



IIT ROORKEE



NPTEL ONLINE
CERTIFICATION COURSE

SUPPLY CHAIN ANALYTICS

Supply Chain Planning

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Supply Chain Planning

- Definition of a set of policies that govern short-term operations.
- Fixed by the supply configuration from previous phase.
- Starts with a forecast of demand in the coming year.



Supply Chain Planning

- Planning decisions:
 - Which markets will be supplied from which locations
 - Planned buildup of inventories
 - Subcontracting, backup locations
 - Inventory policies
 - Timing and size of market promotions
- Must consider in planning decisions demand uncertainty, exchange rates, competition over the time horizon.



Supply Chain Operation

- Time horizon is weekly or daily.
- Decisions regarding individual customer orders.
- Supply chain configuration is fixed and operating policies are determined.
- Goal is to implement the operating policies as effectively as possible.
- Allocate orders to inventory or production, set order due dates, generate pick lists at a warehouse, allocate an order to a particular shipment, set delivery schedules, place replenishment orders.
- Much less uncertainty (short time horizon).

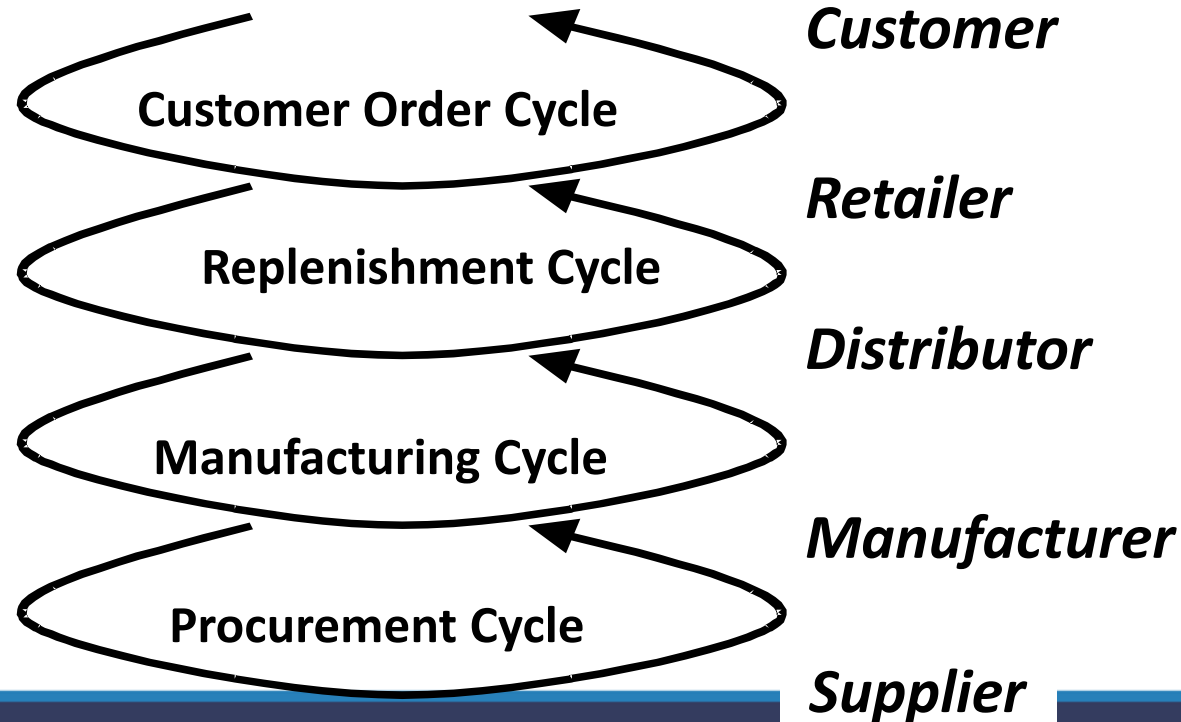


Process View of a Supply Chain

- **Cycle view:** processes in a supply chain are divided into a series of cycles, each performed at the interfaces between two successive supply chain stages.
- **Push/pull view:** processes in a supply chain are divided into two categories depending on whether they are executed in response to a customer order (pull) or in anticipation of a customer order (push).



Cycle View of Supply Chains



Cycle View of a Supply Chain

- Each cycle occurs at the interface between two successive stages
- Customer order cycle (customer-retailer)
- Replenishment cycle (retailer-distributor)
- Manufacturing cycle (distributor-manufacturer)
- Procurement cycle (manufacturer-supplier)
- Cycle view clearly defines processes involved and the owners of each process. Specifies the roles and responsibilities of each member and the desired outcome of each process.



THANK YOU

