



Supply Chain Risk Management

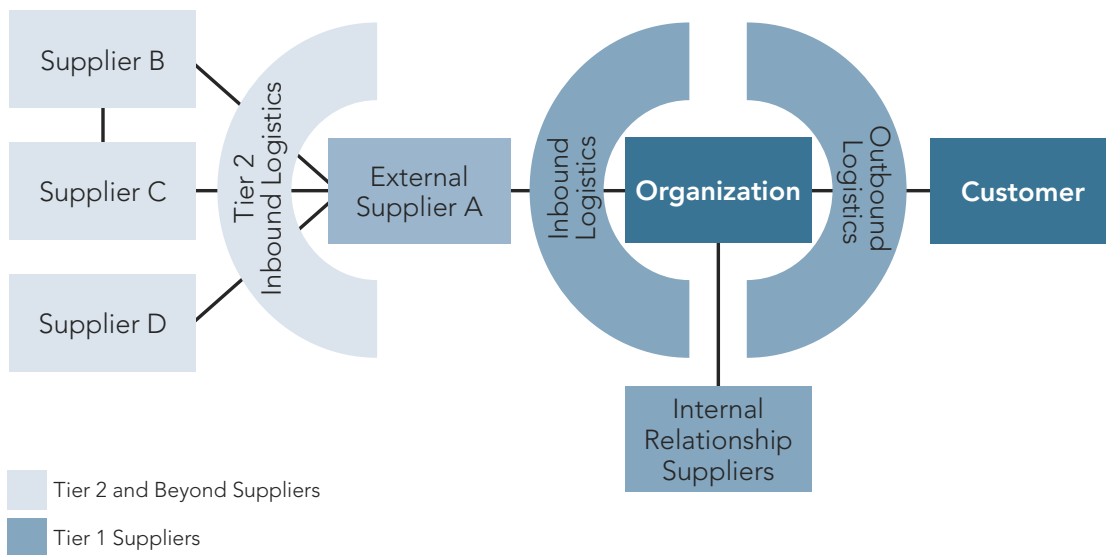


Supply chain is the “network of organizations that are involved, through upstream and downstream linkages, in the processes and activities that produce value in the form of products and services in the hands of the ultimate consumer” (ISO/TS 22318). A supply chain exists where product or service delivery depends on inputs that are not under the direct management or control of the organization. It includes both internal and external supply relationships as well as customers.



Basic Supply Chain Model

Understanding and analyzing your supply chain’s strengths and vulnerabilities are vital components of business continuity management. Consistent analysis of suppliers and customers allows an organization to understand the risks and potential impacts to the organization’s value stream. The goal is to identify potential risks and create strategies to ideally eliminate or minimize the exposure and impact to the company following a significant disruption to the value stream.



Reference: ISO/TS 22318: Societal Security – Business Continuity Management Systems – Guidelines for Supply Chain Continuity

Below are some common evaluation factors and considerations for managing an organization’s supply chain risks.

Evaluation Factors	Actions to Consider
Supplier Criticality and Process Flow	<ul style="list-style-type: none"> <input type="checkbox"/> Identify flow of commerce with dependent/interdependent locations for major (high value) product and service types. <input type="checkbox"/> Consider both outsourced and in-house production facilities and determine revenue dependency for each facility. <input type="checkbox"/> Identify the time for the vendor to restart following a disruption and time to resource supplies from alternate supplier/provider. Include time to complete regulatory requirements for supplier restart or replacement (i.e. Health Canada validation, fiduciary review). <input type="checkbox"/> Identify supplier tier levels and criticality based on impact to key factors (i.e. revenue, customer commitments, regulatory requirements).
Single-Source Suppliers	<ul style="list-style-type: none"> <input type="checkbox"/> Identify single-source suppliers, criticality, location (domestic vs. overseas) and associated products/services. <input type="checkbox"/> Identify alternative local suppliers for overseas and single-source vendors and develop supplier agreements. Use dual/redundant suppliers to reduce supply chain risk where possible. <input type="checkbox"/> Maintain adequate levels of raw materials, components and finished products. Determine buffer time for safety stock and distribute safety stock to geographically dispersed locations when feasible. <input type="checkbox"/> Consider alternate transport arrangements (air vs. shipping) and other arrangements to provide for "expedited" delivery at time of disruption to shorten period of recovery.
Supplier Resilience	<ul style="list-style-type: none"> <input type="checkbox"/> Evaluate suppliers' business continuity plan and ensure supply chain risk factors are considered. <input type="checkbox"/> Meet with critical suppliers to review continuity strategies on regular basis and update continuity plan as needed. <input type="checkbox"/> Identify production capacity at suppliers' locations to determine level of back-up production capabilities at each site. <input type="checkbox"/> Diversify critical supply sources geographically to reduce natural hazard risk and implement/review natural disaster response plans for each location. <input type="checkbox"/> Ensure that alternate raw materials and services will comply with your organization's quality standards.
Production and Equipment Resilience	<ul style="list-style-type: none"> <input type="checkbox"/> Maintain safety stock for replacement parts with long lead times for critical production equipment. <input type="checkbox"/> Implement service agreements with equipment manufacturer and identify alternative equipment/parts suppliers where possible. <input type="checkbox"/> Consider equipment/technology upgrades in your business continuity strategy to minimize the time to repair/replace machinery.
Delivery Disruptions	<ul style="list-style-type: none"> <input type="checkbox"/> Consider how raw materials arrive at your production facility, as well as how finished goods leave your facility and arrive promptly to consumer. <input type="checkbox"/> Proactively manage significant supply changes with routine monitoring of incoming/outgoing stock levels, threats of disruptions and the use of working capital to minimize impact from a disruption. <input type="checkbox"/> Identify alternate routes and transportation methods for both incoming supplies and finished products to customers. <input type="checkbox"/> Identify any contractual or regulatory penalties for failure to deliver products/services as scheduled.
Critical Customers	<ul style="list-style-type: none"> <input type="checkbox"/> Identify customers making up the largest percentage of revenue and ensure supply chain redundancies are in place for these customers. <input type="checkbox"/> Work with down-stream customers to consider an increase in safety stock where possible to enable them to endure up-stream disruptions. <input type="checkbox"/> Diversify customer base where possible.

To learn more about how to manage risks and enable business resilience, visit cnacanada.ca.