

# Managing Through the Crisis

**Dr. Dale S. Rogers**

**Arizona State University | W. P. Carey School of Business**

Professor, Logistics & Supply Chain Management

Interim Chair, Supply Chain Management Department

Co-Director, Internet edge Supply Chain Lab

Director, Network for Value Chain Excellence

**ILOS - Instituto de Logística e Supply Chain**

Leader in Supply Chain Finance Sustainability and Reverse Logistics Practices

Rio de Janeiro, Brazil.

# Volatility

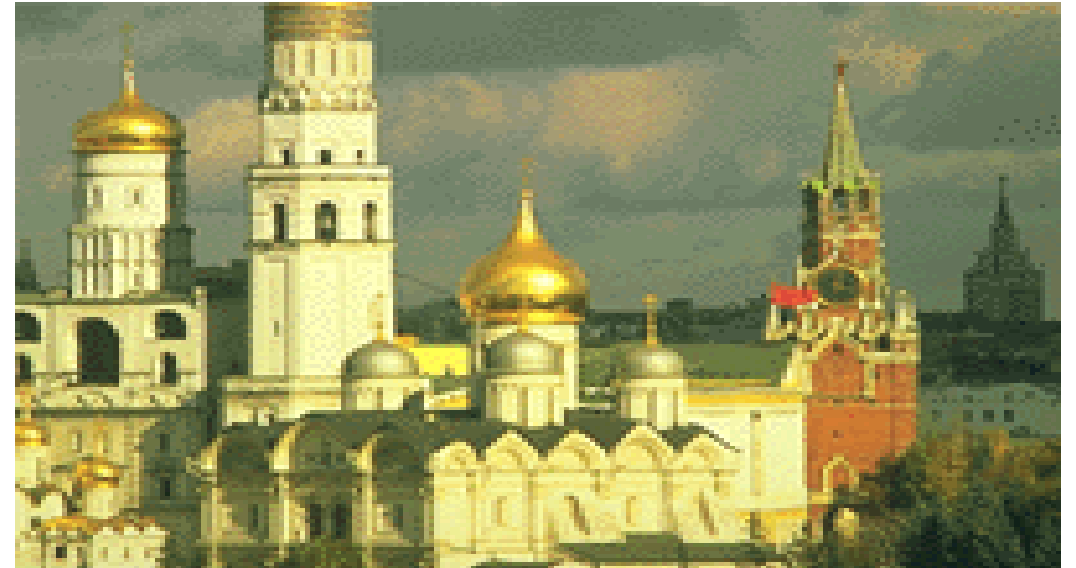
## Brazilian Real to U.S. Dollar



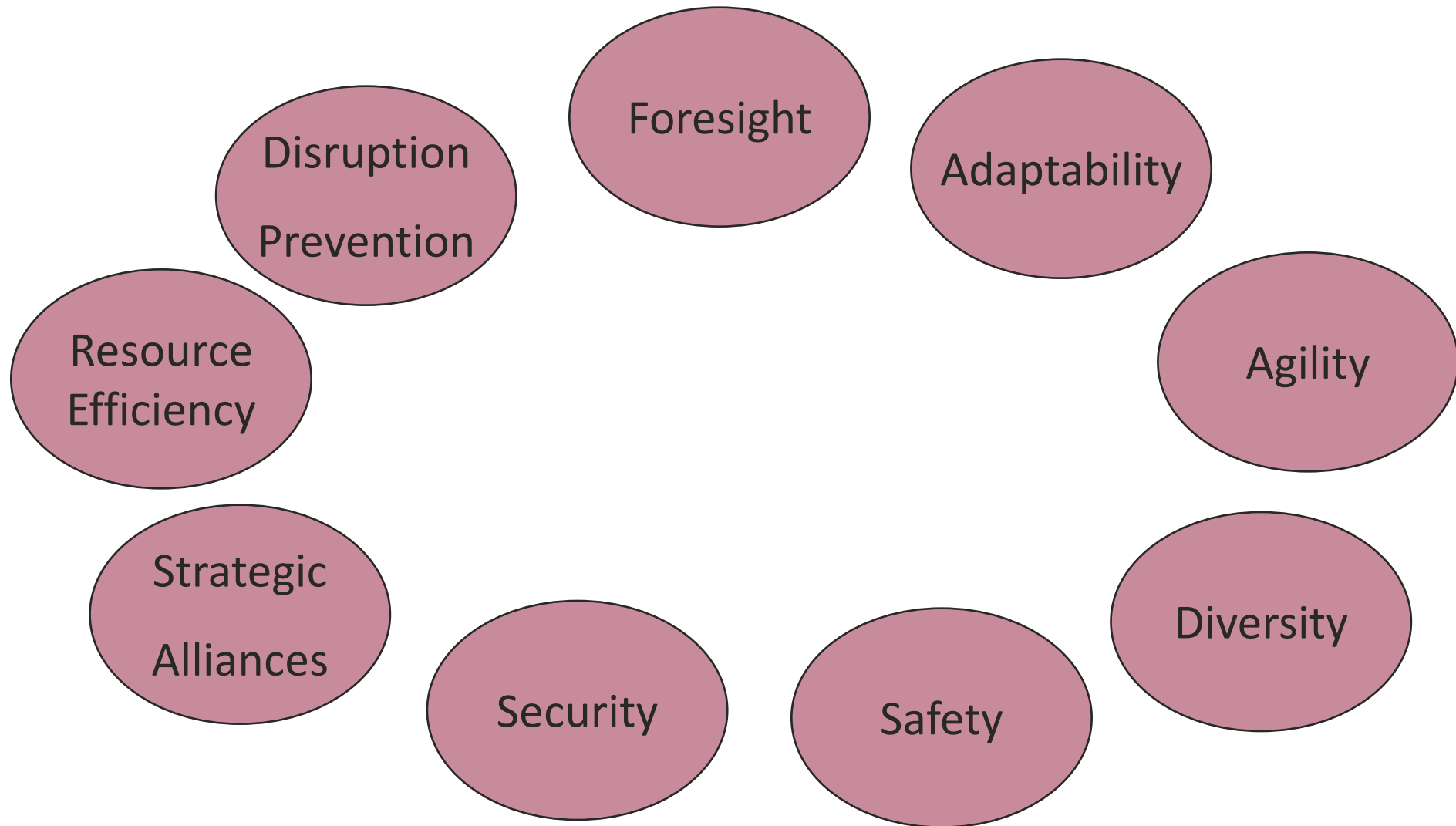
# Structure Drives Behavior

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- Structure determines behavior
- Behavior does not determine structure



# Drivers of Business Resilience

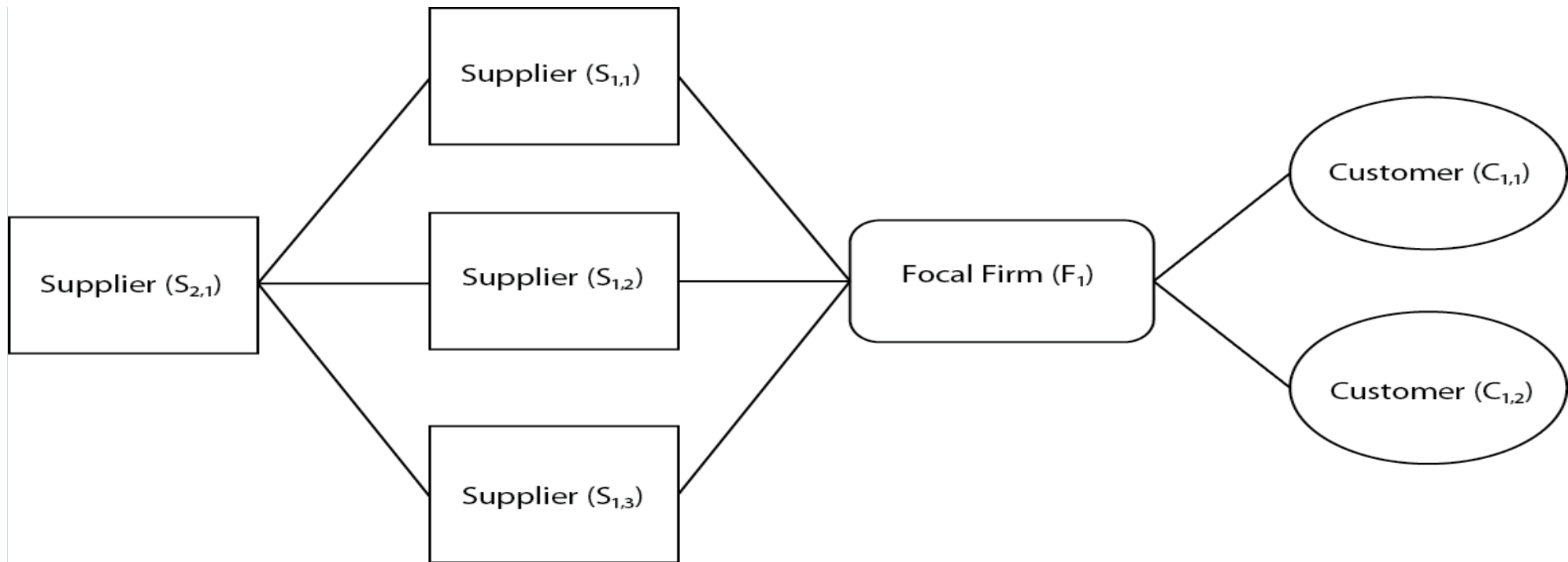


Source: Yossi Sheffi, (2005) The Resilient Enterprise



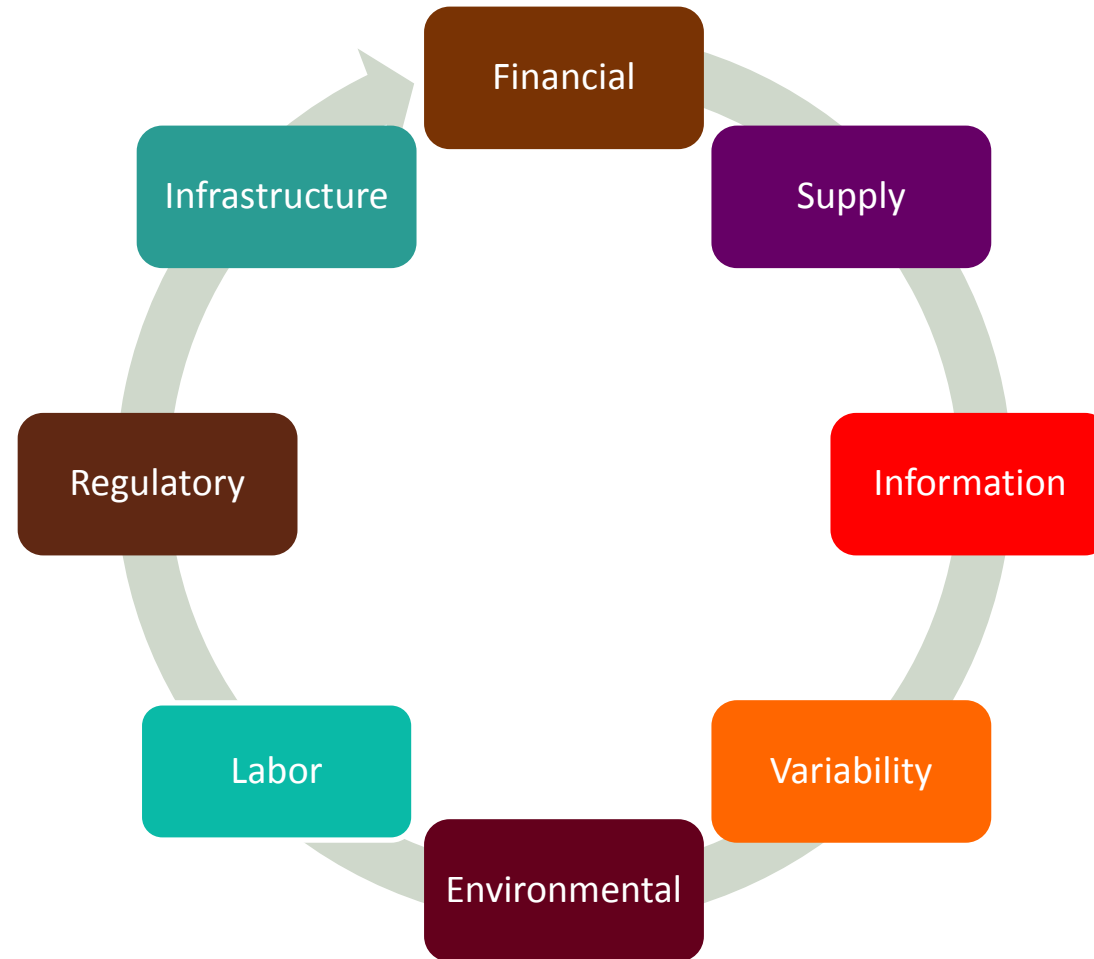
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# Diamond-Shaped Supply Chain Nexus Suppliers



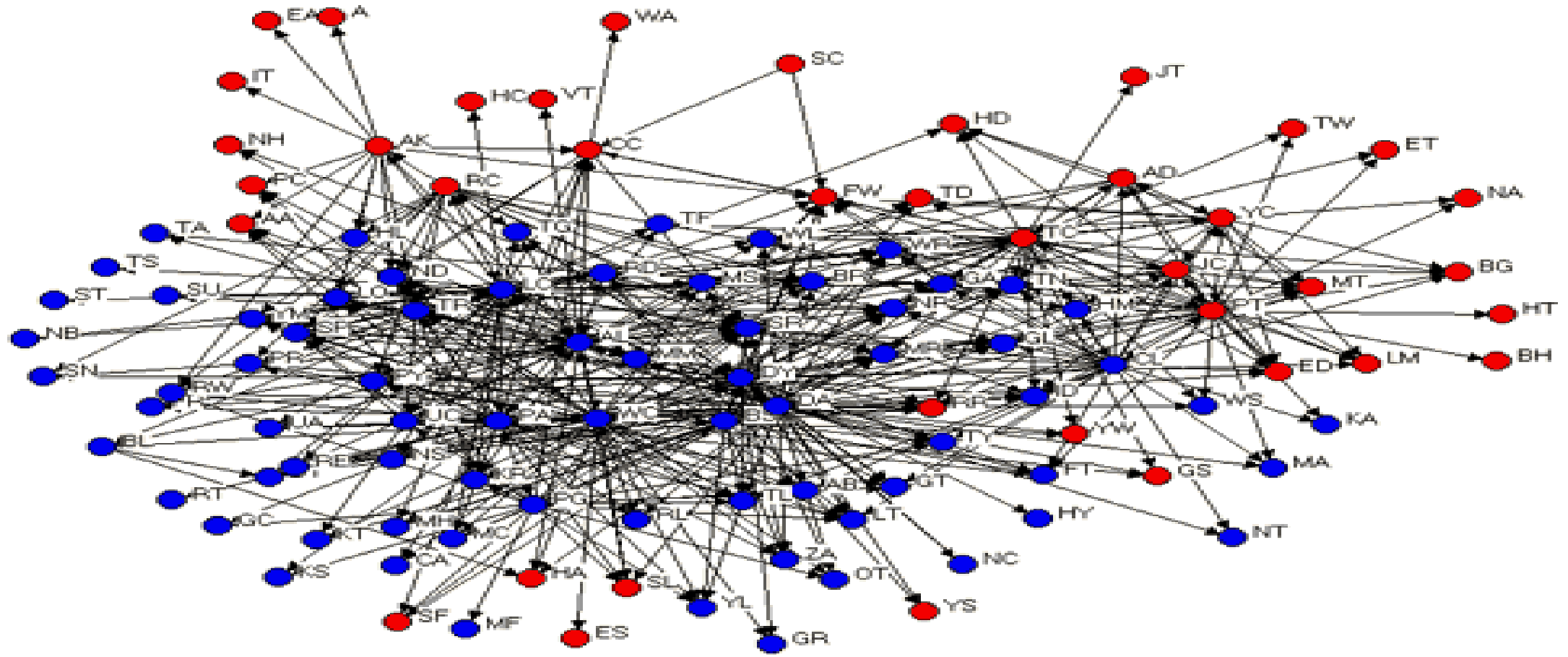
# Types of Risk

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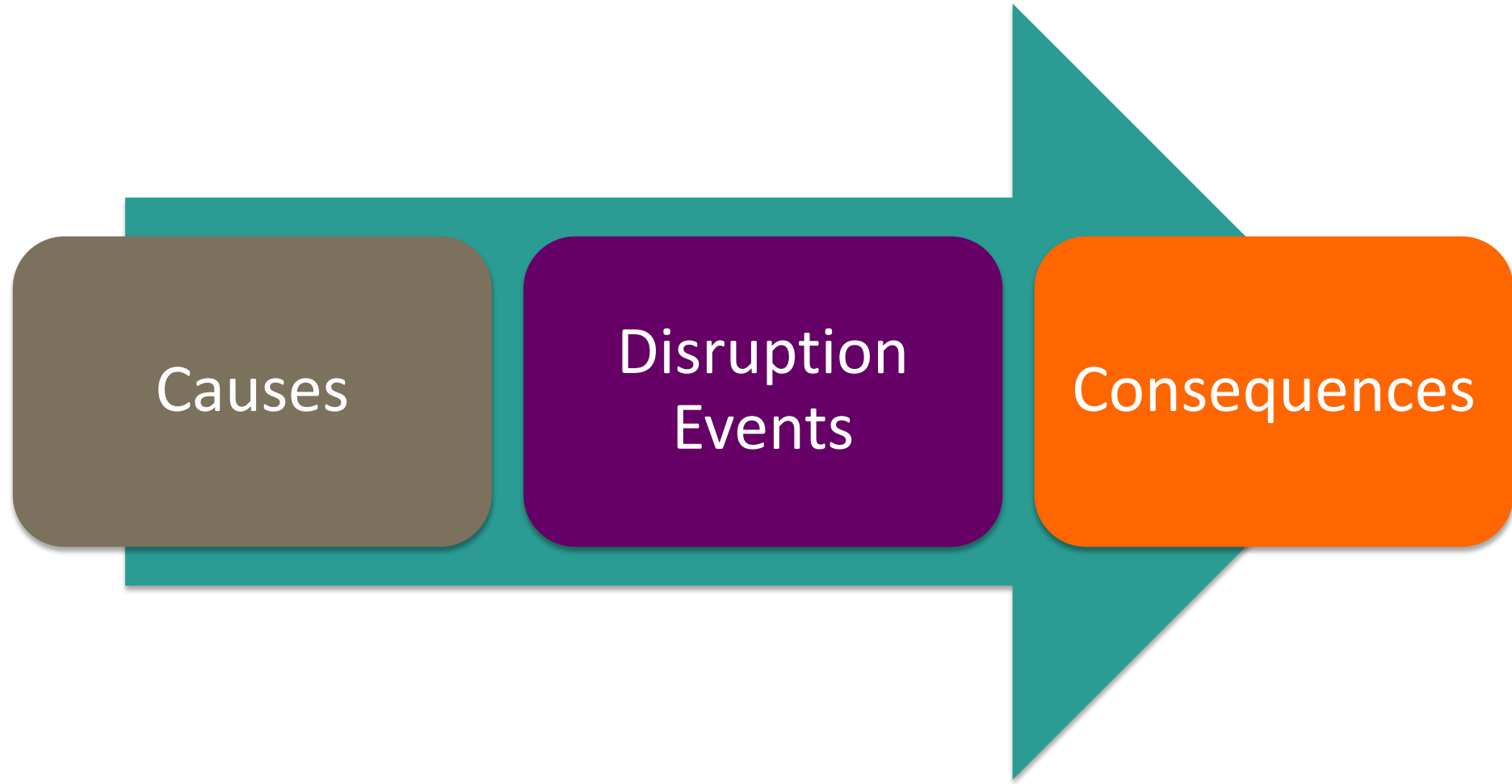


# Complex Supply Networks

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# Structuring Supply Chain Risk



# Risk Management – Early Warning

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- LexusNexis
- Resilinc
- Google Alerts



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# Resilinc Your Supplier Network

Resilinc, the LinkedIn® for your supply chain community, is a leading cloud provider of supply chain risk and resilience intelligence and analytics.

Industry leaders rely on Resilinc to mitigate risks and address compliance challenges, while achieving long-term competitive advantage and building brand & shareholder value.



# Google Alerts

GA Google Alert - factory fire

Google Alerts <googlealerts-noreply@google.com>  
Saturday, November 5, 2016 at 12:35 PM  
To: logprof7@gmail.com

GA

Google Alerts

factory fire  
Daily update · November 5, 2016

NEWS

[Emergency services battle fires across NSW](#)  
The Sydney Morning Herald  
Factory fire at 26 Mavis st, Revesby. Photo: TNV News. "It will still be warm and dry on Sunday, heating up on Monday and on Tuesday - we could see ..."  
Firefighters battle serious NSW blazes - NEWS.com.au  
Tony Abbott hits deck in line of fire - dailyleader.com.au  
Two injured in major Sydney fire - The Mercury  
Full Coverage

[Sydney factory fire injures two](#)  
Sky News Australia  
Several homes have been evacuated after the fire broke out on Mavis Street in Revesby about 11am on Saturday, a police spokeswoman says.

[Fire breaks out at cotton factory](#)  
Republica  
KALAIYA, Nov 5: A fire broke out at a cotton factory in Kalaiya - 6 from ... The fire gutted properties worth Rs 2.5 million, said Deputy Superintendent of ...

[Fire at cotton factory guts property worth Rs 2.5 mln in Bara](#)  
Himalayan Times  
KALAIYA: Property worth around Rs 2.5 million was reduced to ashes when a fire broke out at a cotton factory in Kalaiya-6 of Bara district on Saturday ...

[Fire breaks out in Karachi's garment factory](#)  
Pakistan Today  
Fire officials said that the inferno broke out in the basement and engulfed other parts of the factory. Firefighters limited the blaze to only one part of the ...

[Jessop fire: Ruita ignores CID summons for fourth time](#)  
The Indian Express  
PAWAN KUMAR Ruita failed to appear before the CID in connection with recurring fires at his company's Jessop factory in Dum Dum for the fourth time ...

## Google Alert - Pharmaceutical Africa

GA

Google Alerts <googlealerts-noreply@google.com>  
Saturday, November 5, 2016 at 12:57 PM  
To: logprof7@gmail.com

GA

Google Alerts

Pharmaceutical Africa  
Daily update · November 5, 2016

NEWS

[Pharmaceutical Packaging Equipment Market Detailed Analysis and Forecast by 2021](#)  
Digital Journal  
The global market for **pharmaceutical** packaging equipment has been ... Pacific, and Rest of the World (Latin America, the Middle East and Africa).

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# Business Continuity



E&J Gallo Winery

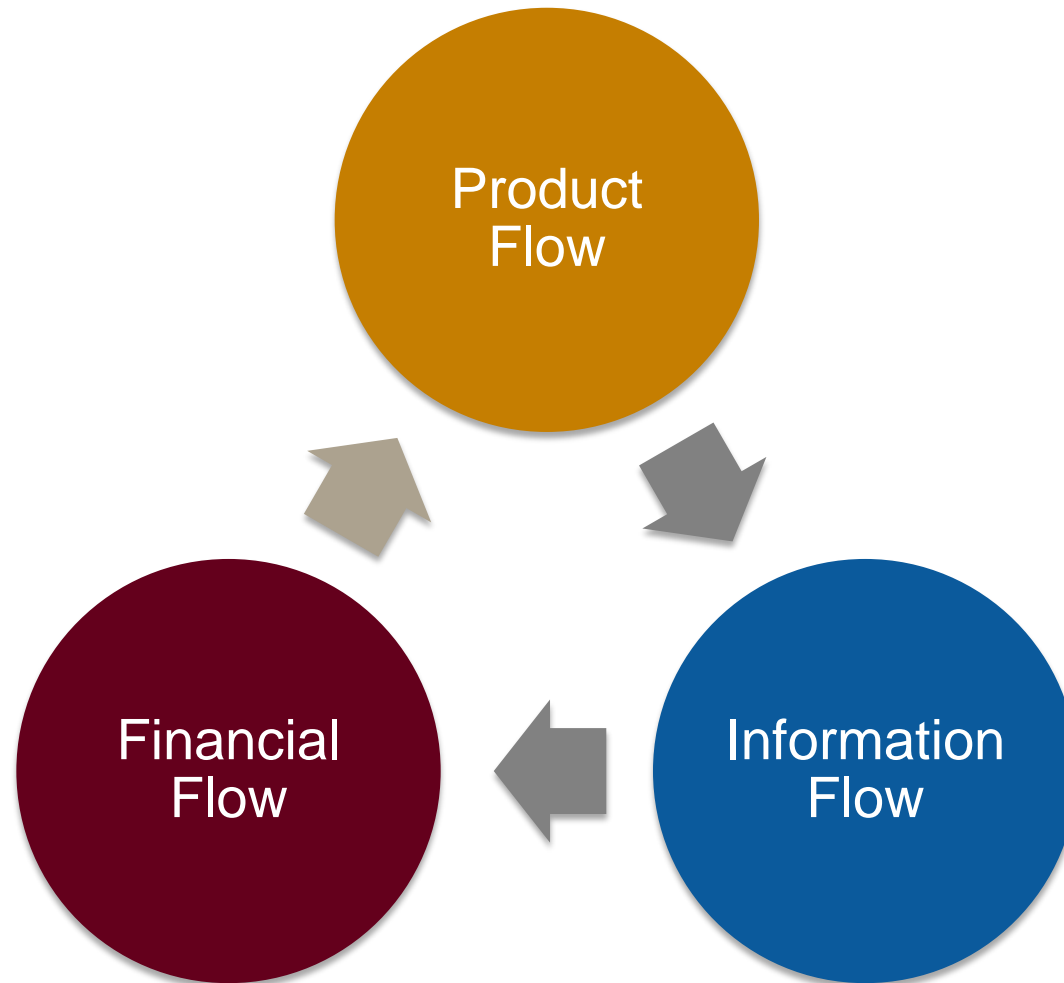


FIAT CHRYSLER AUTOMOBILES



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# Supply Chain Flows



# Global Recall: Mattel Toys – Prague, Czech Republic

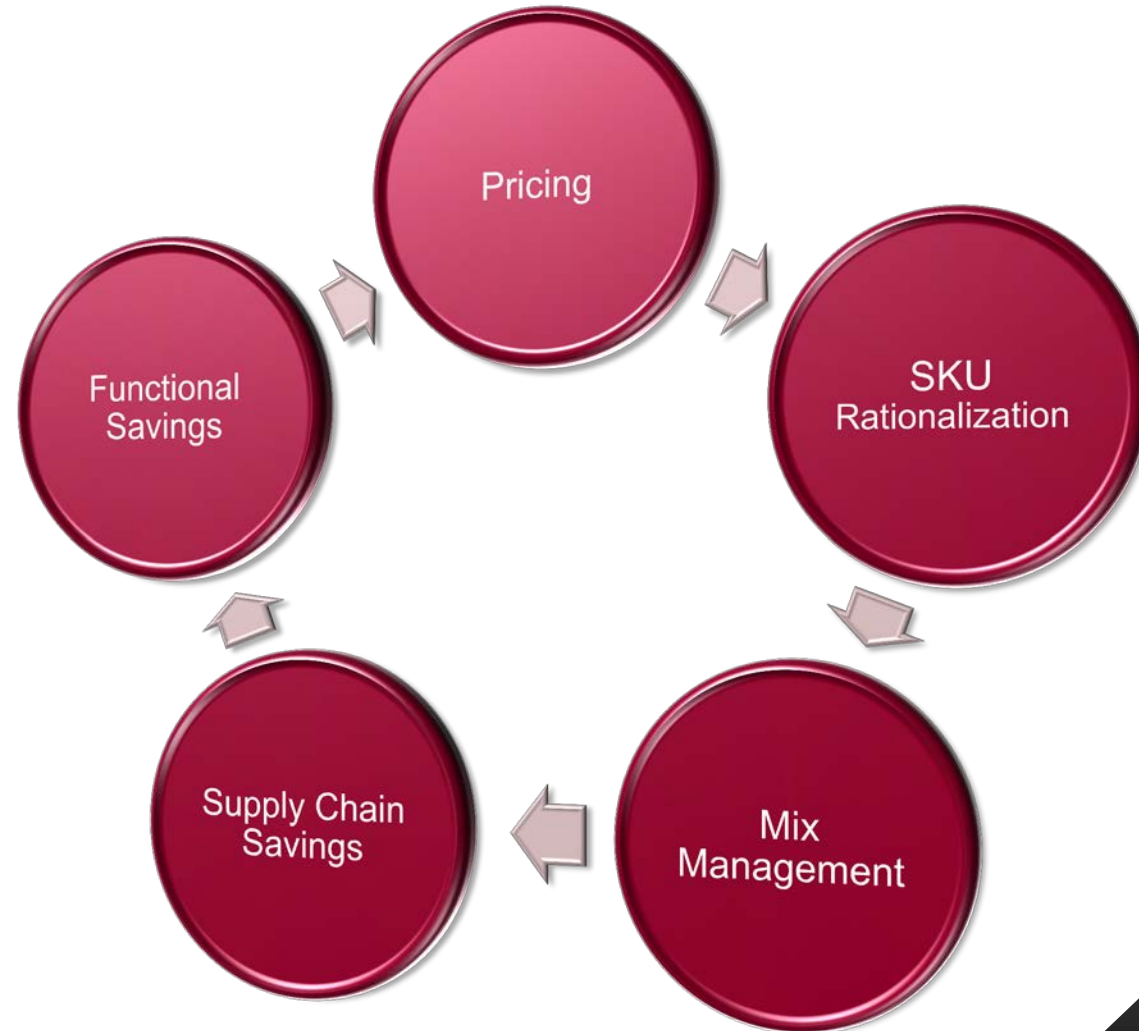


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# Supply Chain Financing

Fund the Growth

# Sources of Supply Chain Capital



# Crisis Births



# Appropriate Models for Risk Management

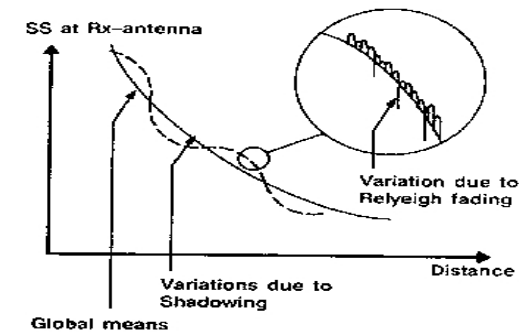
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- Systems approaches/thinking
- Risk management of complex systems is
  - Multi-objective
  - Multi-decision maker
  - Hierarchical (overlapped)
  - Sometimes conflicted/confounded
- Complex systems exceed human capacity to capture everything in a simple model.

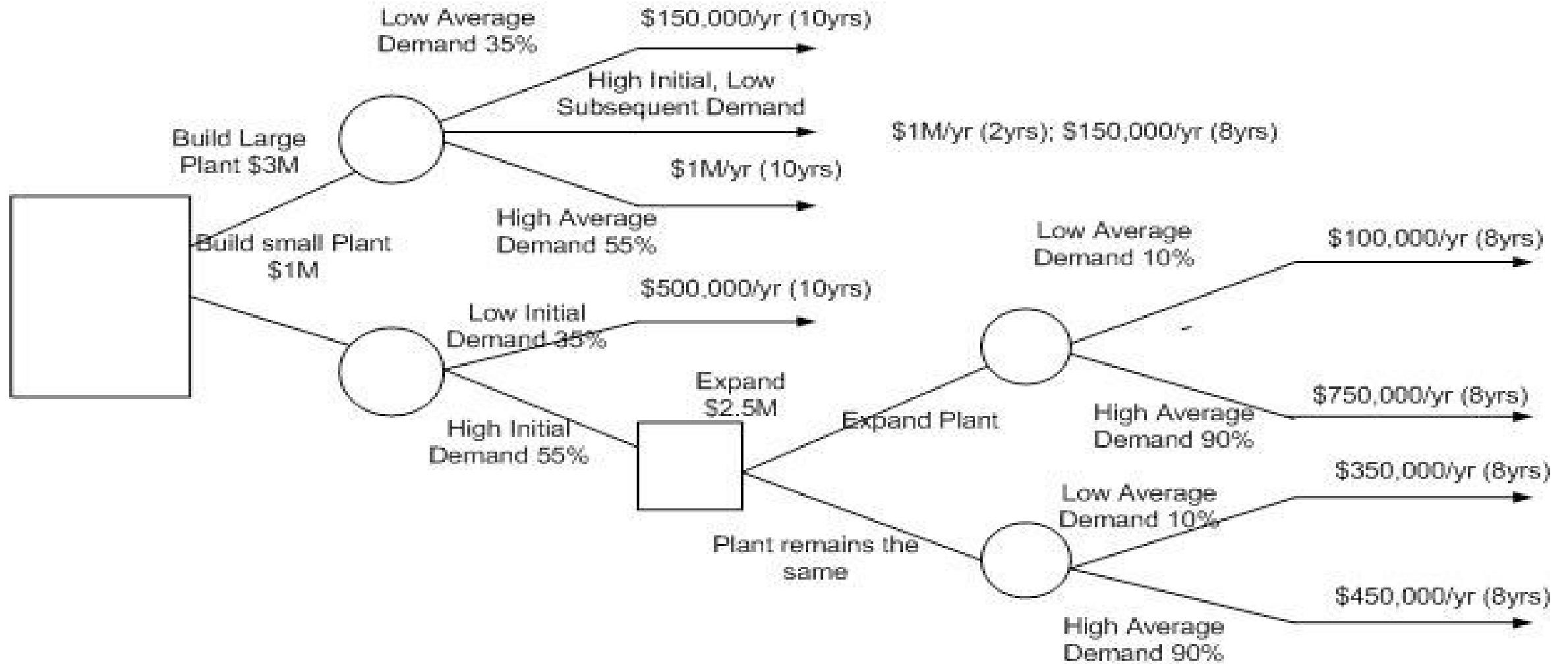
# Attenuation

- Attenuation is a decrease in signal strength during transmission.
- Attenuation is the opposite of *amplification*, and is normal when a signal is sent from one point to another.
- If the signal attenuates too much, it becomes unintelligible, which is why most [networks](#) require [repeaters](#) at regular intervals.

Signal Strength versus Distance



# Decision Tree Analysis



# Restructure?

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***“I know we are having a pretty good quarter. I just hate to waste a good recession.”***

Response from CEO of large 3PL when asked why he was cutting 5% from every division in his firm.

March 25, 2009.

# Managing Through the Crisis

- Leadership
- Direction
- Inspiring others
- Defining expectations and rewards



Source: McKinsey Research



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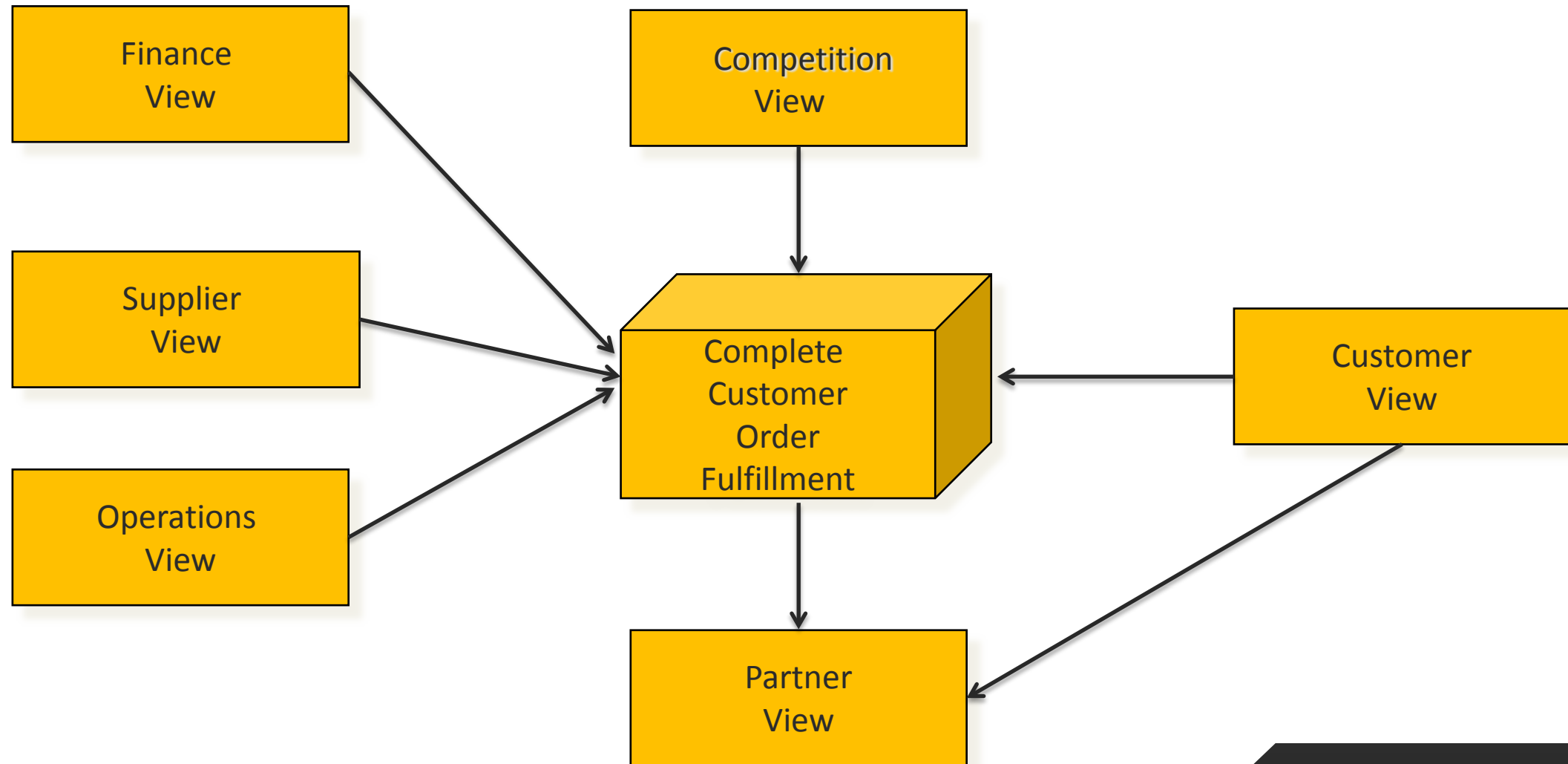
# End of presentation

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**Extra slides follow**

# Vantage Points

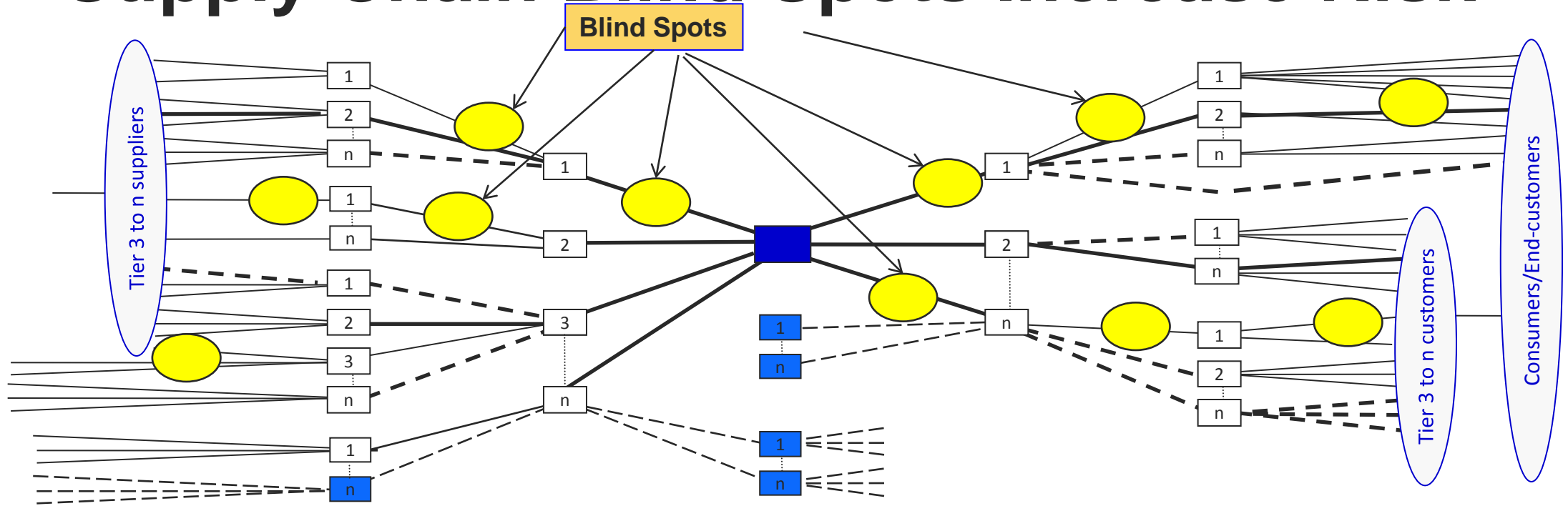


# Pinpointing Vulnerability



# Nexus Suppliers

# Supply Chain Blind Spots Increase Risk



Increase in risk is multiplicative. Improving visibility is required.

# Nexus Suppliers

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- Critical nodes hidden within supply networks.
- Suppliers, or supplier sites, that might be in the second-tier or lower
- Buying companies would ordinarily have no contact and might not even know exist.
- Disruption of its operation would have a surprisingly huge impact on the original-equipment manufacturer's production.
- Supplier may possess critical market information
- Complex supply chains pose unprecedented risks and opportunities
- Big buying companies cannot afford to be in the dark about suppliers far down their supply chains

# Nexus Supplier

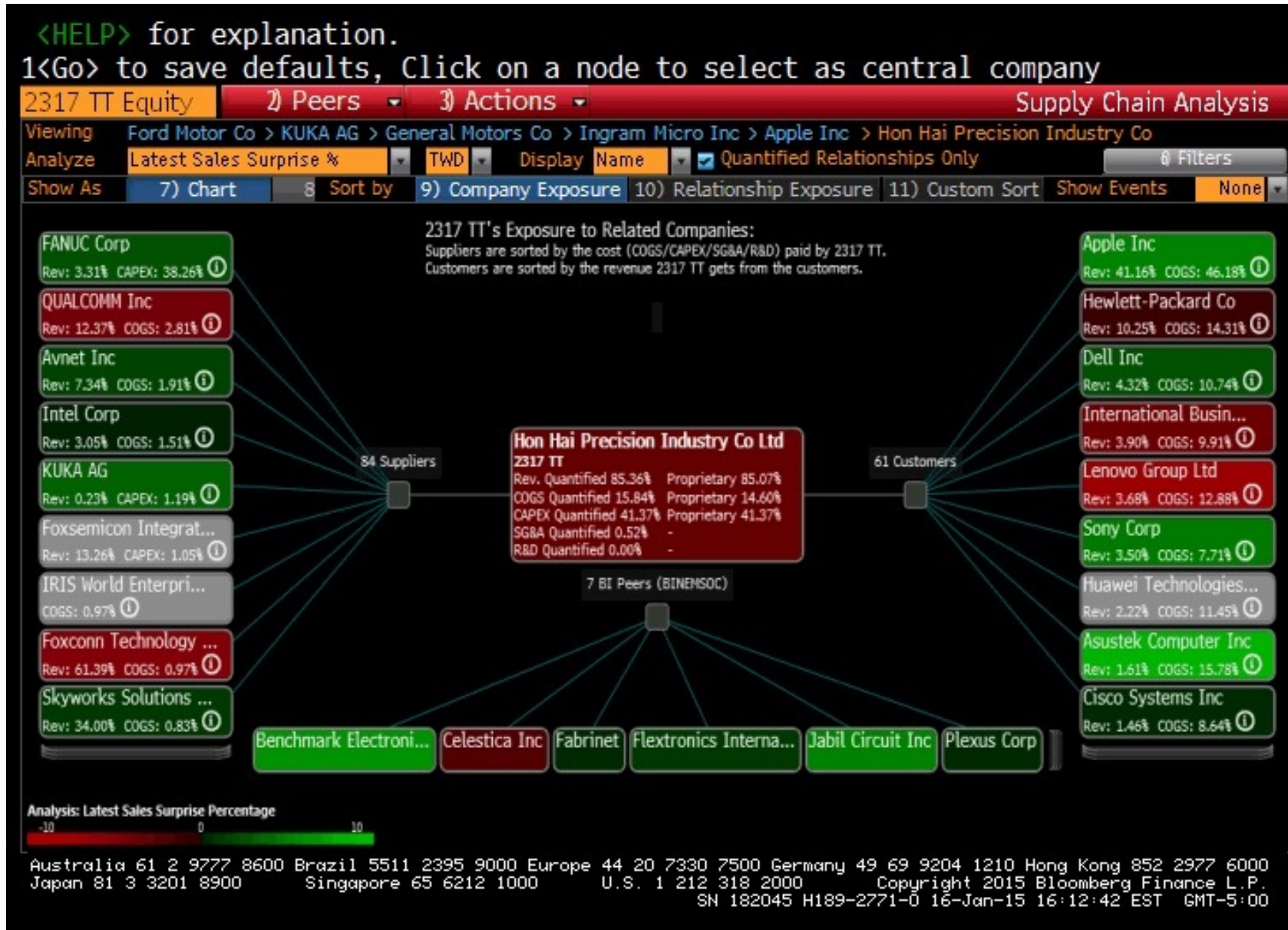


TABLE 1

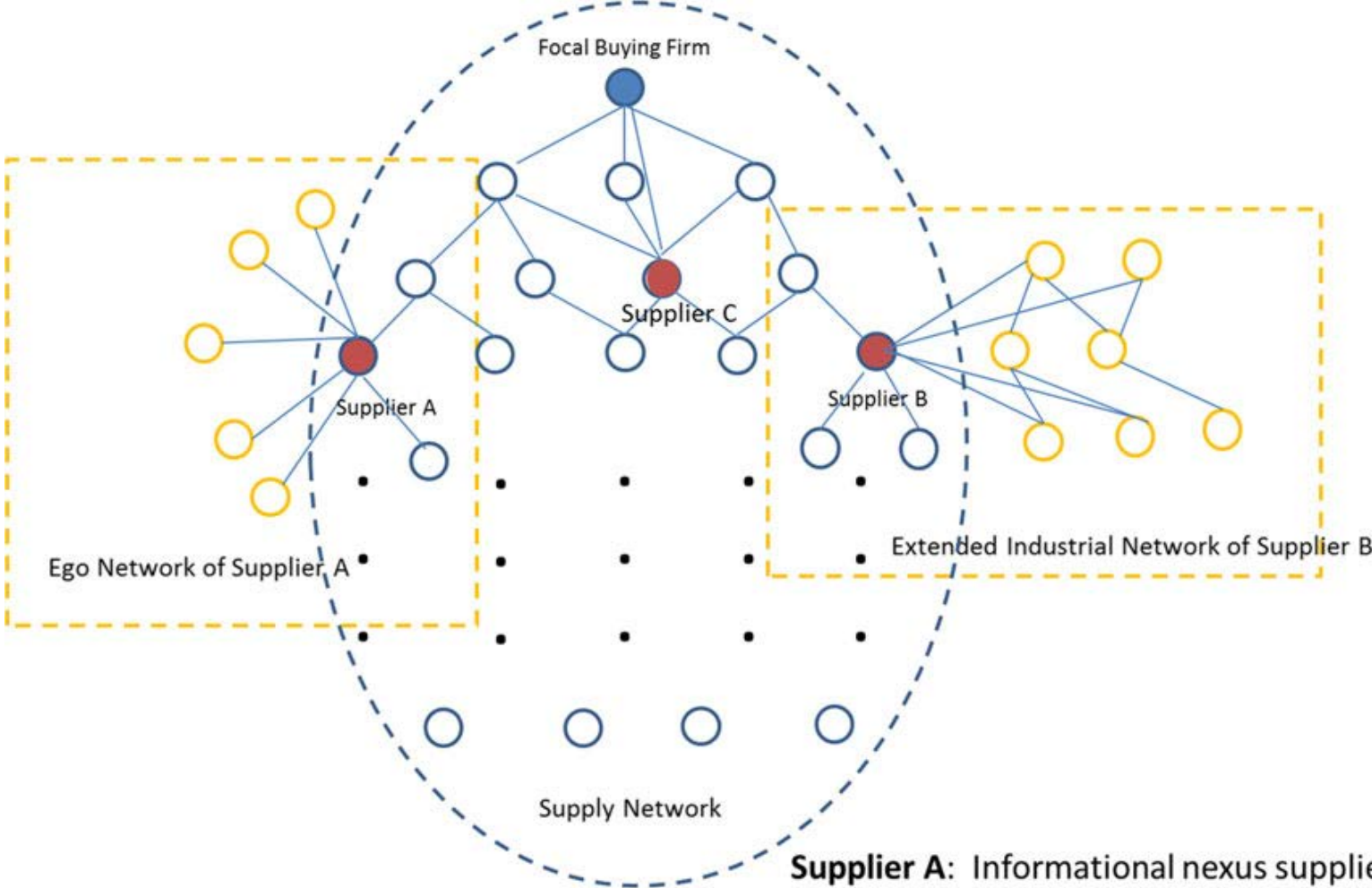
Comparing a Strategic and Nexus Supplier

	Strategic Supplier	Nexus Supplier
Tier in the supply network	Top-tier	Any tier
Visibility to the focal buying firm	Visible	Not necessarily visible
Profit impact	High and direct	Potentially high and indirect
Mutual dependence	High and direct	Potentially high and indirect
Ideal relationship with the focal buying firm	Close	Not necessarily close
Sources of value	Superior internal capabilities and resources	Unique positions in interorganizational networks

### Characteristics of the Three Types of Nexus Supplier

	Operational Nexus Supplier	Monopolistic Nexus Supplier	Informational Nexus Supplier
Network type	Supply network	Extended industrial network	Ego network
Structural characteristics	High degree, betweenness, and eigen-vector centrality	High betweenness centrality	High diversity
Industry Examples	Honda's fastener supplier	Evonic	TSMC, Toyota's filming supplier
Criticality	Significant impacts on the operational performance of the end product	Significant impacts on supply continuity due to low substitutability	Sources of early market and technological information
Roles	System integration Cost and quality control	Supply assurance	Market information acquisition and distribution
Total interdependence	Risk management		Technological innovation
Interdependence asymmetry	High	Medium	Low
Performance implications	Low	High	Low
	Cost, risk, and responsiveness	Responsiveness and risk	Risk and innovation

# Nexus Suppliers



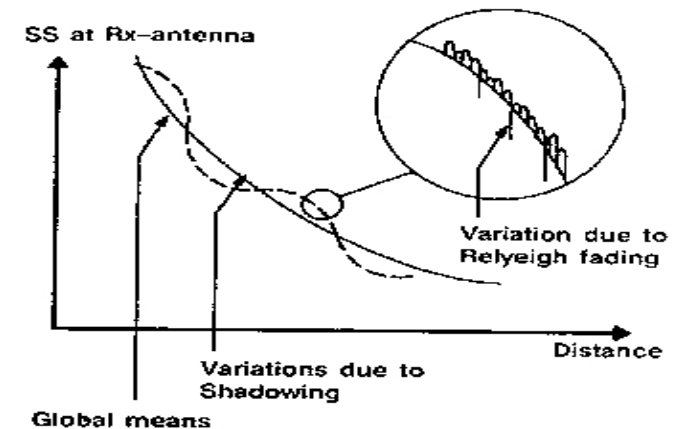
**Supplier A:** Informational nexus supplier  
**Supplier B:** Monopolistic nexus supplier  
**Supplier C:** Operational nexus supplier



# Attenuation

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Signal Strength versus Distance



# Risk is a *Concept*

- Risk is intuitive and familiar to everyone, yet it can be sophisticated and elusive when organizations seek definitions of risk for specific risk management programs.
- As a broad concept, risk inherently has many possible meanings depending on the individual or organization.

# Risk Management

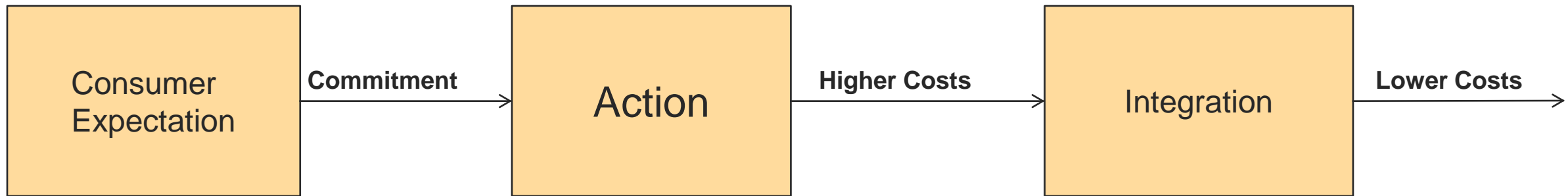
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**Risk *assessment*** is not a single process, but a systematic approach to organizing and analyzing knowledge and information that supports a risk decision.

**Risk *management*** is a systematic process for the identification, assessment, control and communication of risks to life, property, or other valued objects.

# Consumer Requirements: From Expectation to Integration

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- Risk reduction
- Offset new product cost
- Demand environmentally responsible options to dispose of obsolete product
- Consumer expectations will eventually **result** in lower costs

# Revenue at Risk (RaR)

New Metric for Supply  
Management

# Example – FCA Engine Part Supplier

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- Privately held engine parts supplier financially distressed and will have to cease manufacturing
- Supplier makes 5 parts for best-selling FCA engine
- FCA has three choices
  - Buy supplier
  - Develop capability to make parts at risk
  - Substitute

# Example – FCA Engine Part Supplier

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- FCA engineers made estimate of bringing parts fabrication in house:
  - \$5 million for tooling
  - 52 week leadtime

# Example – FCA Engine Part Supplier

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- Revenue at Risk (RaR) would be:
  - Net present value of:
    - Wholesale price of vehicles containing impacted engine times
    - Times number of vehicles
    - Times 52 weeks

# Revenue at Risk (RaR)

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- RaR would be a metric used by supply management groups to measure the impact of supplier discontinuity or other supply problems
- RaR would be calculated for each supplier (important ones – probably not really all suppliers)
- Nexus supplier?

# Other Considerations?

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# Constituents



# Managing Through the Crisis

