New Software Tools to Manage Risk and Disruptions: Part II - Article fr... http://www.scrm.com/article/new_software_tools_to_manage_risk_and_d...
New Software Tools to Manage Risk and Disruptions: Part II

This is the second of a three-part feature on the current framework for classifying risks and the ongoing efforts to mitigate them.

By Yossi Sheffi, Bindiya Vakil, and Tim Griffin

March 29, 2012

Editor’s note: This is the second of a three-part feature on the current framework for classifying risks and the ongoing efforts to mitigate them.

During 2010-2011, there have been several efforts to develop tools to help companies identify risks and respond to them. These include software companies developing applications, in-house development of supply chain risk management processes and consulting services centered on risk management and resilience.

Examples of in-house company-developed software include applications developed by IBM, Cisco and ATMI. Software companies developing software (and possibly related consulting services) include Razient Inc. of Miami, FL, Resilinc Inc. of Fremont, CA, MetricStream of Palo Alto, CA and Impact Factor Inc. of Princeton, NJ.

Several companies providing supply chain event management applications have also geared their offerings to risk management. Such companies include Trade Merit Inc. CDC Software, Manhattan Associates, and others. In addition, many consulting organizations have developed supply chain risk management practices, assisting companies in assessing the risks and developing prevention and mitigation measures. Examples include Price Waterhouse, JLT Specialty Limited in the UK, Marsh Risk Consulting, Capitol Risk Concepts Limited, LMI and scores of others.

These software applications are based on using product movement visibility and comparing it to product movement plans. When a shipment does not hit a milestone – say it is a day late into certain port, an alert is triggered. Such alerts can be very useful for recovery and resiliency but (i) they mostly deal with small events of late or missing individual shipments and not with events that pose large risks and (ii) the alert sent may be too late as it reveals a supply chain failure rather an impending problem. Such applications may have some use in tandem with specialized supply chain risk management applications to identify potential larger problems.

Most of the software applications under development for supply chain risk management try to operate in two time frames: planning and operations. In the planning mode these software applications use the two traditional axes framework likelihood/impact. In the operational mode they do not try to assess the probability or the likelihood of detrimental events; instead the approach is focused on the other two dimensions of the risk framework depicted in Figure 3: detectability and severity. In both modes these applications look at suppliers and the risk to a company from a supplier failure to deliver raw material or parts (as well, of course, as a failure in one or more of the company’s facilities). To this end, most of the applications mentioned above are based on the following data sources:

- Plant location of the Company plants as well as its suppliers (Tier 1+), and identification of risks inherent to those locations, whether geopolitical or natural disaster.
- Supplier response to various questionnaires assessing the business continuity capabilities of the supplier. These include suppliers’ characterististics, compliance with various government and industry regulations and initiatives, such as the suppliers’ risk management processes, their C-TPAT compliance, insurance requirements, achievement of ISO 14000 standard for environmental stewardship, etc.
- Financial strength assessment of the supplier collected from questionnaires and public sources
  - Product information
  - Which part is supplied by what supplier and at what plant are the parts produced

Most of the software applications mentioned above are based on the following data sources: public sources

Follow us on Twitter, Facebook or RSS

<table>
<thead>
<tr>
<th>Subscribe to our free, weekly email newsletter!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your email address</td>
</tr>
</tbody>
</table>

Latest White Paper

ERP and the Cloud: What You Need to Know
What is all this hype about cloud-based ERP implementations?
View more white papers

Latest Webcast

Freight Market Intelligence: A Better Way to Control Transportation Costs
In this webcast, discover how global food and beverage leader, PepsiCo, leveraged freight market intelligence in their $500+ Million US transportation network to mitigate volatile freight rates and remove risk in their annual freight spend. By utilizing freight rate benchmarks and predictive analytics, PepsiCo was able to improve their logistics sourcing program and optimize carrier selection to affect better overall transportation plans.
View more webcasts

From the Institute for Supply Management

Institute for Supply Management’s NMI hits highest level since January 2011
The January NMI—at 57.3—is up 0.5 percent over January and is at its highest level since reaching 58.3 in January 2011.

ISM November non-manufacturing report shows growth for 24th straight month
ISM October non-manufacturing report is nearly identical to September, still growing
ISM October manufacturing report is down from September but showing growth
ISM non-manufacturing data shows growth for the 21st straight month

View more from ISM
o Material Requirement Planning-based information and supplier files for each product in order to identify the plants and suppliers responsible for each part and which product it goes into
o Sensitivity information regarding impact on the company and its customers of disruptions from product deliveries
  • Incidents information
o Historical data about frequency of disruptions of various kind by geography and time of year
o Real-time potential disruption information.

These data are taken from news reports and specialized sources regarding events around the world.

The final installment will address “Planning and Operations”

Subscribe to Supply Chain Management Review magazine

Subscribe today. Don’t miss out!
Get in-depth coverage from industry experts with proven techniques for cutting supply chain costs and case studies in supply chain best practices.
Start Your Subscription Today!

Recent Entries

Small and Midsized Manufacturers Continue Growth and Expansion
CFOs anticipate increase in revenues and new orders, and plan capital investments and hiring

PwC Finds “Critical” Need for Younger Supply Chain Managers
Workforce development in the global transportation and logistics arena is failing to keep pace with anticipated demand

Taking a Look at Current Ocean Cargo Contracting
In an ongoing effort to keep readers informed on the current state of ocean cargo shipping and contracting, Logistics Management (a sister publication) conducted a brief interview with one of the founders of Catapult International, a leading edge international shipping software and consulting firm

New Software Tools to Manage Risk and Disruptions: Part III
For real-time alerts, companies do not assess disruption probability

New Software Tools to Manage Risk and Disruptions: Part II
During 2010-2011, there have been several efforts to develop tools to help companies identify risks and respond to them

Article Topics

News · Management · Supply Chain · Risk · All topics

0 Comments

Post a comment
Commenting is not available in this weblog entry.

SPONSORED LINKS

FREE subscriptions · Sign up for more magazines & newsletters from Peerless Media
Supply Chain Resource Store · Access research, books, back issues and more!
Subscribe to Supply Chain Management Review · 7 issues per year, exclusive access to digital archives

Subscribe to Magazine · Subscribe to Newsletters · Advertise · Contacts · About Us · RSS Feeds · Reprints · Privacy