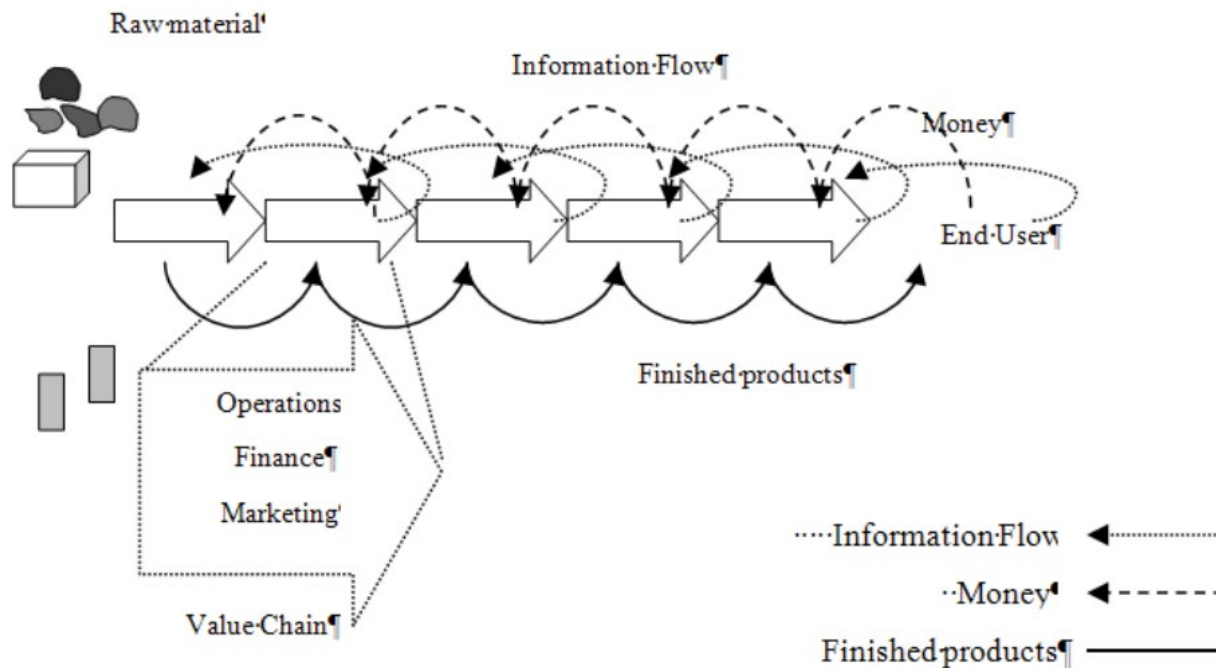




# Supply Chain Risk Governance and Competitive Advantage

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# Diagrammatic representation of a Supply Chain



A Supply Chain is a network of facilities that produce or procure raw materials, transform them into intermediate goods thereafter final products which are delivered to customers through a distribution system.

It spans procurement, manufacturing and distribution

# What is Supply Chain Management?

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SCM is management of material, people, external suppliers, finance and technology within and across the supply chain to maximise customer satisfaction and gain competitive advantage



The basis objective of SCM is to 'optimise performance of the supply chain to add as much value as possible for the least possible cost'



The main goal of SCM is to leverage expertise, experience, skills and capabilities of all participants in the supply chain



SCM aims to link all the agents to jointly co-operate with the company to maximise productivity within the supply chain and deliver benefits to all related parties

# Supply Chain as a source of Competitive Advantage

Effective SCM is the cornerstone of sustainable competitive advantage realised through cost reduction and efficiency without compromising customer satisfaction

- **ASML**

By 2010 ASML a Dutch lithography company had spent nearly 2 decades in trying to make EUV lithography work .....

- The most crucial input into an EUV lithography system was not any individual components but the company's skill in SCM
- ASML engineered this network of business relationships 'like a machine'
- ASML only produced 15% of an EUV's components
- ASML bought several suppliers after concluding they could better manage them to maintain supply and quality

- **Apple**

Apple has been making significant strides in insourcing its chip production and modifying its production facilities footprint to stay competitive..

- Apple announced in 2020 that it would start designing its own ARM based processors known as Apple Silicon
- Apple has partnered with TSMC to produce its chips. Apple is also investing in US-based chip production
- Apple has been significantly expanding its production facilities in India as part of its broader strategy to reduce its reliance on Chinese manufacturing

# Supply Chain barriers

## Inter-firm rivalry

- Internal and external turf wars
- **Poor SCM planning**
- **Lack of SCM vision**
- Lack of trust and/or executive commitment
- Poor SCM understanding

## Managerial complexity

- **Misaligned SCM processes**
- **Differences in supply chain partner cultures**
- IT deficiencies
- Organisational structure and culture
- lack of alliance guidelines

# Supply Chain Risks 1/2

While supply chain risks are manifold and will vary by organisation and activity undertaken, key macro supply chain risks are:

1. Scarcity of material resources

Several key industrial materials are in short or 'constrained' supply. Two examples are lithium and gallium both of which are significantly 'controlled' by China

2. Taking cost efficiency a step too far

Past strategic decisions of companies involved:

- Vertical disintegration – Boeing's spin-off of Spirit AeroSystems
- Horizontal expansion – Raytheon active in defence and commercial segments
- Under-investing – very many companies maintain minimum inventory
- Offshore 'outsourcing' – many US companies source from 'competing' nations such as Russia and China

# Supply Chain Risks 2/2

## 3. Lack of supplies

This has become a major issue not only for industry but also for consumers:

- Airbus faces significant supply chain issues: delays by parts suppliers, transportation delays, labour shortages
- Consumers face delays in finishing their new kitchens, waiting time for premium cars etc

## 4. Geopolitical risks

Global supply chains are being changed due to geopolitical tensions and the shift to secure more localised production is making it harder to secure critical components or supplies

- BASF's dependence on 'cheap' gas from Russia

## 5. Regulatory adherence

Supply chains are subject to regulatory (including ESG) compliance along the entire supply chain exposing organisations to a multitude of non-compliance or brand/image risks

- Textile manufacturers in Bangladesh (labour conditions including child labour)
- Production facilities in developing countries to bypass emission and/or other regulations in developed countries



# What is Risk Governance?

Risk governance can be described as a 'turbo charged' governance approach that enhances organisational Sustainability and Value through active oversight of risks

The implementation of risk governance must be carried out on a situational basis in relation to the risk profile, the business model and the size and complexity of the respective institution

In general, an effective risk governance process would assist in:

- proactively identifying material risks that the organisation faces;
- implementing appropriate risk management processes that are responsive to the organisation's risk profile, strategies and specific material risk exposures;
- integrating consideration of risk into strategy development, decision-making and strategy reviews and
- ensure adequate, timely and comprehensive management reporting to evaluate organisational performance against its objectives



# How does the concept of Risk Governance apply to SCM?

## **1. Clearly differentiating Operational risk v/s Strategic risk management**

Operational risk management focuses on addressing supply chain operations challenges Risk governance focuses on integrating risk considerations into the development of the organisation's supply chain strategy

## **2. Understanding risk Tolerance v/s risk Capacity**

Supply chain risk tolerance is the domain of management whereas in a digitalised networked world with globalised supply chains the Board should play a key role in establishing and monitoring the organisation's risk capacity

## **3. Long-term sustainability v/s Short term focus**

Many supply chain solutions prioritise short-term results (or value of shares). An organisation applying risk governance would focus on organisational long-term sustainability and supply chain resilience

## **4. Managing competition risk**

As firms act to meet competitive challenges, they separately vary their exposure to objectively real risks, and their subjective risk perceptions. Risk governance assists in calibrating the 'fit' between each firm's subjective risk map and its objective 'riscscape'

# Supply chain Risk Governance as a competitive advantage

## 1. Development of capacity for organisational resilience

Organizations can develop and improve supply chain resilience capability by: (1) establishing a risk management culture and improving risk awareness among employees and (2) embedding strategic risk capabilities throughout the organization

## 2. Optimising system reliance

Approaches that include debiasing and stress-testing help senior executives consider previously overlooked sources of uncertainty to judge whether the company's risk-bearing capacity can absorb their potential impact. A utility in Germany, for example, improved decision making by taking action to mitigate behavioural biases. As a result, it separated its renewables business from its conventional power-generation operations

## 3. Enhancing sustainability

A clear definition of risk appetite will translate risk-return trade-offs into explicit thresholds and limits for financial and strategic risks, such as economic capital, cash-flow at risk, or stressed metrics. In the case of nonfinancial risks like operational and compliance risks, the risk appetite will be based on overall loss limits, categorized into inherent and residual risks

## 4. Developing the firms supply chain agility

Comprehensive operative controls can lead to more efficient and effective processes that are less prone to disruption when risks materialize. In the auto sector, for example, companies can ensure stable production and sales by mitigating the risk of supply-chain disruption. In Japan a leading automaker probed potential supply bottlenecks and took appropriate action. After an earthquake in 2016, the company quickly redirected production of affected parts to other locations, avoiding costly disruptions

# Illustrative examples of divergent practices

## Negative outcomes

- **Boeing**
  - Outsourcing of SpiritAerosystems resulting in quality and safety issues
- **German auto manufacturers**
  - Long waiting list for cars due to SCM issues
  - Reactive approach to lithium resources
- **Northrop Grumman**
  - Increased costs and constrained access to gallium

## Positive outcomes

- **Apple**
  - insourcing of chips
  - production in India
- **BYD**
  - quick delivery schedules due to proactive SCM strategy
  - proactive supply solution for lithium

# Risk governance has significant potential .....

## 2023 Germany Spencer Stuart Board Index (some) findings (DAX 40)

- German boards hold the fewest meetings in Europe
- Risk committees are rare – only 7,5% of the companies maintain one. Where they are established they meet, on average, four times a year (unchanged from 2020)
- “many CEO’s do not believe their Boards have the breadth of experience and knowledge to ask the right questions or the competence to provide advice to the CEO to improve decision making’

## 2023 US Spencer Stuart Board Index (some) highlights (S&P 500)

- Boardroom turnover is consistently low. Is this level of change sufficient in a dynamic and fast-changing environment?
- The average tenure of S&P 500 directors is 7,8 years. Is this an effective tenure or should refreshment strategies be reviewed?
- Chair independence: 41% of the CEO’s were also the chair
- 12% of boards have a risk committee