

Risk Management: A Focus on the Supply Chain

Professor Rich Weissman
Endicott College

Learning Objectives

- Identify the specific risk elements pertinent to your business
- Analyze the critical areas of your supply chain and determine areas of concern
- Develop a risk register methodology to manage risk
- Create a risk mitigation strategy to address pertinent risk areas

A Bit About Me

- Professor. Writer. Speaker. Practitioner.
- BA Economics from Rutgers University
- MS Management from Lesley University
- 25 year high tech supply chain career
- 15 year higher education teaching and administration, and program management

Environmental Issues Lens

- Geopolitical landscape
- Cost pressures / economics
- Customer demands
- Regulatory and legal requirements
- Unreliable energy and commodity prices
- Globalization
- Supply market instability and risk
- Capacity constraints

Business Issue Brainstorm

So...what's on your mind these days?

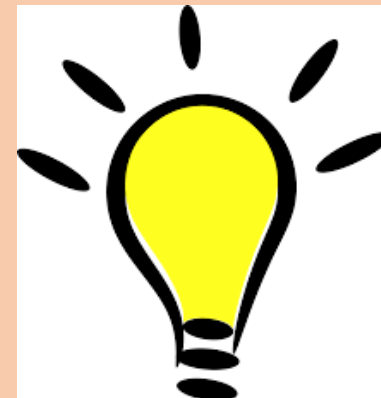
1.)

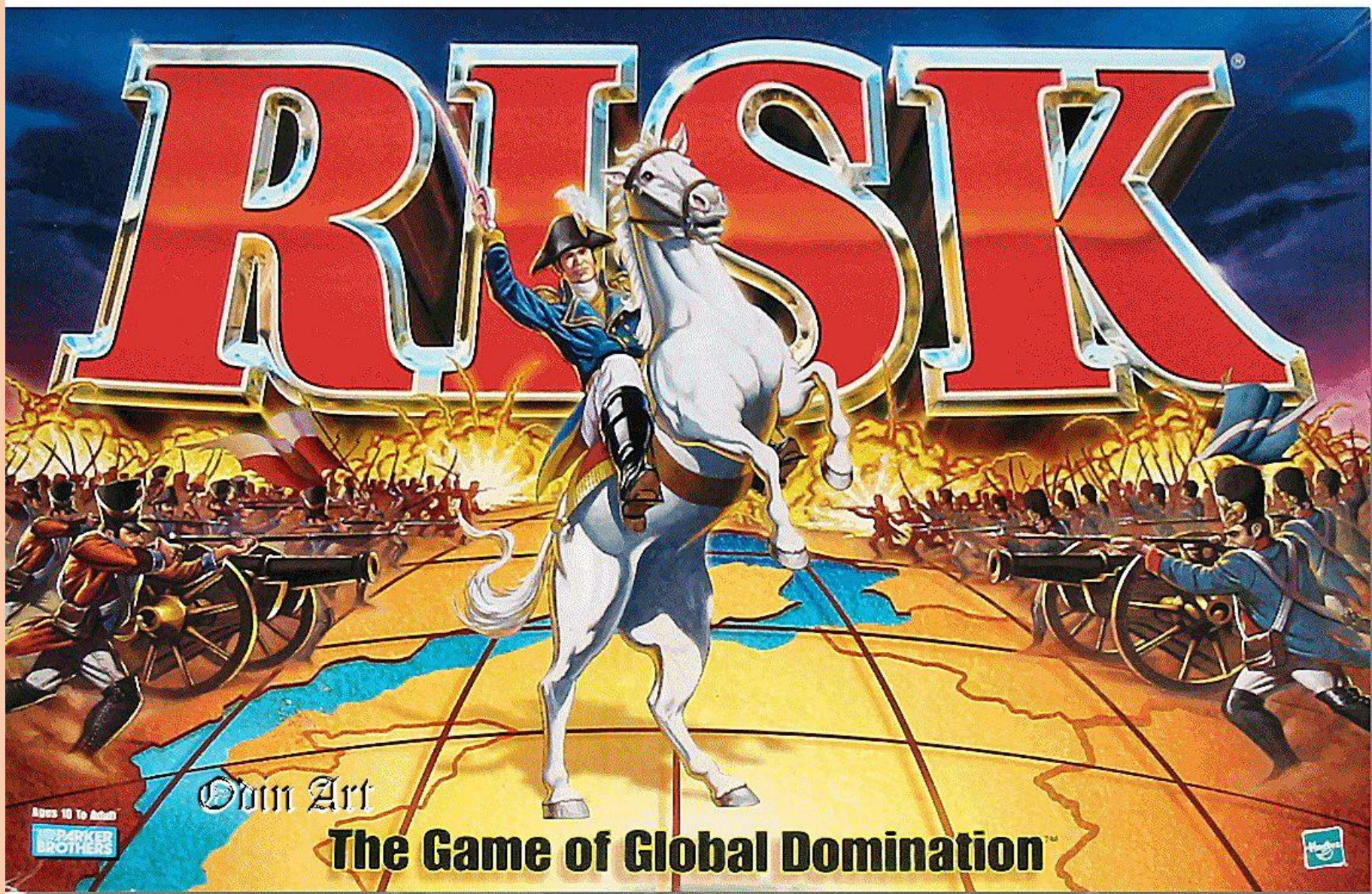
2.)

3.)

4.)

5.)





RISK

Odin Art

The Game of Global Domination™

Age 10 To Adult
PARKER BROTHERS



Risk

- An uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives

Supply Chain Risk Defined

- The provision for continuation of supply in the event of disruption of normal supply channels or to prevent such disruption. It may include disaster contingency plans, multiple production facilities and effective production and quality systems.

360 Degree Approach



Internal and External Forces of Risk

- Management
- Natural
- Environmental
- Political
- Operational
- Geopolitical
- Economic
- Technological
- Financial
- Logistics / Transportation
- Information
- Customer Driven
- Organizational
- Social
- Strategic
- Global
- Regulatory
- Supplier performance
- Supply chain management
- Security
- Others?

Today's Operating Principal

'risk is hidden in unexpected places'

Dr. David Simchi-Levi
MIT

Hidden Risk

- Total spend is low but financial impact of disruption is high
- Total spend does not equate to performance impact
- Low spend suppliers of commodity goods may represent outsized risks

Key Point

- Supply chain efficiency, which is directed at improving a company's financial performance, is different from supply chain reliance, whose goal is risk reduction
- Recurrent risks, such as demand fluctuations, require companies to focus on efficiency in matching supply and demand
- Disruptive risks require companies to build resilience despite additional cost; they tend to have a domino effect in the supply chain

Business Continuity Planning

- The process of creating systems of prevention and recovery to deal with potential threats to a company

Disaster Recovery Plans (DRP)

- A documented process to recover and protect a business infrastructure in the event of a disaster
- Such a plan, ordinarily documented in written form, specifies procedures an organization is to follow in the event of a disaster

Risk Management

- Risk assessment and evaluation
- Risk mitigation
- Ensuring continuity of supply
- Supplier ratings and approved supplier list
- Regulatory compliance

Time to Recover (TTR)

- The time it would take for a particular node, such as a supplier facility, a distribution center, or transportation hub to be restored to full functionality after disruption

Discussion Question

- Why are geopolitical threats minimized by management, despite growing tensions in the world and the increasing fragility of global supply chains?

Risk Register

- A document that the project manager uses for and manage risk
 - ✓ Risk name and unique identifier
 - ✓ Probability of risk occurring
 - ✓ Impact on the project if the risk occurs
 - ✓ Risk score (low, medium, high)
 - ✓ Accountable risk respondent
 - ✓ Comments

Risk Register



Supply chain management



Supply Chain Resilience

- Supply chain resilience is the ability of a supply chain to both resist disruptions and recover operational capability after disruptions; risk reduction
- **Resistance capacity** is the ability of a system to minimize the impact of a disruption by evading it entirely (avoidance) or by minimizing the time between disruption onset and the start of recovery from that disruption (containment)
- **Recovery capacity** is the ability of a system to return to functionality once a disruption has occurred

Supplier Selection Criteria

- Quality process
- Manufacturing ability
- Financial condition
- Product specifications
- Geographic location
- Quality history
- Education and training
- Process controls
- Customer base
- Competitive pricing
- Prior and post sales support
- Research and development
- Preventative maintenance
- Ethics
- Supply management process
- Organizational structure
- Account management
- Health and safety records
- Tool tracking
- Market involvement
- Capability
- Management commitment
- Capacity constraints
- Facilities and equipment
- Labor conditions
- Cost management
- On-time delivery history
- Environmental programs
- Policies and procedures
- Housekeeping
- Percentage of business
- Plant locations
- Culture
- Calibration control
- Corporate social responsibility
- Technology

The Firm's Level of SCM Activities

- **Strategic Level.** Long lasting effect, such as number and capacity of warehouses and manufacturing plants, as well as the flow of material through the logistics network
- **Tactical Level.** Decisions updated quarterly to yearly, including purchasing and production decisions, inventory policies and transportation strategies
- **Operational Level.** Day-to-day decisions such as scheduling, lead time quotations, routing, and truck loading

Key Supply Chain Concepts: Integration

- Supply chain management involves the integration of supply and demand management within and among companies. The supply chain encompasses planning and managing sourcing, procurement, conversion, and logistics management, including working with channel partners.

Key Supply Chain Concepts: Economics

- Effective supply chain management drives economic profit, which in turn drives shareholder value. Improved supply chain controls free cash reserves by leveraging inventory and working capital.

Key Supply Chain Concepts: Strategy

- Companies need a proper balance between operational imperatives (e. g. transportation, order management, facilities, inventory and cash flow) and long term strategic objectives. Many companies cite short term thinking as the greatest barrier to supply chain excellence.

Key Supply Chain Concepts: Talent

- Executives who build and run excellent supply chains share five key skills and talents. People hired or groomed for top-level supply chain positions should exhibit global orientation, systems thinking, inspiring and influential leadership, technical savvy, and superior business skills.

Key Supply Chain Concepts: Technology

- Leaders must select and apply the right technologies---if they are necessary. Improperly implementing technology, or automating a process best improved by reducing steps instead, can negatively affect the supply chain.

Key Supply Chain Concepts: Functional

- Vertical functional barriers impede the path to supply chain excellence. Aligning the internal functional silos requires the concerted effort of an organization's supply chain executives, CEO, and COO.

Key Supply Chain Concepts: People

- People management is the most important part of any project's success. People issues are nearly always more challenging than technological issues.

Summary

- Craft a procurement and supply chain strategy
- Study current events
- Map out the tiers
- Practice four-way communication
- Calibrate your financial lens
- Create a risk register
- Keep learning
- Enculturate worry



Thanks!

Professor Rich Weissman

Endicott College

Van Loan School of Graduate and Professional Studies

Beverly, MA 01915

rweissma@endicott.edu

978-232-2269