



The
Logistics
Institute
– Asia
Pacific

Supply Chain Risk Identification In An Uncertain Future – Concepts, Methods & Tools



A Collaboration Between



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Executive Summary

This white paper focuses on the key area of risk identification in supply chain risk management. Not just a particular risk, but also a whole portfolio of risks, that cloud supply chains in uncertainty. Risks, that executives must accept as inevitable. Robust response, in itself, is essentially a nodal and not a long-term network strategy. Resilience is more so - the target. Organizations must, hence, anticipate exposure, accept change and adapt flexibly.

One robust organization does not a resilient supply network make. These two key ideas of robustness and resilience are often mistakenly used interchangeably. Organizations must build robustness and plan for resiliency - response to risk is profiled in patterns of decay and recovery in Chapter 2.

The paper runs the gamut of risks from the highly probable to the improbable (but likely) and attempts to identify, qualify and quantify these risks in a supply network that has varied constituent's goals upstream and down. QSAM, discussed in Chapter 3, helps qualify such risks methodically. Quantifying such risks and assignment of key indices, see Chapter 4, and pooling indices helps determine vulnerabilities arising from whole of network connectedness. Simulating ahead, as in Chapter 5, lends tools to then explore mitigating approaches. There are of course leaders and followers in the network and noise in the networks may compound responses. This scenario is discussed in Chapter 6.

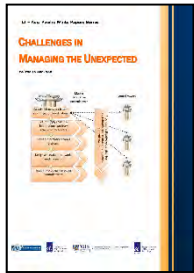
Mitigated decision-making approaches in complex networks are made even more challenging when one has to accommodate geospatial and other extrinsic factors like infrastructure. In Chapter 7, we demonstrate through industry cooperative tools how we can visualize risks concurrently with time-cost initiatives at micro, meso and macro levels; and in Chapter 8, through a cockpit, that integrates multiple modeling paradigms in a multi-layer approach.

In summary, the focus of the white paper is based on the premise that risk identification is the foundation of supply chain risk management. Simple to state, but indeed challenging in implementation. Thus, we believe that harvesting the learning from leading researchers in concepts, methods and tools, as in this white

paper makes a significant contribution to the literature (see Bibliography), but is still work in progress.

Your active participation in the associated THINK Executive dialogue will enable this research to take another leap forward.

TLI-Asia Pacific White Paper Series on Supply Chain Risk Management includes:



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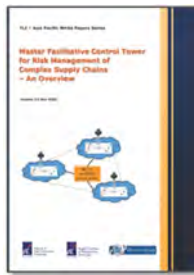
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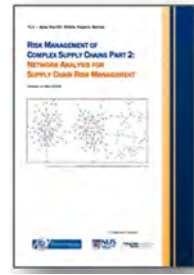
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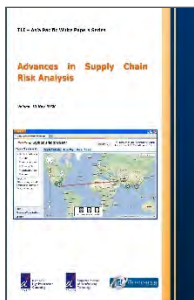
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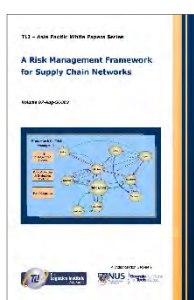
Master Facilitative Control Tower and Visualization Framework
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Risk Management of Complex Supply Chains Part 3: Technologies for Supply Chain Risk Management
(Vol 12-Nov-SCI11)



Advances in Supply Chain Risk Analysis
(Vol 13-Nov-RISK)



A Risk Management Framework for Supply Chain Networks
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