



Supply Chain Risk Management

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Supply Chain Disruptions

Order status:

“Your shipment is waiting to be released...”





Supply Chain Disruptions

Order priority:

“Looks like your order has been bumped...”





Today's Realities...

What leads to today's levels of higher risk exposure?

- Uncertainties of supply and demand
- Shorter product technology life cycles
- Globalization of the supply chain
- External Events
- Changes in business strategies
 - Lean Practices (Agile)
 - Outsourcing
 - Supply Base Reduction



- **Supply Chain Disruption Definition:**
 - **Unplanned and unanticipated events that disrupt the normal flow of goods and materials within the supply chain**

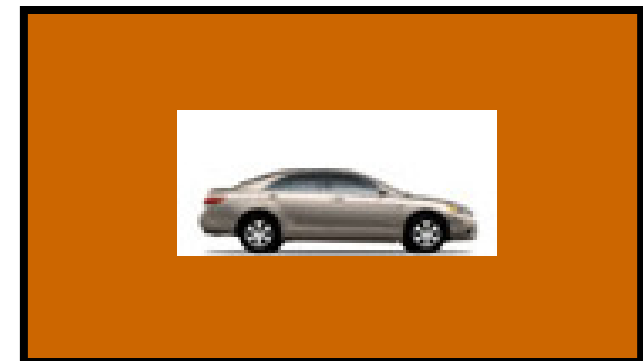
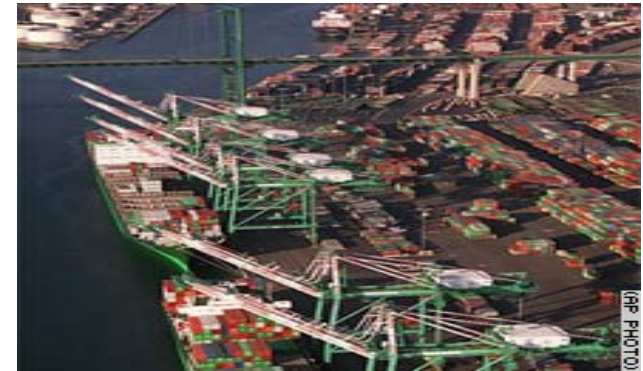
- **Perspective:**
 - **All supply chains are inherently risky... sooner or later a disruption will occur**





- **2002 West Coast port strike disrupting operations for up to 6 months...**

- **Examples in the news...**
 - **Katrina in 2005**
 - **Japan Quake 2007**





What is are disruptions costing firms??

- General Motors (1996): 18 day labor strike at a brake supplier factory in 1996 led to a reduction earnings of \$900 million.
- Boeing (1997): supplier delivery failure of two critical parts led to loss of \$2.6 billion.
- Ericson (2000): 10 minute fire at a Phillips plant led to a loss of \$400 million because it did not receive chips in time.
- **Even beyond immediate losses...**
 - Announcement of “supply chain glitches” lead to stock market value loss as large at 10%.



Supply Chain Risk Initiatives at ISU

- Student-based
 - Developing projects where student teams performs projects for companies related to SC risk.
 - Cargill
 - Rockwell Collins
 - Part of the MBA Core class on SCM.
- Research-based
 - Partnering with firms to develop best practices and risk management tools for managing SC risk.
 - New Ph.D. program beginning on Fall 2009.