

# riskinsight

SUPPLY CHAIN ISSUE 2009



## Protecting profitability if the chain breaks

Supply chain management

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**The strategic risk manager**

Protecting profitability if  
your supply chain breaks

**A holistic approach to  
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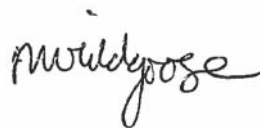
# An insider's view

Welcome to this edition of Risk Insight which focuses on the topic of mitigating risk in the supply chain, an issue on the minds of many leaders in today's economic environment.

In the highly competitive, global market of recent years, many businesses implemented cost saving strategies to maintain profit margins, including just-in-time deliveries of critical resources and components. As organizations face a major economic slump, some of those earlier savings are becoming operational weak links, especially in extended supply chains. Today, as the cost of breaks in the supply chain can have significant profit impacts on your business, active supply chain risk management needs to be an integrated enterprise performance tool. Effective supply chain management is a critical driver of profit, no matter what the size of your supplier or vendor network.

How can you protect your profitability and your reputation from supply chain breaks? To help customers better understand this growing threat, we have sought out forward-thinking experts to help develop powerful new tools for measuring and tackling these evolving risks. Our findings have shed new light on the indispensable role proactive, engaged risk managers must play in ensuring that their companies will continue to survive – and thrive – in the face of possible supply chain and other business disruptions.

We hope you enjoy this edition and find insights that will help you manage your supply chain risk.



Nick Wildgoose  
Global Supply Chain Product Manager



Nick Wildgoose is the Global Supply Chain Product Manager for Zurich and serves on the Board of the Chartered Institute of Purchasing and Supply, the world's foremost professional supply chain organization.

A person wearing a white helmet, an orange and red jacket, and grey pants is ice climbing a rock face. They are equipped with a harness, ropes, and ice axes. The rock face is blue and textured, with large icicles hanging from the top. The person is positioned on the right side of the frame, moving upwards.

The **strategic**  
risk manager




**Supply chain risk** has become a key issue on the current executive agenda. Research indicates that companies are not able to navigate intricate supply networks quickly enough to respond to the steady increase of supply chain disruptions. »



In today's challenging business environment, when the cost of breaks in the supply chain can cascade across your business, active supply chain management is an enterprise performance management tool. In 2007, AMR Research reported that 46% of surveyed companies planned to evaluate or implement supply chain risk management solutions within one to two years. While supplier failure and supply continuity topped the list of concerns, many executives rightly noted that a disruption in the delivery of products to their own customers due to supply chain disruptions would have potential downstream implications for brand reputation, regulatory compliance, product safety, and other risks. As a result, senior leaders are recognizing the need to become more aware of the spectrum of risks and uncertainties associated with modern supply chain issues.

### The vanguard

In recent months we have observed that a small minority of Zurich customers have initiated sophisticated supply chain risk strategies, which may give them a strategic advantage over competitors. Zurich has also advised some of its customers on how to implement improved supply chain risk strategies. The current financial crisis and credit crunch are acting as powerful catalysts, propelling companies along a healthier and more realistic course with regard to holistic supply chain assessment and other enterprise risk concerns.



With due diligence,  
risk managers can  
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supply chain

Risk managers, in fact, are ideally suited to assume a role that can help drive the organization along a more secure course with regard to supply chain. As more and more companies recognize the inherent weaknesses that may exist in former cost-saving strategies, they will look to risk managers for the guidance they need to change course.

### Progressive thinkers

The proactive risk manager will have a broad knowledge of the company's processes and vulnerabilities, knowledge that can help in the formulation of responses to the risks created by interdependent, global supply chains. This can enable the business to better understand its risks and to develop approaches and solutions to discover, measure and finance the mitigation of supply chain risk.

Clearly, one of the foremost goals of any strategic risk manager should be implementing reasoned strategies to keep the supply chain healthy and resilient, since unchecked interruptions can cascade across the organization to damage both reputation and profitability.

## Strategic risk managers

Risk managers should seize the opportunity to place themselves at the heart of the supply chain process, and hence the business, by putting forth the time and effort to become intimately familiar with all the components that drive this critical business process. With due diligence, risk managers can influence risk decisions made within individual functional areas of the supply chain, and further guide subsequent risk mitigation steps.

In order to steer an effective supply chain risk management process, the risk manager must persistently engage senior management, the functional supply chain managers, and other relevant internal and external parties in: identifying and prioritizing critical business profit drivers, mapping supply chain interdependencies, and locating potential failure points along the supply chain.

To minimize disruptions and to keep pace with the dynamics both inside and outside the organization, risk managers must embed risk management practices into all mission-critical points along the supply chain. As risk managers become integral players in the supply chain, they should appoint multiple 'operational risk managers', integrating a variety of risk analytical tools and modeling techniques into the standard supply chain metrics. This will enable risk managers to quantify supply chain risks, providing a solid foundation for the overall risk and business continuity strategy.

## Essential educators

By training supply chain personnel and finance staff in enterprise risk management techniques, risk managers empower supply chain managers to distinguish successfully between the competing priorities of cost-effectiveness and enterprise-wide risk exposure.

The heavy pressure placed on supply chain managers to reduce costs encourages them to adopt schemes like just-in-time inventory, for example, which run counter to the traditional risk-control promotion of system redundancies. It is easy for supply chain managers to overlook the risk management implications involved in enlisting low-quality vendors or high-volume sources rather than multiple sources. On the other hand, effective supply chain managers generally concentrate on the total cost of ownership which means they would integrate the principles of risk management into every decision.

### Are you up to the task?

The ultimate goal of an effective and comprehensive supply chain risk management strategy is to embed risk awareness into every core element of the organization, from the executive team to the business managers, across the various supply chain functions.

Comprehensive supply chain risk management plays a vital strategic role in the resilience and growth of a successful business, protecting its most valuable assets, while creating a unified and high performance profit and risk mitigation model.

Many corporations aspire to this goal, but it will require risk management advocates of exceptional determination and skill to make it a reality.

# Protecting profitability if your supply



Linda Conrad is Director of Strategic Business Risk Management for Zurich Risk Engineering North America. She serves on the Supply Chain Risk Leadership Council and the Enterprise Risk Management Roundtable.





# chain breaks



## Global growing pains

In a global economy, the chains linking suppliers, manufacturers, distributors, and retailers are longer and more complex than ever.

A mishap suffered by a supplier on the other side of the world can shut down your operations as surely as if it happened in your facility. The challenges of managing an increasingly complex network of suppliers and vendors can threaten business resilience and create new challenges for enterprise risk management.

The past twenty years of rapid globalization, particularly in manufacturing, have created continual change in the supply chain across all operational functions. Trends such as offshore manufacturing, global outsourcing, and lean sourcing, among others, are creating complex supply chains with fragile links that suddenly dissolve, producing disruptions of mounting severity. »

## » How deep are your pockets?

A report published in CPO Agenda showed that nearly 800 Chief Executives reported they did not achieve 2007 financial targets due to supply chain disruption. Historically, supply chain business interruptions cause roughly 10% lower sales and 11% higher costs compared to industry peers. These impacts can last up to two years, and many companies never recover.

The Procurement Strategy Council, a global organization based out of Washington D.C., reported that supply chain disruption alone caused individual businesses an average annual revenue loss of eight million dollars, while companies hit the hardest suffered losses topping 38 million dollars. Even those numbers, however, do not approach the full financial impact of supply chain incidents.

Other costs are difficult to measure, yet potentially more devastating overall: management time consumed in solving disruption issues, permanent client loss after customers have been forced to find alternative sources, and reputation damage.

### Supplying insight where needed

On behalf of our customers, Zurich has allied itself with the leading international research teams and academics to analyze in detail the supply chain disruptions of the last five years. We are continuously updating our database with a classification system of disruption types that

can offer insights and early warning signs into potential causes of business interruptions and their consequences.

A recent edition of Risk and Insurance magazine stated that the number of countries with supply chain vulnerability increased from 38 to 53. Risks affecting this change include government embargo and interference with a supplier, strikes, terrorism and sabotage. For a number of years, Zurich and the Global Risk Network have produced widely quoted reports on global risks for the World Economic Forum. Zurich has now developed the Zurich Risk Room to assess 24 global risks and the effects of their changes for 160 countries. This dynamic tool offers a conceptual and analytical framework to visualize and analyze the overall risk characteristic of countries and produce 'heat maps' for individual risks and their correlations.

Zurich's research is ongoing, as we attempt to track everything from political upheaval to natural disasters, funneling down to the finer points of individual supplier solvency. We have already identified triggers such as supplier insolvency and capacity shortages in approximately one quarter of the cases. Two broad factors will continue to play a major role in thwarting supply chain stability: natural disasters and logistical failures that strike indiscriminately across industrial sectors and the radical increase in supplier insolvency in the floundering economy.

## Forewarned is forearmed

Increasing supply chain resilience is a major component of improving enterprise sustainability. The fact that organizations only publish supply chain failures when they can no longer keep them private can only serve to highlight the drastic rise in recorded events as merely the tip of the iceberg, an unmistakable warning to shrewd executives to act now to isolate and eliminate risk in their supply chains.

## Supply chain assessment benefits

- Facilitates appropriate optimization of your supply chain activities, which are key profitability drivers
- Builds a framework for ongoing supply chain analysis, using a repeatable approach
- Provides greater understanding of the supply chain vulnerabilities covering both likelihood and severity
- Quantifies scenario-based financial impact figures for potential disruptions
- Identifies and prioritizes mitigation actions
- Puts risk insights into specific aspects of a supply chain, including areas of residual risk
- Increases transparency and rational supply chain decisions through risk understanding
- Provides benchmark information for evaluating improvements
- Enables proactive alerts of the risks faced, through development of a Business Continuity Management plan

- Assembles and presents supply chain exposure information in a single data model, when using Supply Chain Risk Assessment results to feed our proprietary Business Interruption Modeling software and drive continuity plans
- Helps manage enterprise resilience and maximizes strategic growth opportunities

### Identify key suppliers, quantify critical activity, solidify value chains

The strategic importance of optimizing your supply chain presents an unprecedented challenge and opportunity to businesses. Zurich's assessment will help expose and address vulnerabilities that could inhibit both your company's adaptive capacity and expansion ability. By defining your largest potential business interruption impacts and monitoring suppliers, you can make better risk-based strategic decisions and design a 360 degree business continuity and growth plan to help protect your people and your profitability.





# The impact of supply disruption

There are an increasing number of incidents which provide insights into the nature of supply chain disruptions. Here are a few examples:

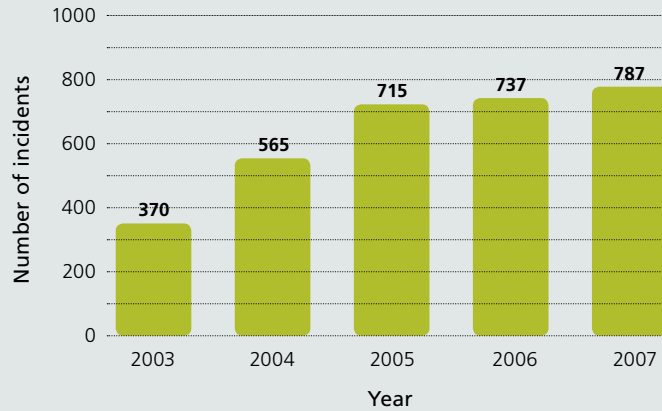
- An international electronics company maintained a single source of supply for a critical component. After a fire at the supplier's plant, the company lost \$400 million in sales, and subsequently had to shut-down an entire business line.
  - A fire at a plant in South Korea contributed to a shortage of notebook computer batteries and slowed market growth for ultra low cost notebook computers and ultra-mobile personal computers.
  - A petrochemical company suffered a three month delay to the start of a \$2.8 billion oil project in Brazil because the delivery of the platform and rig fell behind schedule.
  - An international consumer electronic goods manufacturer/supplier experienced manufacturing issues at a plant producing a key system component, resulting in a three month delay in a new product launch in Europe. This led to a reduction in profit targets from 130 billion yen to 80 billion yen.
  - The shutdown of the West Coast ports due to a dockworkers strike caused, among other disruptions, a major automobile plant to be idle while parts were flown over.
  - Earthquake damage to a Japanese factory supplying piston rings to 8 of the 12 Japanese car manufacturers disrupting production for three weeks.
- Zurich has captured a database of over a thousand incidents that have taken place over the last 5 years working with a third party research organization.

## Consequences of supply chain failures

When a needed supply is not received when it is expected ...or the quantity is less than expected ...or the quality is not up to standard, the consequences are not only a loss of sales and profits. Supply chain disruptions can also have a number of other adverse consequences including:

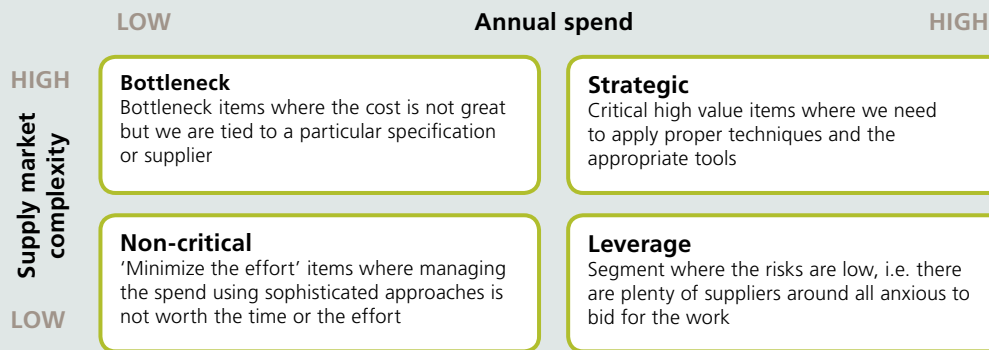
- Loss of customers
- Damage to image, reputation or brand
- Reduced share price
- Higher cost of capital
- Inability to maintain customer services
- Failure to meet legal or regulatory requirements
- Delays in projects, products or other strategic growth plans
- Lower employee morale

## CEO statements where supply chain incidents negatively impacted results



Procurement Strategy Council article published in the CPO Agenda Winter 2008

## Typical mapping of company suppliers



Supply Chain Directors will focus on the strategic and bottleneck areas. This is also the area you need to consider in terms of risk analysis. The vertical axis indicates the degree of market complexity whilst the horizontal axis represents the spend. This analysis was originally derived by a McKinsey consultant. In carrying this out, the key focus of the work came from a risk perspective although it has subsequently been used as the basis of a lot of other analysis.


# Procurement risk management: Evolution in action

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Much has already been written about external supply chain events which might disrupt the enterprise, but hardly anything about internal risks. An over-emphasis on 'events' takes the eye off a bigger issue, namely that the ultimate goal of risk management is to protect not just operational continuity but also the financial viability of the enterprise.

Whilst the former is certainly vulnerable to external disruption, it is in the company's internal processes that the origins of significant financial risks can be found. Addressing internal issues such as behaviors and procedures are just as important as external events if all risks are to be effectively managed. This includes getting back to basics which, if overlooked, expose the company to risk. You need to ensure you are casting your risk catching net wide enough.

### Origins of risk

The ability to react swiftly to events is still necessary but no longer sufficient to optimize your supply network or business continuity.

Today, the complexity of modern supply chains and the speed with which problems can materialize mean that comprehensive risk identification is the pre-requisite for successful Supply Chain and Procurement Risk Management (PRM). A thorough risk identification process focuses on five distinct risk landscapes, two external and three internal. Outward looking scrutiny focuses on two areas:

#### **1 External dependencies:**

e.g. supply chain robustness; supplier viability; regulatory and reputational context.

#### **2 Market conditions and behaviors:**

e.g. competitiveness and capacity.




» However, the missing links in PRM's evolution often lie inside the company. Therefore, the three internal risk landscapes are procurement process, management controls, and the ability to handle unexpected events through contingency planning and other measures.

**Procurement process** covers all activities from developing and specifying a business need, up to and including committing to a supplier to satisfy that need. This risk landscape includes the information systems and decision-making tools which support the process.

#### Examples of potential risks are:

- 1 Inadequate assessment of total cost of ownership including the cost of risk
- 2 Insufficient risk and market analysis of competitive dynamics, capacities, cost drivers



Recent research estimated that companies in the United Kingdom were paying £1 billion too much, overspending their budgets as a result of poor purchasing decisions.

Defective procurement processes tend to increase risk exposure rather than mitigate it. Recent research estimated that companies in the United Kingdom were paying £1 billion too much, overspending their budgets as a result of poor purchasing decisions. There is no evidence to say that this is uniquely a local British problem, but is likely a systemic budget issue plaguing companies globally. Further, it was found that 74% of industrial and commercial contracts were finalized only three months before contract completion. The financial and operating performance of companies during this period would have been exposed to a number of supplier-related incidents.

- 3 Release of information which reduces bargaining/purchasing power
- 4 Over-specification; insufficient standardization
- 5 Inappropriate 'market approach tactics' and corrupted bid responses based on inadequate market intelligence
- 6 Biased selection of 'three-bid invitees' and over-reliance on favored suppliers
- 7 Flawed contract strategy with potential contract loopholes
- 8 Extended contract terms; single-sourcing and just-in-time delivery agreements
- 9 Geographic aggregation of suppliers that expose business to geopolitical threats



**Management controls** concern the principles, procedures, authorities, checks and balances etc. that the company should embed to guide and influence peoples' business behaviors. When these management controls are insufficient, additional risks can lurk across the enterprise. In 2005, the Office of Fair Trading in the UK encouraged whistleblowers to highlight corruption in supply chain. This advice was obviously taken to heart as, later in that year, the buyers in two London boroughs were in the news for 'taking payments.' There are a number of examples where internal control failures have significantly impacted organizations. This is where appropriate controls should have existed in the first place.

**Examples of potential risk situations are:**

- 1 Unofficial and unauthorized commitments to contract
- 2 Insufficient policies to prevent internal fraud
- 3 Unworkable procedures
- 4 Corrupted tender evaluation
- 5 Invoices paid twice or not at all; payment for goods not received
- 6 Unchecked price increases; failure to benefit from volume price-breaks
- 7 Flawed authorization of contract changes and claims; under-compensated losses
- 8 Mismanagement of trade credit process and expenses

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**Handling the unexpected** covers the company's ability, or not, to cope with unexpected events so that it survives such disruptions, and is then able to resume progress towards its goals.

**Examples of potential risk situations are:**

- 1 No updated strategy and comprehensive Business Continuity Plan to act as frame of reference for dealing with unexpected interruptions in strategic suppliers and supply chains
- 2 Ad hoc reactions to events which diminish public confidence in the company's management
- 3 Delayed or deficient responses which allow better-prepared and practiced companies to secure competitive advantage
- 4 Rigid, autocratic management styles which inhibit company personnel at ground level from using personal initiative and expertise, within the bounds of the enterprise risk appetite
- 5 Insufficient 360 degree identification and quantification of potential business disruptions which enable prioritization of the most efficient risk mitigation and transfer activities

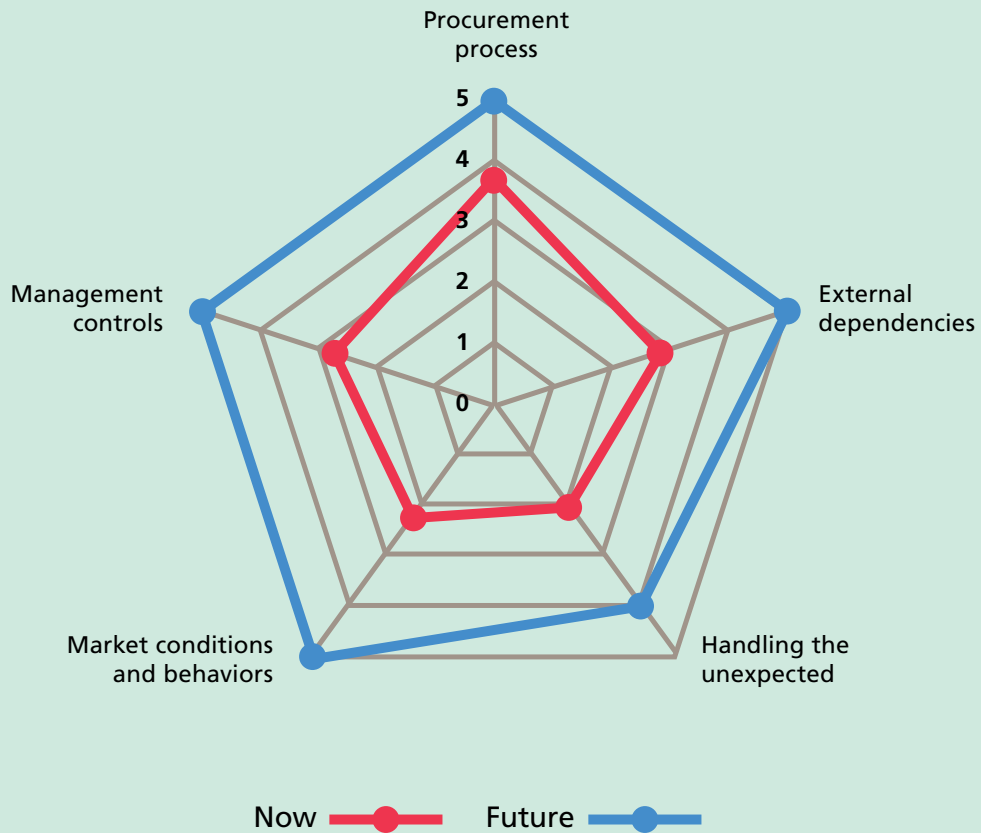


» There are many tools available to display risks associated with an enterprise, for example heat maps and risk lists. In this article, we have used a 'risk catcher'. The five risk landscapes can be put on the same map (see figure 1, the 'Risk Catcher'). The data in this figure were compiled during a small survey of companies' PRM preparedness. The red line represents perceived current status and the blue line their future intent. Closing the gap between the two profiles is the subject of PRM improvement plans, which will yield strategic benefits across the business.

The Risk Catcher is designed to keep the total enterprise risk management horizon in view, and the search process comprehensive. Importantly, this holistic approach brings different risk specialists out of their silos of operation. For example, 'management controls' is often the province of the company's Chief Internal Auditor; 'handling the unexpected' the concern of the Risk Director; and 'external dependencies' the focus of the Chief Procurement Officer. These three do not often meet, but some joint Risk Catching gives them the reason to do so. The result of a shared risk analysis will be superior to the sum of its parts, bringing the bonus that non-procurement people have their eyes opened to the risks and opportunities presented at the supply side of the business.

The Risk Catcher keeps the total enterprise risk management horizon in view and the search process comprehensive

**Figure 1**  
The Risk Catcher



How well equipped do you feel your organization is to deploy an integrated risk management process? Here are some self-assessment questions. You can plot the results on the Risk Catcher.

Assess PRM-preparedness by testing against the following criteria  
(1 = low, 5 = high)

### Procurement process

- 1** = Procurement is non-existent as an identifiable defined process in the company.
- 2** = Procurement behavior is streetwise and deal-oriented but with little structure or functional influence. Internal IT systems offer visibility of the supply chain.
- 3** = Procurement activity is procedures-oriented and focused on internal customer service, yet responsive to need.  
Requisitions (timing and quantity) are driven by the company's daily operations' planning system.  
IT systems have basic supplier information feeds and basic risk models are in place.
- 4** = Procurement activity relies heavily on leverage and muscle-power.  
Requirements are defined by the planning system and/or by commercially sensible considerations.  
Decision-making is supported by analytical tools and an effective information system infrastructure.  
IT systems provide real-time feeds on the status of goods within the supply chain.
- 5** = Procurement is a core cross-company process integrated into the company strategy and designed to maximize sustained shareholder value. Comprehensive costed risk models are maintained and frequently updated.

### External dependencies

- 1** = Orders and contracts are 'casual' or ad hoc and are usually on suppliers' terms and conditions.  
Purchases are often made by 'non-purchasing people' with few, if any, records of transactions made.
- 2** = All suppliers are treated the same way, although some get more attention than others.  
Activity is 'today' orientated.  
There is a legal basis for contracts placed.
- 3** = Supply chains are generally understood and selective contracting strategies are used.  
Few, if any, contract loopholes exist and supplier performance is monitored.
- 4** = Key supply chains are understood in detail.  
Supplier relationships vary from 'arms-length' to 'close collaboration'.  
Vulnerability Analyses have been completed and contingency plans are in place.
- 5** = An active and productive Supplier Relationship Management program is in place.  
Comprehensive supply risk management is in place.

## Management controls

- 1** = Nothing is codified ... all decisions and actions are 'intuitive' and/or require top level approval.
- 2** = Basic business standards, principles and policies are defined.  
A framework for Authority Delegation may exist but is most likely to be out of date.
- 3** = As 2 but the policies and authorities are regularly reviewed and updated.  
Specific controls are defined which relate to the procurement process.  
Functional authorities are clearly specified (in terms of purpose and clarity).
- 4** = As 3 plus authorities are substantial and reflect an empowered, skillful culture.  
Procurement emphasis is on acquiring best total return on acquisition costs.
- 5** = As 4 plus procurement policies are all-embracing, i.e. they apply to all company personnel.

## Market conditions and behaviors

- 1** = The customer company (i.e. yours) generally feels helpless and is glad to get what they can.
- 2** = The customer company is vulnerable to supplier sales tactics.  
Deals are the supplier's standard offering, but may be cosmetically enhanced to please the buyer.
- 3** = Market distortions are understood and effectively counteracted.  
Fundamental drivers of supply costs are understood and trends are monitored.
- 4** = Measures are in place which reflect awareness of the possibility of fraud and unprincipled supplier behavior.
- 5** = For key requirements, strategies are in place to influence supply markets and to elicit desired market responses (e.g. Reverse Marketing).

## Handling the unexpected

- 1** = We know that the unexpected can happen but it is hoped that it will not.
- 2** = 'Logical' contingency plans are in place but tend to be specific to a contract.
- 3** = Comprehensive PRM is in place. By definition this includes strategies and contingency plans for all identified critical suppliers in terms of profit impact.
- 4** = The company organization exhibits the characteristics of High-Performing Teams and is agile yet goal-oriented when addressing unforeseen events.  
IT systems monitor numerous aspects of the supply chain over and above materials' flow.  
Examples are supplier solvency and natural catastrophe alerts relevant to the supply chain.
- 5** = No one can predict everything that might happen, but your enterprise can be more resilient to disruption through embedding a robust continuity plan.

# Supply chain risk management: A holistic approach

**What keeps global risk managers awake at night?** One increasingly critical area of concern is managing the risks created by complex supply chains.

It is not just the headlines, such as pandemics and cyber risk, but also the less obvious and perhaps smaller supply chain incidents that can prove financially and operationally disruptive.

**What is supply chain risk?**

Supply chain risks describe inherent vulnerabilities in the supply chain, whether internal or external, which threaten the success, reputation and value of a business. Research attests to the substantial long-term effects of adverse events on share price: up to a 40% decline of supply chain disruption over a three-year period, according to the recent study of 800 cases by Hendricks and Singhal.

**How can risk managers prepare for supply chain interruption?**

Building on an exhaustive knowledge of their industry and its operating risks, risk managers must identify and understand the cross-functional issues in the supply chain, and then formalize a structured risk management approach to disciplines not habitually subject to such procedures.

**Striking a balance: How far should the supply chain be streamlined?**

For example, should a risk manager pursue efficiency and cost savings through a single-source supplier policy, and if so, what is the risk of failure? Supply base and inventory levels may be reduced, but how much buffer stock is necessary? Clearly, the approach must align with the needs of the business, to ensure that steps are taken to drive

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cost out of the supply chain, not to drive risks in! Understanding the issues in terms of risk appetite will facilitate strategic decisions and allow the options to be priced and balanced against the resilience risks.

## Assessing the risk

What are the chief risk factors and difficulties, and how far up and down the supply chain can they be addressed? A structured approach will ensure a rigorous assessment while enabling a focus only on those areas of risk with the greatest priority.

The first step in optimizing the value of your supply chain value is assessing your risks and knowing what you have to lose – which is exactly how a Zurich supply chain assessment can help. Based on analyses per supply and supplier, Zurich's holistic Supply Chain Risk Assessment calculates the anticipated loss of profit and/or the increased cost of operation in the event of a supply chain interruption or reduction.

### **A Zurich supply chain assessment and mapping will help you understand...**

- The quality of your current supply chain risk management planning
- The quantifiable estimated financial impact on your enterprise of a disruption in your supply chain
- Potential improvements you can make in your supply chain management processes and procedures to help protect your profitability should the chain break
- Your total cost of ownership for goods and services so that you can maximize shareholder value

### **And strengthen the links in your supply chain by...**

- Building a framework for the study and analysis of your supply chain
- Providing scenario-based financial impact figures for potential disruptions
- Presenting supply chain exposure information in a single data model by incorporating the information into our proprietary Business Interruption modeling
- Creating a basis for more holistic, strategic decision making and communication
- Enabling efficient planning, resource and capital allocation across your enterprise

## Mapping the interdependencies

Because companies rely on suppliers for information, essential elements such as critical supplies and distribution nodes often remain hidden, obscuring interdependencies.

Communications are frequently missing between procurement teams and other business functions. Introducing a standard risk perspective will involve all critical functions and layers of management in uncovering the areas of greatest weakness.

## Developing Solutions

Managers must implement operational changes, a re-evaluation of supplier strategy, or risk transfer to address crisis potential. Zurich can help you develop and even model supply chain and other business interruption scenarios unique to your business operations then help you quantify them, so you can prioritize your improvements and contingency planning for the areas of greatest business impact. »

» Zurich has defined a three-step solution to supply chain risk:

**Step 1: Evaluation and Quantification**

Management must first set priorities, distinguishing critical suppliers not merely on the basis of monetary value and volume, but also considering the bottlenecking potential of essential missing components. It is imperative to ascertain the threats posed in the macro environment, such as the likely effects of trade embargoes, strikes, commodity shortages, natural catastrophes, political disruptions and supplier concentrations.

The expert risk manager knows every process involved in the management of the supply chain network, and can evaluate systematically all vulnerabilities, associated event triggers, and their consequences. For example, he will ensure company vigilance in monitoring and approving suppliers, even spotting risks along the supply route such as theft and sabotage.

The level of risk management control must be evaluated in key areas:

- Product management and new product development: To what extent could rapid market change or new product development increase the chance of supply disruption?

- Supplier selection management: Do the sourcing strategy and supplier selection processes include a thorough assessment of supply risks?
- Supply chain performance: How carefully is supply chain performance monitored and managed?
- Business interruption modeling and business continuity management (BCM): Are preparations for unforeseen business disruptions sufficient?
- Commercial contract management: Are supplier contracts managed effectively?

Yet another fundamental element of risk remains: How well do the suppliers manage their own risk? This is difficult to discern in supply chains with multiple tiers, but risk managers can examine: how efficiently the supplier manages his own supply chain; the supplier's level of experience; how precisely the supplier manages his own labor force and intellectual property. Companies also do well to cultivate supplier relationships: In the event of a disruption, will the supplier give priority to competitors in the restoration of supply?



### Step 2: Resilience

Reputation, brand and shareholder value affect the resilience of the business nearly as much as revenue. Regular review and testing of recovery plans, extending beyond the organization to include other key players along the supply chain, will enhance the effectiveness of business continuity management.

In the worldwide financial crisis and recession, supplier bankruptcy is an imminent peril. It is therefore incumbent on businesses to understand the risks at every single juncture of the supply process, and likewise institute measures to respond to the potential failure of a critical supplier.

### Step 3: Optimizing and protecting profit

Companies have traditionally employed contractual devices and limited insurance coverage to transfer risk, while outsourcing has gained widespread popularity in recent years. Clever risk managers know that risk does not disappear just because someone else is managing it; where subcontractors and suppliers do not carry all the risk, potentially vast exposure still lurks on the balance sheet.

Practical supply chain risk management actions can be combined with new supply chain insurance products that cover specific supplies and suppliers for a broad range of risks. In this way, organizations can help protect their balance sheets from the impact of supply chain events by traditional risk management allied to a novel insurance risk transfer.

## Summary

**By approaching the challenges of supply chain management systematically, companies develop a sound basis for risk evaluation, creating strict benchmarks to gauge both internal divisions and external suppliers. This detailed risk assessment provides a wealth of benefits, including: insight into necessary operational improvements, robust evaluation of critical risk areas, isolation of supply chain exposures, and an informed risk transfer strategy. As more businesses realize that driving cost out of the supply chain frequently drives risk in, risk managers must reach across functions to reduce, eliminate or transfer risk, and thereby mitigate potential loss.**



Zurich **Help**Point

Supply chain  
healthcheck

1. Do you know who your critical suppliers are and how much their failure would impact your company's profits?
2. Have you fully mapped your critical supply chains downstream to the raw material level and upstream to the customer level?
3. Have you integrated risk management processes into your supply chain management approaches?
4. Do you have routine timely systems for measuring the financial stability of critical suppliers?
5. Do you understand your tier 1 production facilities and logistic hub exposures to natural catastrophes?
6. Is supply chain risk management integrated into your enterprise risk management approach?
7. Do you record the details of supply chain incidents and the actions you have put in place to avoid future incidents?
8. Do your tier 1 suppliers have business continuity plans that have been tested in terms of their viability?
9. Have you provided risk training to your supply chain management team?
10. Is risk on the agenda at performance meetings with your strategic suppliers?

1	<input type="checkbox"/> Yes	<input type="checkbox"/> No
2	<input type="checkbox"/> Yes	<input type="checkbox"/> No
3	<input type="checkbox"/> Yes	<input type="checkbox"/> No
4	<input type="checkbox"/> Yes	<input type="checkbox"/> No
5	<input type="checkbox"/> Yes	<input type="checkbox"/> No
6	<input type="checkbox"/> Yes	<input type="checkbox"/> No
7	<input type="checkbox"/> Yes	<input type="checkbox"/> No
8	<input type="checkbox"/> Yes	<input type="checkbox"/> No
9	<input type="checkbox"/> Yes	<input type="checkbox"/> No
10	<input type="checkbox"/> Yes	<input type="checkbox"/> No

### Your supply chain 'Health Indicator'

#### How many 'Yes' answers did you score?

8-10 – You probably have a good understanding and control over the risks you face

5-7 – You may have a number of key gaps which could impact your reputation or profitability

3-4 – How are you sleeping at night?

0-2 – Good luck

If you would like to discuss how to better manage your supply chain risk, please contact:

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