Logistics and Supply Chain Risk Management
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Roadmap:
Logistics and Supply Chain Risk Management

1. Supply Chain Dynamics
2. Supply Chain Risk
3. Risk Mitigation Strategies
Dynamics
the forces and motions that characterize a system
Back to Basics Holistic SC Objectives
- synchronize efficient & effective flows of four components

1. Goods
2. Services
3. Funds
4. Information

Source: M Power Associates
Supply Chain 101
Optimize three key performance metrics

1
2
3
Global Supply Chains - Evolution
- multi-layered inter-dependencies

Source: M Power Associates
Supply Chain Ecosystems - **DYNAMIC**
- characterized by continuous change, activity or progress
- marked by intensity and vigor; forceful

Source: M Power Associates
Supply Chain Ecosystems - VOLATILE
- tending to vary often or widely

Source: M Power Associates
Logistics: is that part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information - from the point of origin to the point of consumption, in order to meet customers’ requirements

Source: Council of Logistics Management CLM / CSCMP

The Business of Logistics is the Logistics of Business!

Source: M Power Associates
Logistics is the Glue that interconnects the Supply Chain Ecosystem

The Business of Logistics is the Logistics of Business!

Source: M Power Associates
Logistics Enables and Empowers Global Trade Flows
~51% of world sea container flows are Asia-related

Total global container cargo volume 2010: ~152 M TEUs

Source: Drewry Maritime Advisor
Top 10 Air and Sea Freight Trade Pairs in 2030
Bilateral Trade Pairs in USD Billions

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Source: PWC APEC CEO Summit Report 2011
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“It has become apparent that many organizations have not fully recognized the nature of systemic supply chain risk and have continued to focus on seeking efficiency improvements through ‘lean’ solutions”
Supply Chain Ecosystems
Volatile and Complex = Vulnerable

Source: M Power Associates
Supply Chain Ecosystems
Vulnerable - susceptible to attack – “At Risk”
Risk - a factor, thing, element, or course involving uncertain danger; a hazard
Supply Chain Risk – Definition

1. “any factor or event that can materially disrupt a supply chain - whether within a single company or spread across multiple companies”
   Supply Chain Risk Leadership Council (SCRLC)

2. “If you’re counting on it, it’s a risk!”
   Sourcing Innovation Blog
Supply Chain Risks – internal and external

Within your Supply Chain Ecosystem - Internal
- Contractual
- Counterfeiting
- Financial
- Theft
- Suppliers
- Customers
- Employees

Beyond your Supply Chain Ecosystem - External
- Disputes
- Weather
- Currency
- Oil
- Political Unrest
- Accidents
Global Supply Chains = Global Risks

This map shows events that have caused or could cause disruption in global supply chains. The chief components of loss are business interruption and extra expense resulting from relocated production or alternative sourcing.

Source: AON
Supply Chain Risk Management = #2 Priority
Survey of 400 Senior Supply Chain Executives

Supply chain leaders wrestle with five major challenges

- Cost Containment: 55%
- Supply Chain Visibility: 70%
- Risk Management: 60%
- Increasing Customer Demands: 56%
- Globalization: 43%

Source: IBM's "The Smarter Supply Chain of the Future Report"
Business Continuity Survey
Causes of Supply Chain Disruptions

- Weather: 51%
- Transportation Network Problems: 21%
- Telecommunications Problems: 41%

biggest risk = UNKNOWN

Source: Business Continuity Institute
Business Continuity Survey
Impact of Supply Chain Disruptions

- Lost Productivity: 49%
- Increased costs: 38%
- Reduced revenues: 32%
- Cost from single disruption >$1m: 14%

Source: Business Continuity Institute
Risks for Transportation Providers
Very Damaging Supply Chain Challenges

Transportation Providers

- Volatile Market Conditions
- Unpredictability of Demand
- Energy Price Volatility
- Input Cost Increases
- International Regulations

Source: Eye for Transport NA Supply Chain Resilience
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Prevention vs Preparedness

**Prevention**

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Source: CTL at MIT
>90% Supply Chain and Transport Risk Management has become Greater Priority over past five years

Natural disasters
Conflict & political unrest

Sudden demand shocks
Export / import restrictions
Terrorism

VULNERABILITIES

Reliance on oil

Availability of shared information

Fragmentation of value chains

Extensive sub contracting

Lack of supplier visibility

RISK MANAGEMENT PRIORITIES

Collaborative and trusted networks
Effective risk legislation
Information sharing
Quantification metrics
Scenario planning

Transportation Providers
Initiatives to Improve Supply Chain Resilience

Transportation Providers

- Collaborating with Customers
- Streamlining Processes
- New Tracking/Visibility Technology
- Conducting Risk/Security Assessments
- Formal "mapping" of SC Resilience

Source: Eye for Transport NA Supply Chain Resilience 2010
Transportation Providers
Resilience Initiatives producing greatest ROI

Transportation Providers

- More Advanced IT equipment
- Increasing Efficiency of Logistics/Suppliers
- Improving Visibility across SC
- Collaborating with Suppliers
- Negotiating Lower Prices with Suppliers

Source: Eye for Transport NA Supply Chain Resilience 2010
Risk Mitigation
7 point checklist for Logistics Providers

Source: M Power Associates
1. Supply Chain Mapping

Source: M Power Associates
2. Vulnerability Assessment
3. What If...?
4. Contingency Plans

PLAN A

PLAN B

PLAN C
5. Sense and Respond Mechanism

Source: M Power Associates
6. Build Resilience
- Four Pillar Framework

Visibility

Collaboration

Flexibility

Speed

Source: M Power Associates
7. Clear Leadership

Source: M Power Associates
Transport & Logistics Providers
Seven Point Checklist for Risk Mitigation

1. Supply Chain Mapping
2. Vulnerability Assessment
3. What If Scenario Modeling
4. Contingency Plans
5. Sense and Respond
6. Build Resilience
7. Clear Leadership

Source: M Power Associates
Supply Chain Disasters
- not about Predicting, its about Being Ready!

High-Impact, Low-Probability

Massive & Immediate Disruption

Be Prepared!

Expect the Unexpected!

Source: M Power Associates
An exclusive Supply Chain Consulting network of best-in-class business partners that together leverage over 100 years experience in Asia to provide specialist expertise in:

- supply chain operations
- 3PL logistics outsourcing
- market intelligence
- sustainable supply chains
- search and recruitment
- infrastructure master planning