echelon Insurance | RiskIntel™

Supply Chain Risk Management

In an era defined by globalization, digitization, and just-in-time delivery, modern supply chains have become increasingly complex and interdependent. For Canadian businesses, particularly in manufacturing, wholesale, retail, logistics, and transportation, this interconnectivity has introduced new vulnerabilities, where a single disruption can cascade across operations. Recent global events, including escalating Canada-U.S. trade tensions and the COVID-19 pandemic, have exposed just how fragile supply chains can be. These challenges have underscored the need to treat supply chain risk as a central element of business continuity planning.

This guide is designed to help businesses identify, assess, and manage supply chain risks more effectively, focusing not just on operational logistics, but on building long-term resilience through strategic planning, supplier diversification, digital oversight, and informed financial strategies.

Impact of Recent Events on Canadian Supply Chains

Canadian supply chains have endured a series of unprecedented stress tests in recent years, each revealing different points of vulnerability. Although these disruptions stemmed from different sources, they serve as a clear reminder to business owners that even well-functioning supply chains can quickly unravel without proactive risk management.

Canada–United States trade tensions

While the initial flashpoints of the Canada-U.S. trade conflict emerged years ago, tensions have intensified following the 2024 U.S. election. Today's environment is marked by ongoing policy volatility, regulatory divergence, and renewed protectionist pressure.

For Canadian businesses that rely heavily on cross-border supply chains, this has introduced persistent uncertainty, affecting procurement strategies, shipping routes, and contractual pricing structures. Even seemingly minor administrative changes like updated rules of origin under the Canada-United States-Mexico Agreement (CUSMA) or stricter domestic content thresholds in U.S. procurement policies can force Canadian businesses to requalify suppliers, reroute goods, or renegotiate pricing.

In sectors such as automotive parts, construction materials, and food processing, these shifts are disrupting established supply relationships and requiring frequent real-time adjustments to sourcing and logistics plans.

The COVID-19 pandemic

The COVID-19 pandemic was a pivotal moment for supply chain risk awareness. Lockdowns, border closures, and worker shortages impacted nearly every sector in Canada. From microchip delays in the automobile sector to surging input costs in manufacturing and agriculture, businesses saw first-hand how global disruptions could rapidly become local crises.

Companies dependent on just-in-time delivery systems were hit hardest, with even minor delays resulting in production halts, missed delivery windows, and contractual penalties. Warehousing space became a premium commodity, ports faced record backlogs, and freight costs soared. For many, the pandemic underscored the dangers of over-reliance on single-source suppliers and highlighted the need for more robust contingency planning.

Climate disruptions and infrastructure strain

Recent climate-related events including wildfires in British Columbia and Alberta, ice storms in Ontario, and floods in Nova Scotia have added another layer of complexity. They have shut down major transport corridors, damaged infrastructure, and stranded freight. These events aren't isolated, rather, they are becoming more frequent and more costly. In response, many Canadian businesses are being forced to reassess not just who they source from, but where and how they move their goods.

Key Supply Chain Risks for Canadian Businesses

Effective supply chain risk management begins with understanding the types of exposures businesses face. Risks can emerge at any point across the supply chain, from raw material sourcing to final delivery. These risks often fall into several interconnected categories, including:

1. **Operational risk**

   This refers to the direct disruption of supply chain activities due to system breakdowns, workforce shortages, equipment failures, or transportation delays. In Canada, operational risk has been exacerbated by bottlenecks at major ports (e.g., Vancouver and Montreal), rail capacity issues, and a persistent shortage of commercial drivers. Any interruption can lead to stalled production, idle inventory, and unmet customer demand.

2. **Financial and trade risk**

   Costs can fluctuate quickly due to changes in tariffs, fuel prices, currency exchange rates, or supplier pricing. These changes can throw off budgets and make it hard to maintain consistent pricing for customers, especially if businesses rely on thin margins or long-term contracts. Businesses with cross-border exposure are particularly vulnerable to these kinds of shifts.

3. **Strategic risk**

   Strategic risk arises when a business becomes overly dependent on a single supplier, geographic region, or transportation corridor. For example, if a business relies on a single overseas supplier or moves all its goods through a single port, any disruption in that chain, whether due to weather, politics, or infrastructure failure, can leave that business in a precarious situation.

4. **Cyber and technology risk**

   Most supply chains today depend on digital systems for tracking shipments, managing inventory, and coordinating deliveries. If these systems are compromised by cyberattacks, power failures, or software glitches, it can cause delays across an entire operation. Ransomware attacks on transportation networks and warehouse systems are becoming more frequent and more damaging.

5. **Regulatory and compliance risk**

   Canadian businesses operating across borders must stay up-to-date with changing customs, environmental, and labour regulations. New mandates such as emissions reporting requirements, ethical sourcing legislation, and revised documentation standards under CUSMA can lead to shipment delays, regulatory penalties, or cargo seizures if not managed properly.

6. **Environmental and climate risk**

   Severe weather events, including floods, wildfires, and ice storms, are happening more often and with more intensity across Canada. These events can damage roads, close shipping lanes, delay freight, or destroy inventory. Businesses that don’t factor climate risk into their logistics or sourcing decisions are more likely to face unexpected losses.

Strategies for Effective Supply Chain Risk Management

Once risks have been identified, the next step is to develop strategies to mitigate and manage them effectively. Below are four key strategies that can help reduce exposure and enhance operational continuity. These strategies are most effective when implemented proactively, prior to any potential disruptions.

1. **Understand how supply chain works**

   Many businesses are surprised to find out just how many moving parts comprise their supply chain. This includes who a business buys materials from, where those suppliers get their materials, how goods are transported, and what routes are used to deliver them.

   Mapping out a supply chain from start to finish, including secondary and backup suppliers, can help identify points of vulnerability. This kind of visibility provides businesses with the opportunity to plan for alternate options before problems occur, whether it's a delayed shipment, a closed border, or a weather-related shutdown.

2. **Avoid over-reliance on one supplier or route**

   If a business depends on a single supplier, port, or transportation method, it's at higher risk if that part of the chain fails. Diversification is one of the simplest and most effective ways to build resilience. That could mean working with multiple vendors, sourcing from different regions, or using more than one shipping route.

   For example, if a business typically ships goods through the Port of Vancouver, it could consider setting up a secondary route through Prince Rupert or even a rail option. The goal of establishing relationships with multiple vendors isn't to make things more complicated, but to ensure there's a fallback if something goes wrong.

3. **Leverage technology to gain real-time awareness**

   Technology can play a vital role in helping businesses monitor their supply chains and respond to problems before they escalate. Tools like GPS tracking, temperature sensors, and inventory monitors offer real-time updates on the location and condition of goods.

   More advanced systems, such as artificial intelligence (AI) forecasting or virtual supply chain models, can help predict potential delays and simulate "what-if" scenarios, giving businesses time to act before disruptions hit. No longer just for big corporations, these tools are now affordable and scalable for most businesses looking to improve visibility and reduce surprises.

4. **Building strong relationships across supply chain**

   Managing supply chain risk isn't something businesses can do alone. It requires strong, ongoing relationships with suppliers, transportation providers, and business partners. Open communication and mutual trust are essential, especially in a crisis. Many disruptions can be handled more smoothly when everyone is on the same page and working together.

   Consideration should be made to conducting joint planning exercises, sharing key forecasts with suppliers, or collaborating with industry associations like Canadian Manufacturers and Exporters (CME) or Supply Chain Canada Association (SCMA) for benchmarking and support. Resilient supply chains are built on collaboration, not just contingency plans.

The Role of Insurance in Supply Chain Resilience

Supply chain disruptions can have an immediate impact on businesses, including slowing down production, delaying shipments, or causing missed customer commitments. While strong planning and supplier relationships are essential, insurance can serve as a financial safety net that helps businesses stay operational when things go wrong. It's not about replacing good risk management, but also making sure the business has options when the unexpected happens.

The key is to make insurance part of business continuity planning rather than an afterthought. Certain coverages, such as business interruption and contingent business interruption can provide a financial buffer if a disruption prevents a business from operating as expected. For example, if a supplier is suddenly unable to deliver a key component or a shipment is delayed due to port congestion, these policies can help cover the resulting losses or additional costs.

But coverage only works if it reflects how a business actually operates. That's why it's important for businesses to review policies regularly with their Broker, especially if suppliers have changed, operations have expanded, or new products have been introduced. Risks evolve, and so should a business's insurance coverage. Ultimately, the goal isn't just to recover from disruption, but rather to minimize downtime and protect a business's ability to deliver for their customers. When insurance is aligned with business models and risk profiles, it becomes a valuable part of a broader strategy to keep operations running, even in uncertain times.

Conclusion

Supply chain disruptions have become more frequent, more complex, and more costly. For Canadian businesses in manufacturing, wholesale, retail, logistics, and transportation, building supply chain resilience is no longer a strategic advantage, it's a business imperative.

This guide has outlined the key risks affecting supply chains today and the steps businesses can take to mitigate them. From supplier diversification to continuity planning, the most resilient organizations are those that treat supply chain management as an integrated part of their broader risk strategy.

Insurance may play a role in supporting recovery, but resilience starts well before a disruption occurs. Businesses that proactively assess, monitor, and adapt their supply chains will be better positioned to navigate uncertainty and maintain operational continuity in the face of future challenges.

References

Bank of Canada | Tariffs and trade uncertainty are hurting the Canadian economy
www.bankofcanada.ca/2025/03/tariffs-and-trade-uncertainty-hurting-canadian-economy/

Business Development Bank of Canada (BDC) | 6 steps to manage supply chain risks
www.bdc.ca/en/articles-tools/operations/purchasing/covid-19-steps-manage-supply-chain-risks

Canada's response to U.S. tariffs on Canadian goods
www.canada.ca/en/department-finance/programs/international-trade-finance-policy/canadas-response-us-tariffs.html

Export Development Canada (EDC) | Managing supply chain risks in 2025
www.edc.ca/en/events/webinar/managing-supply-chain-risks-2025.html

Osler, Hoskin & Harcourt LLP | Supply chain disruption in the face of the COVID-19 pandemic
www.osler.com/en/insights/updates/supply-chain-disruption-in-the-face-of-the-covid-19-pandemic/

PwC Canada | Third party and supply chain risk management
www.pwc.com/ca/en/today-s-issues/compliance-transformed/risks-and-value-in-enterprise.html

Supply Chain Canada | Coronavirus (COVID-19) Resources
www.supplychaincanada.com/coronavirus-covid19-resources

UBC Sauder School of Business | Climate Risks and Supply Chain Transparency
www.sauder.ubc.ca/news/climate-risks-and-supply-chain-transparency-addressing-information-gaps

University of Waterloo Climate Institute | Building Disaster Resilience across Canadian Business Supply Chains
www.uwaterloo.ca/climate-institute/projects/building-disaster-resilience-across-canadian-business-supply

echelon® Insurance