigate risk, and to gain collaboration of your business partners to uncover hidden threats.

Leveraging customer-tested artificial intelligence and an innovative approach to multi-tier visibility, Sphera delivers the most accurate and comprehensive curated risk information available for establishing world class supply chain risk programs. With holistic supply chain risk management, companies realize a faster return on investment, and achieve operational resilience, business agility, and competitive differentiation.

*rismethods was acquired by Sphera in October 2022. This content originally appeared on the Sphera website and was slightly modified for sphera.com.

About Sphera

Sphera is the leading provider of Environmental, Social and Governance (ESG) performance and risk management software, data and consulting services focusing on Environment, Health, Safety & Sustainability (EHS&S), Operational Risk Management (ORM), Product Stewardship and Supply Chain Risk Management (SCRM). For more than 30 years, we have served over 6,700 customers and a million-plus users in 80 countries to help companies keep their people safe, their products sustainable and their operations productive.

sphera®

www.sphera.com

For more information contact us at:
sphera.com/contact-us

Contact us to learn more about how Sphera can help your business meet its safety, sustainability and productivity goals.

Please consider the environment before printing this document.