

SUPPLY CHAIN MANAGEMENT

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Lecture 1: Principles of SCM

Supply Chain:

- Is the flow of products and services from raw materials manufacturers → intermediate product manufacturers → end product manufacturers → Wholesalers and distributors → retailers.
- Strategies are used to optimize the supply chain.
- Integrated through information, planning and integration activities such as DIFOT (Delivery In Full and On Time).
 - o This is the reason why Coles looks to Coca-Cola as a supplier because they operate using this and hence are reliable.

Definition of Supply Chain Management:

*Is the set of approaches to efficiently integrate parties in the SC so that products are made and distributed efficiently and effectively, to minimize **system wide** costs while **satisfying service level requirements** to achieve a **sustainable competitive advantage**.*

Two different supply chain types:

DOWNSTREAM FLOW

- Information and goods from suppliers, manufacturers and retailer.
- Encompasses all of the downstream distribution channels, processes and functions that the product passes through on its way to the end customer. E.g. automobile company: finished goods and pipeline inventory.

UPSTREAM FLOW

- Information and money flow from retailer, manufacturer to supplier.
- The management of upstream external SC members is necessary to ensure that the right materials arrive at the right locations, at the right time.

Businesses manage their supply chain because:

- Supply chain strategies cannot be determined in isolation
- System wide costs are minimized and system-wide service levels are maintained.
- Uncertainty and risk are inherent in every supply chain.

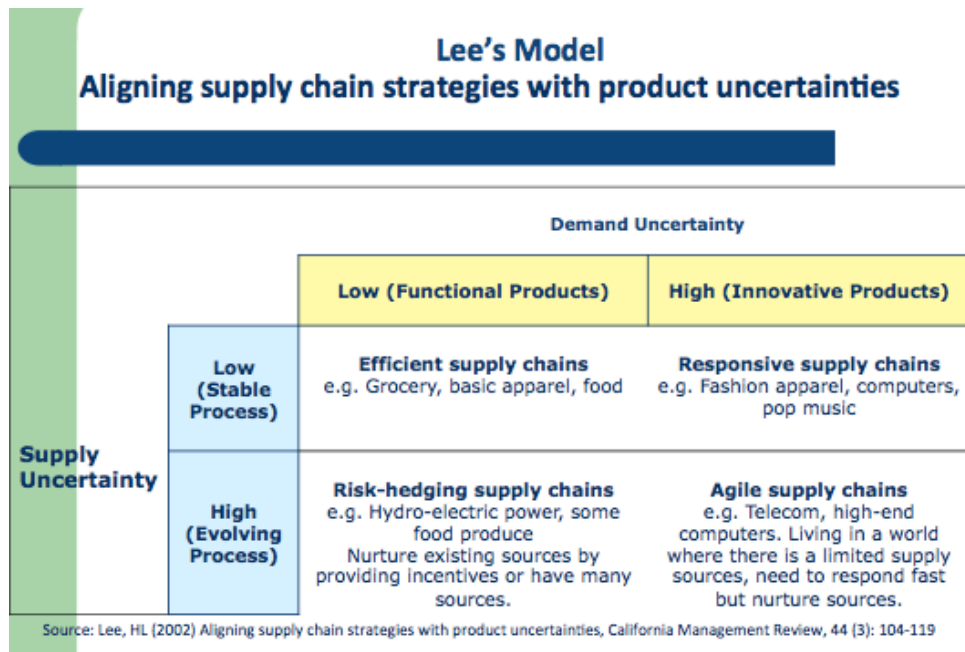
3 critical abilities that successful firms must possess:

1. The ability to match SC strategies with product characteristics.
 - a. Product design strategy depends not only on characteristics of the development chain and the SC characteristics.
2. The ability to replace traditional SC strategies with ones that provide for a globally optimized SC.
3. The ability to effectively manage uncertainty and risk.

Key issues in SCM

- Distribution network configuration: Changing demand patterns may require a change in plant production levels, advanced technology and approaches would need to be used to resolve this issue.

Lee's Model

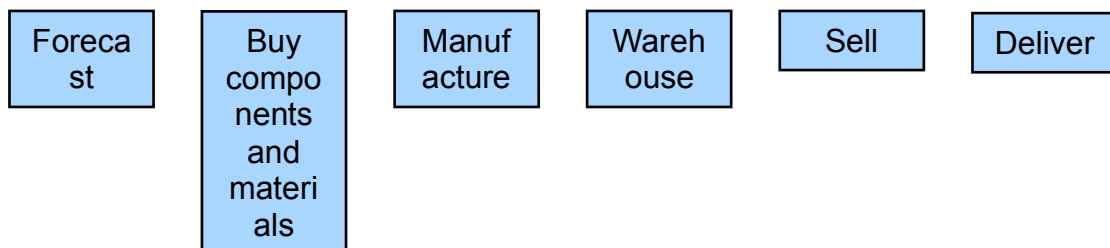


Enablers and Drivers of SCM:

Responsiveness in the SC

Response-based business model:

- Anticipatory models are **pull based** and flow products and services whether immediate demand is present or not.
 - PULL BASED:**
 - Make to order.**
 - Not forecast driven. Customer driven.
 - Based on actual demand.
 - JIT and CRP
 - E.g. elevator is pressed even if only 1 passenger.



Anticipatory-based business model:

- Push model** based on actual customer orders
 - PUSH MODEL**
 - Make to stock.**
 - Forecast driven
 - Don't start production until customers order.
 - Need to wait a long time
 - Not based on actual demand