

CENTRE	: DDU KAUSHAL KENDRA
NAME OF THE PROGRAMME	: B.VOC(LOGISTICS AND SUPPLY CHAIN MANAGEMENT)
PROGRAM CODE	: 3UABVOC(LSCM)
COURSE CODE	: LSCM17204
COURSE NAME	: SUPPLY CHAIN MANAGEMENT
SEMESTER	: II
FACULTY NAME	: MR.RAJKUMAR
DESIGNATION	: ASSISTANT PROFESSOR
TOPIC	: BASICS OF SUPPLY CHAIN MANAGEMENT

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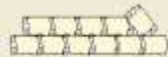
**TOPIC:BASICS SUPPLY CHAIN
MANAGEMENT**

SUPPLY CHAIN FOR DENIM JEANS

Tier 3
Cotton Suppliers
(China, U.S.)



Cotton Suppliers
(Mexico, India)



Indigo Dye
(China, India)



Tier 2

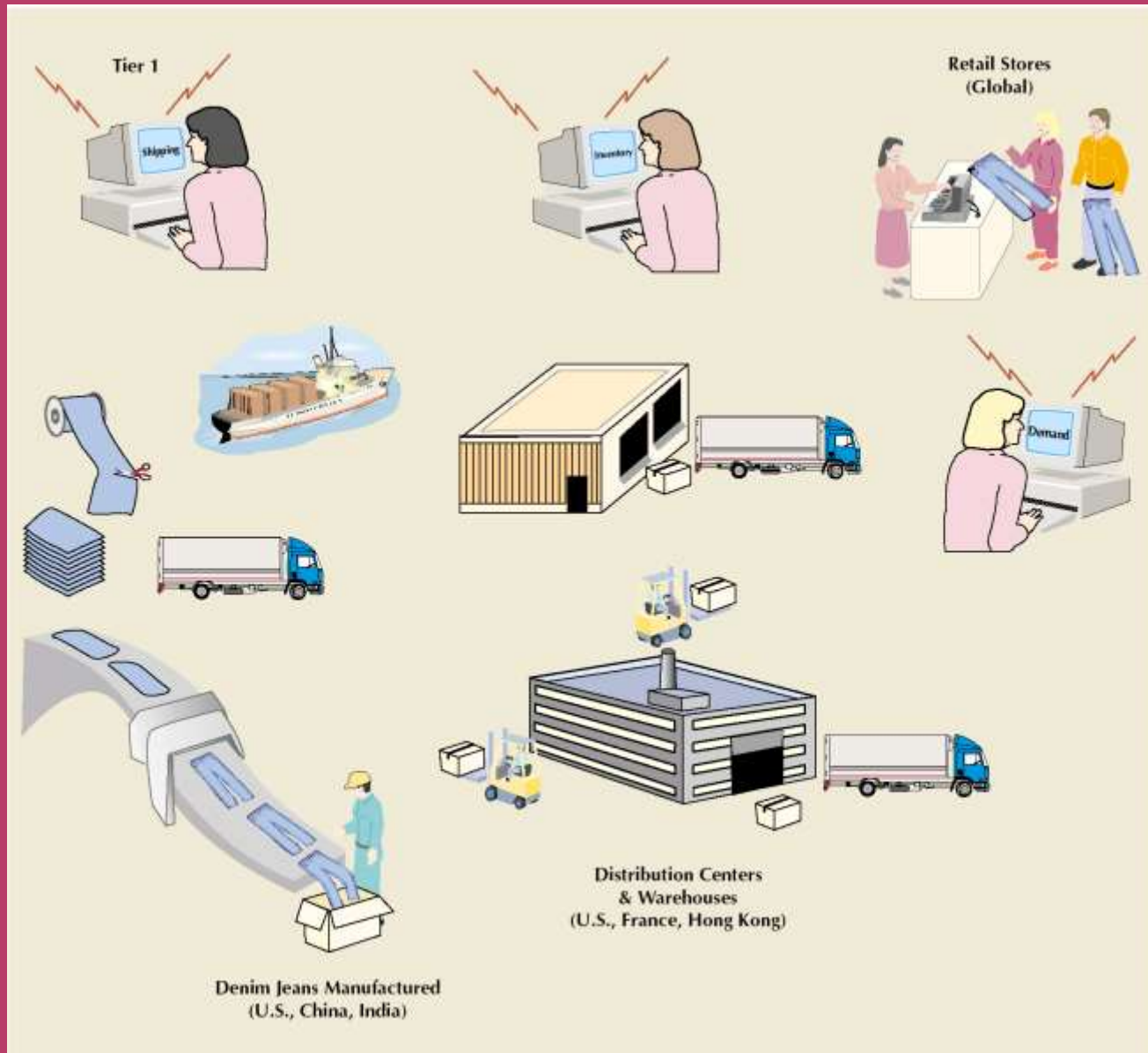


Thread
(China)



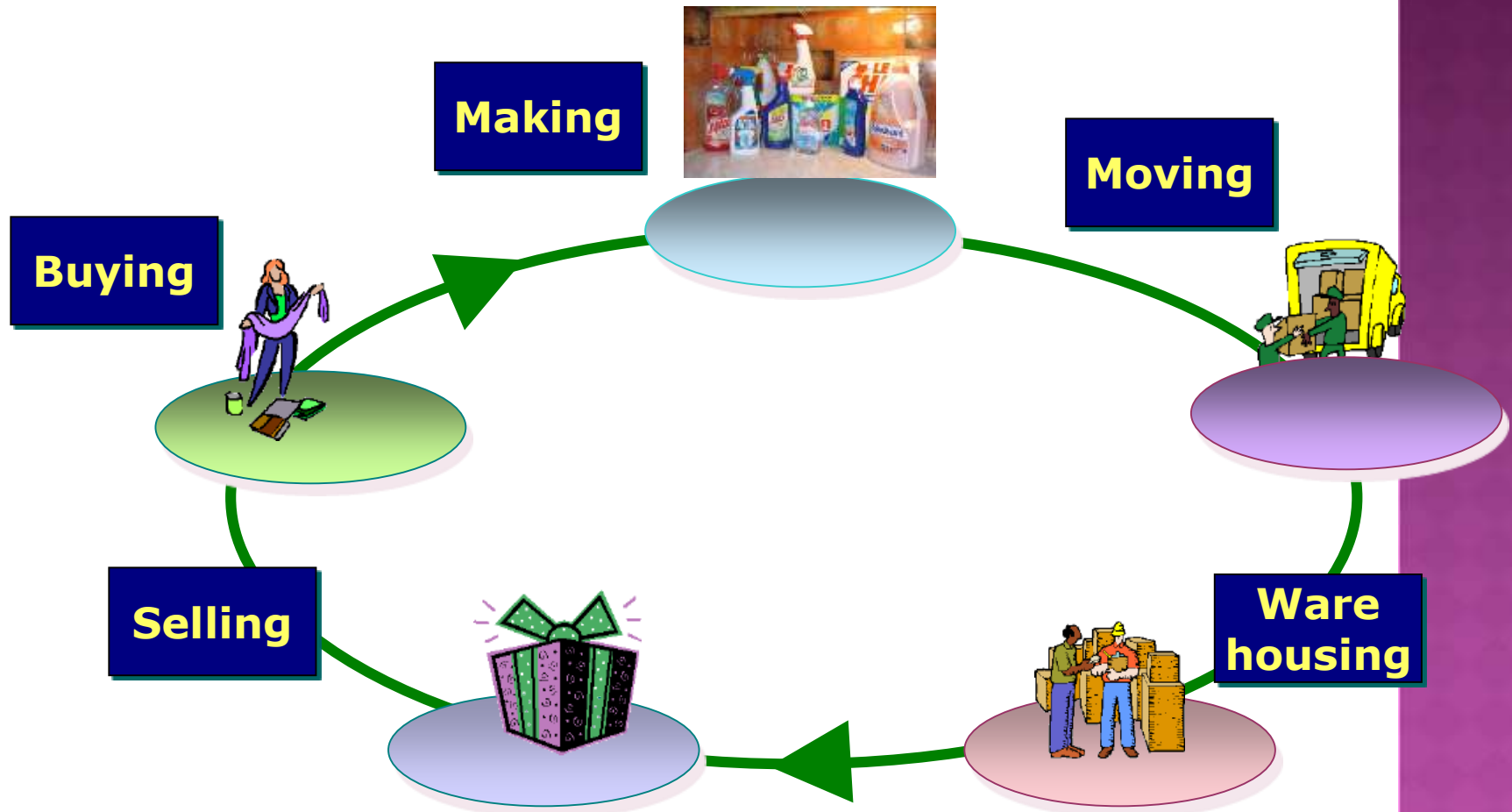
Denim Cloth Manufactured
(U.S., India, China)

SUPPLY CHAIN FOR DENIM JEANS (CONT.)



WHAT IS SCM ?

SCM is a business network covering from buying, making, moving, warehousing to selling



WHAT IS SC?

- A supply chain consists of all parties involved, directly or indirectly in fulfilling customer requirement.
- It includes the manufacturer , the supplier, transport, warehouse, retailer & customers themselves.
- It is dynamic and involves the constant flow of information, product, funds etc between various stages

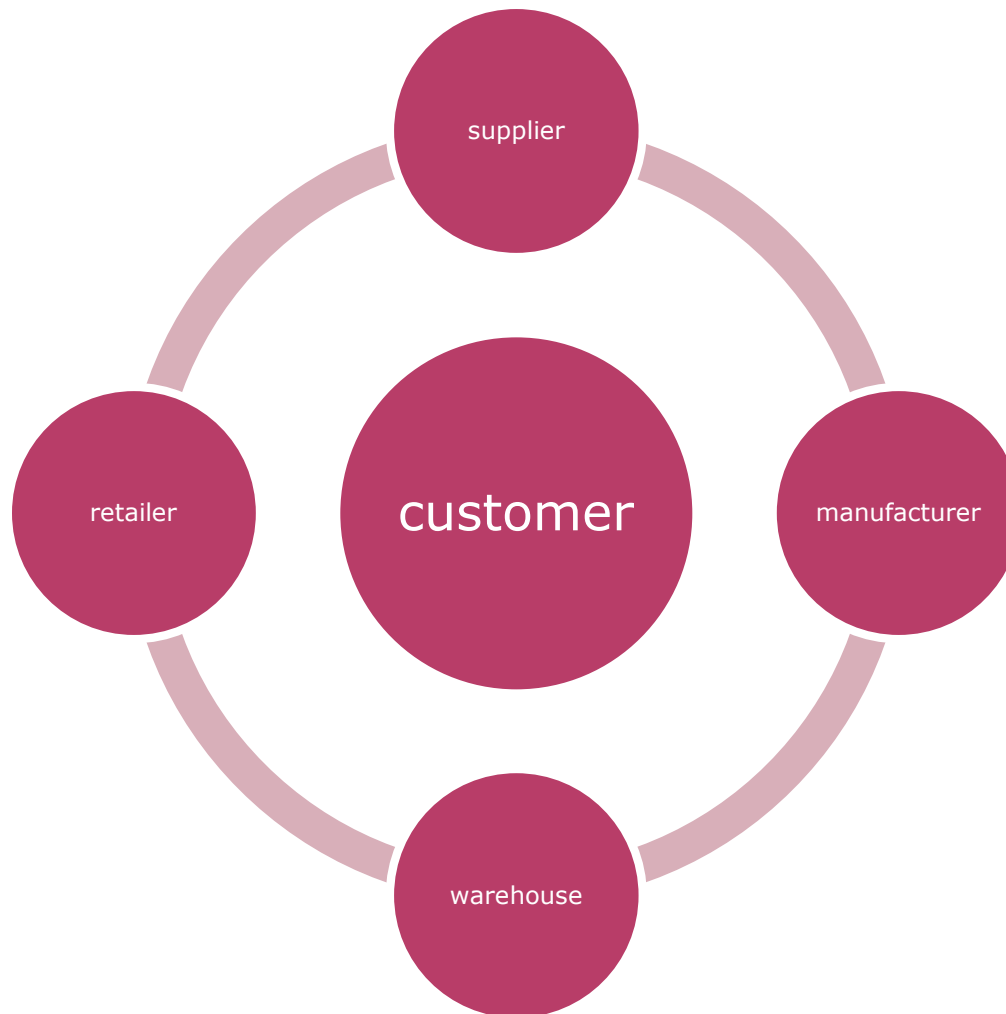
MEANING

- ◉ Supply chain management (SCM) is the management of a network of interconnected business involved in the ultimate provision of product and service packages required by end customers. Supply chain management spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption .

DEFINITION

- According to the Council of Supply Chain Management Professionals(CSCMP), supply chain management encompasses the planning and management of all activities involved in sourcing, procurement, conversion, and logistics management. It also includes the crucial components of coordination and collaboration with channel partners, which can be suppliers, intermediaries, third-party service providers, and customers.

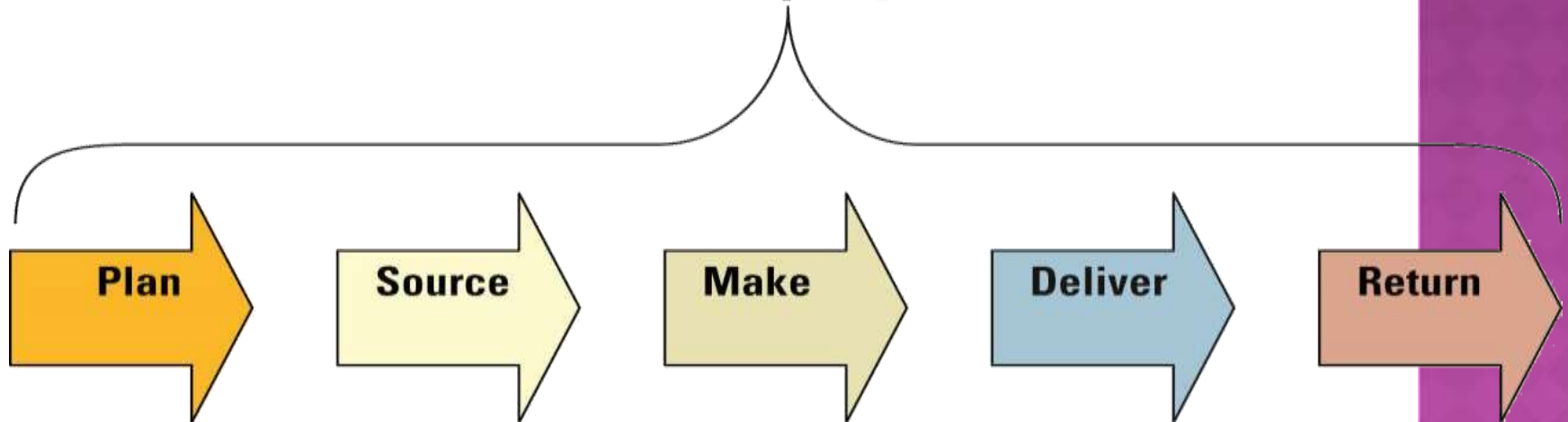
SUPPLY CHAIN CYCLE



BASICS OF SUPPLY CHAIN



Company

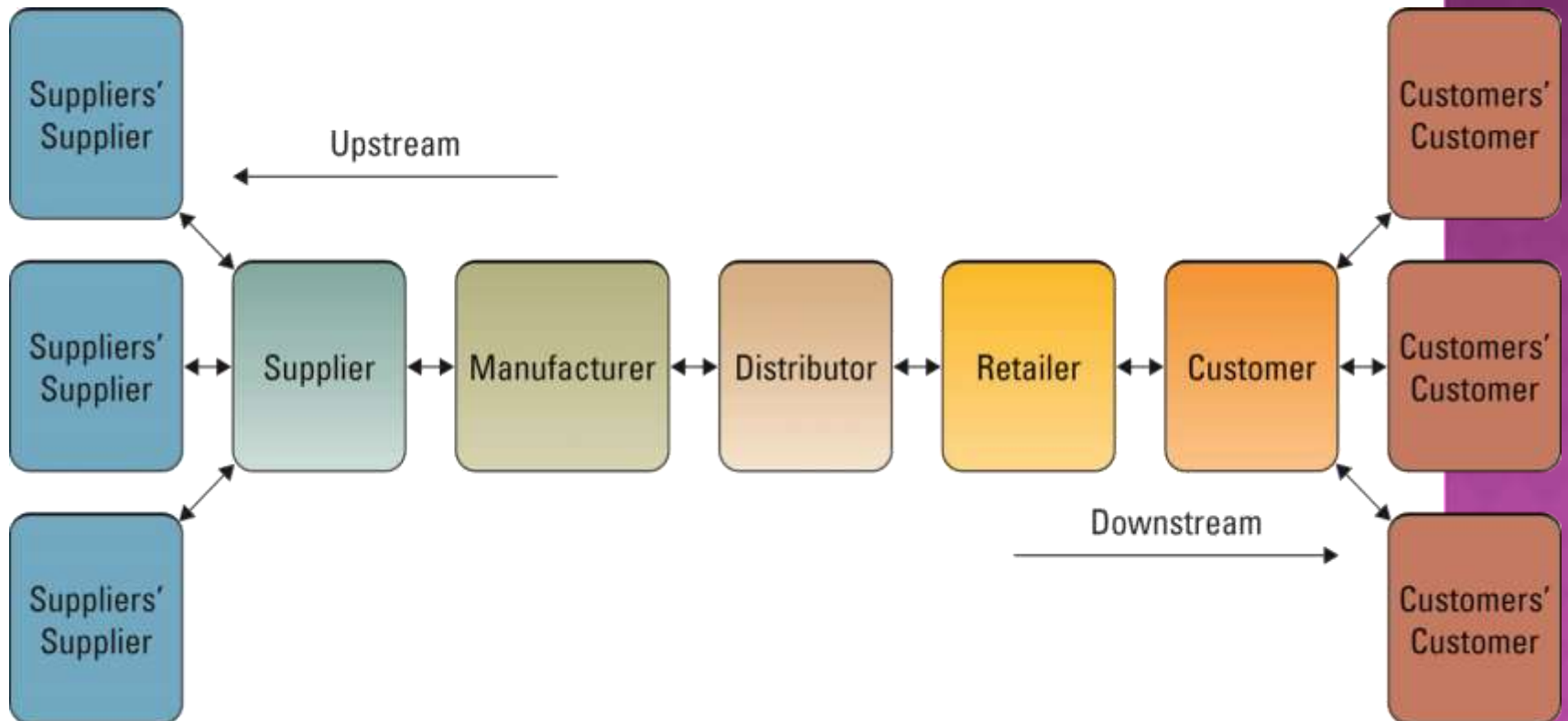


MODEL OF SUPPLY CHAIN OPERATIONS

- ◉ **Plan:** means all operations needed to plan and organize the operations in the other three categories.
- ◉ **Source:** the activities necessary to acquire the inputs to create products or services.
- ◉ **Make:** the operations required to develop and build the products and services that a supply chain provides.
- ◉ **Deliver:** the activities that are part of receiving customer orders and delivering products to customers.

BASICS OF SUPPLY CHAIN

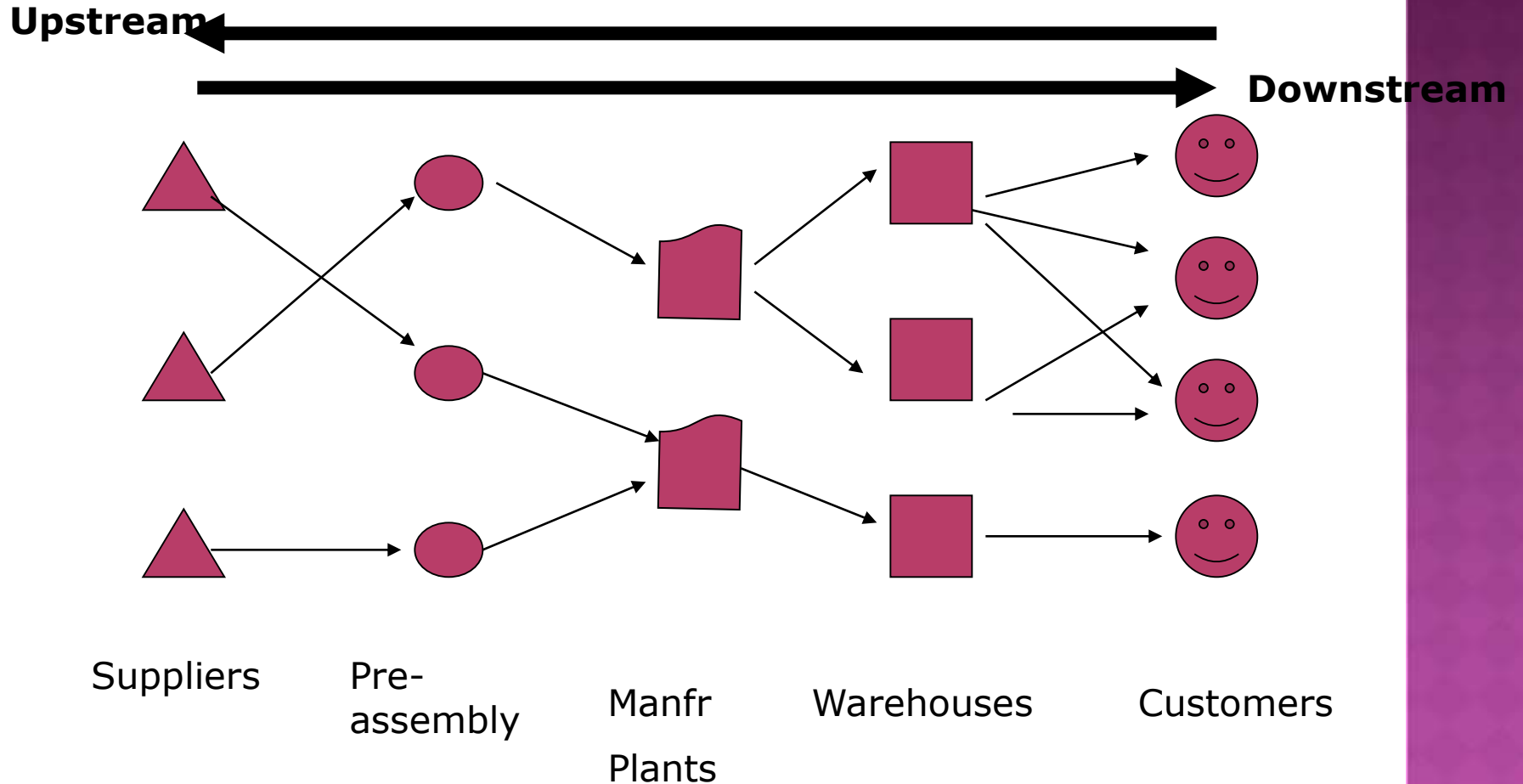
- Organizations must embrace technologies that can effectively manage supply chains



BASICS OF SUPPLY CHAIN

- The supply chain has three main links:
 1. Materials flow from suppliers and their “upstream” suppliers at all levels
 2. Transformation of materials into semifinished and finished products through the organization’s own production process
 3. Distribution of products to customers and their “downstream” customers at all levels

SCHEMATIC REPRESENTATION



SUPPLY CHAIN NETWORK/ WEB



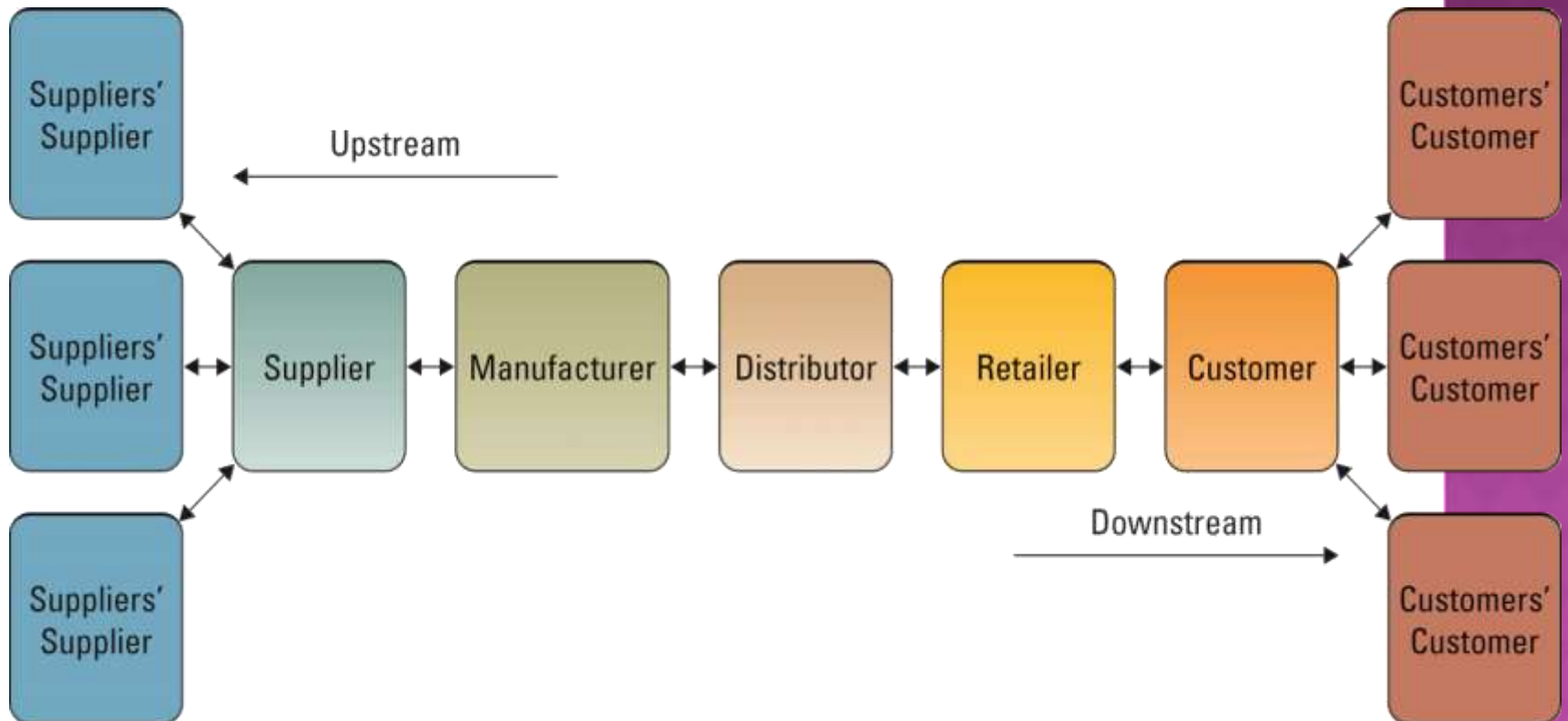
STAGES OF SUPPLY CHAIN

The stages of supply chain includes:

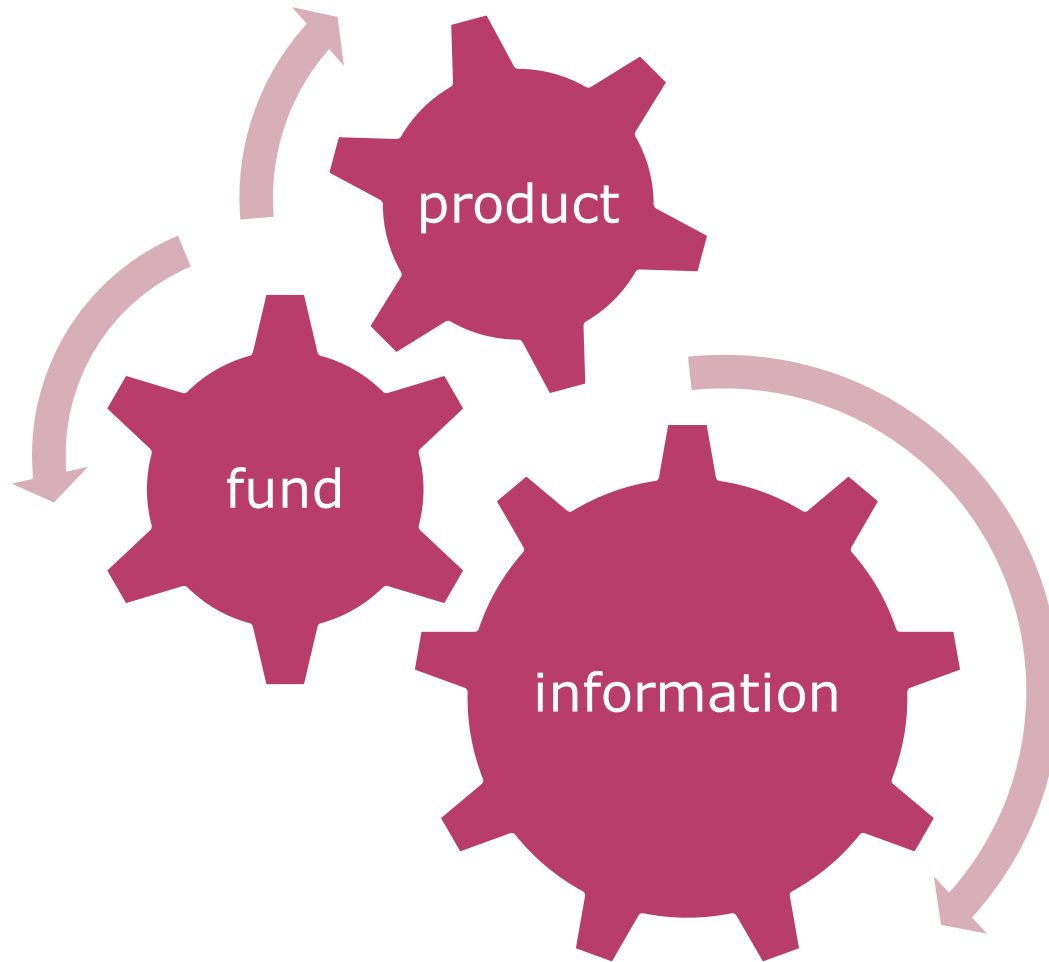
- Customers
- Retailers
- Wholesalers/Distributors
- Manufacturers
- Suppliers

STAGES OF SUPPLY CHAIN

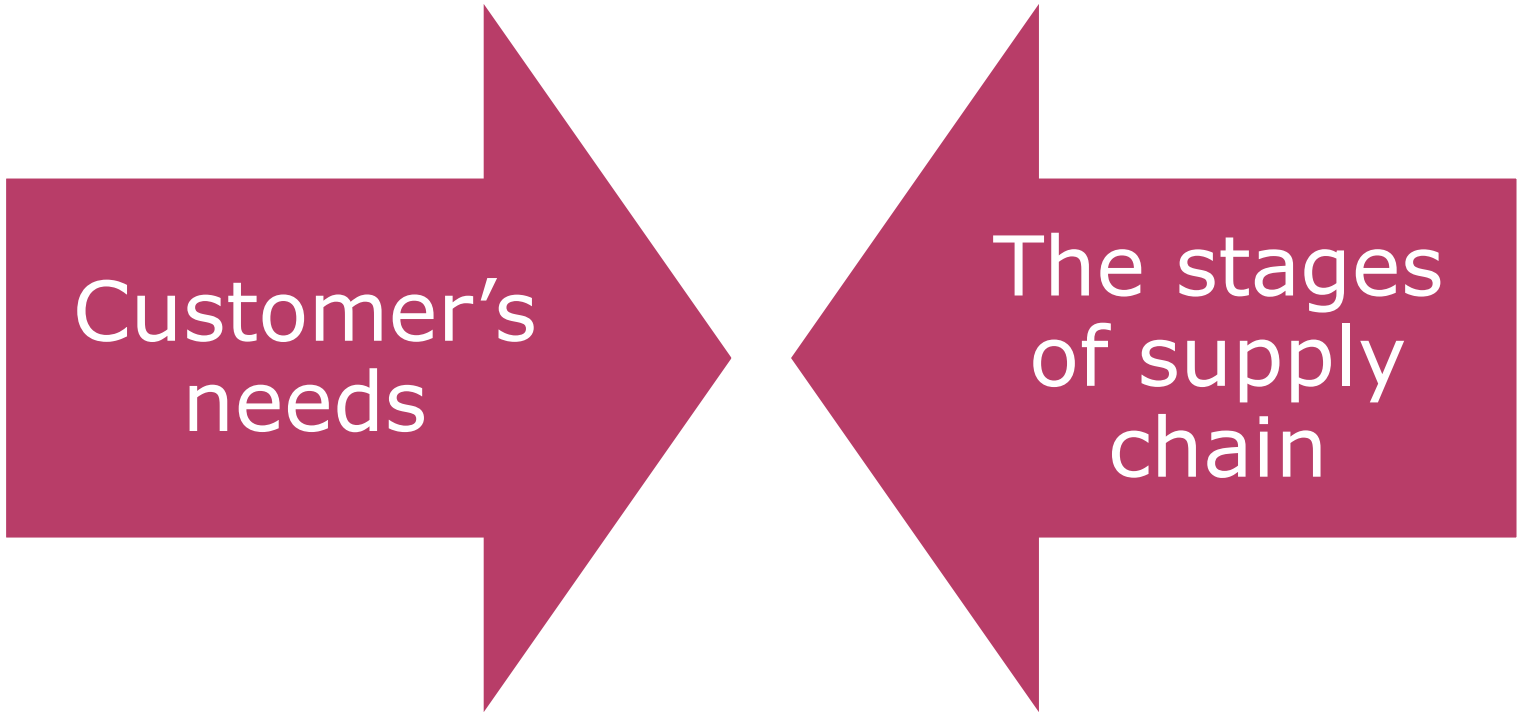
- Organizations must embrace technologies that can effectively manage supply chains



CONNECTIVITY OF SUPPLY CHAIN



SUPPLY CHAIN DESIGN



Customer's
needs

The diagram consists of two large, maroon-colored arrows pointing towards each other, meeting at a central point. The left arrow points right and contains the text 'Customer's needs'. The right arrow points left and contains the text 'The stages of supply chain'. The background is white, and there is a vertical purple bar on the far right edge of the slide.

The stages
of supply
chain

OBJECTIVES OF SUPPLY CHAIN

- To maximize the overall value generated.
- The success of supply chain should be measured in terms of SC profitability . (supply chain surplus)
- Success in revenue & cost.
- Effective management of SC assets, information, products & funds.

IMPORTANCE OF SC

DECISION PHASES

SC Strategy/ Design

- Given the marketing & pricing plan.
- SC Configuration should match strategic objectives.
- increase the supply chain surplus.

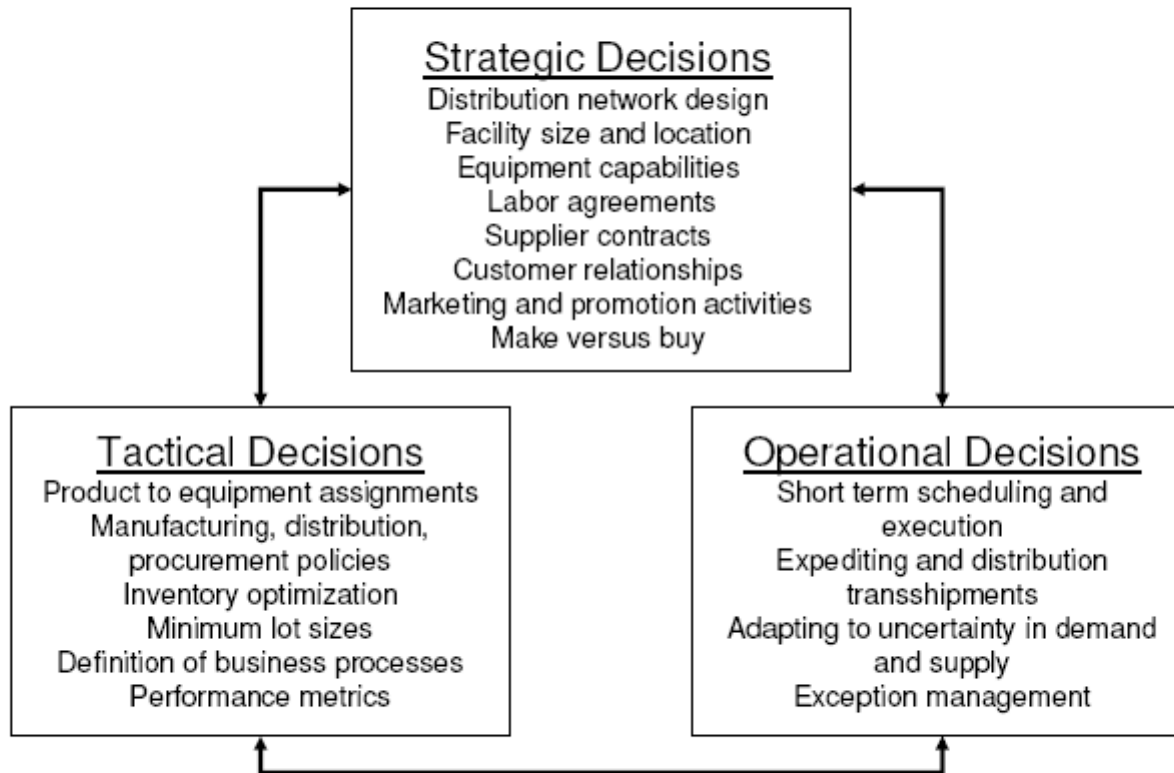
SC Planning

- to maximize the surplus that can be generated over the plan given the constraints.
- It is done with the forecast future demand.
- Market, locations, subcontracting of manufacturer, inventory policies, time frame, price, promotion etc.

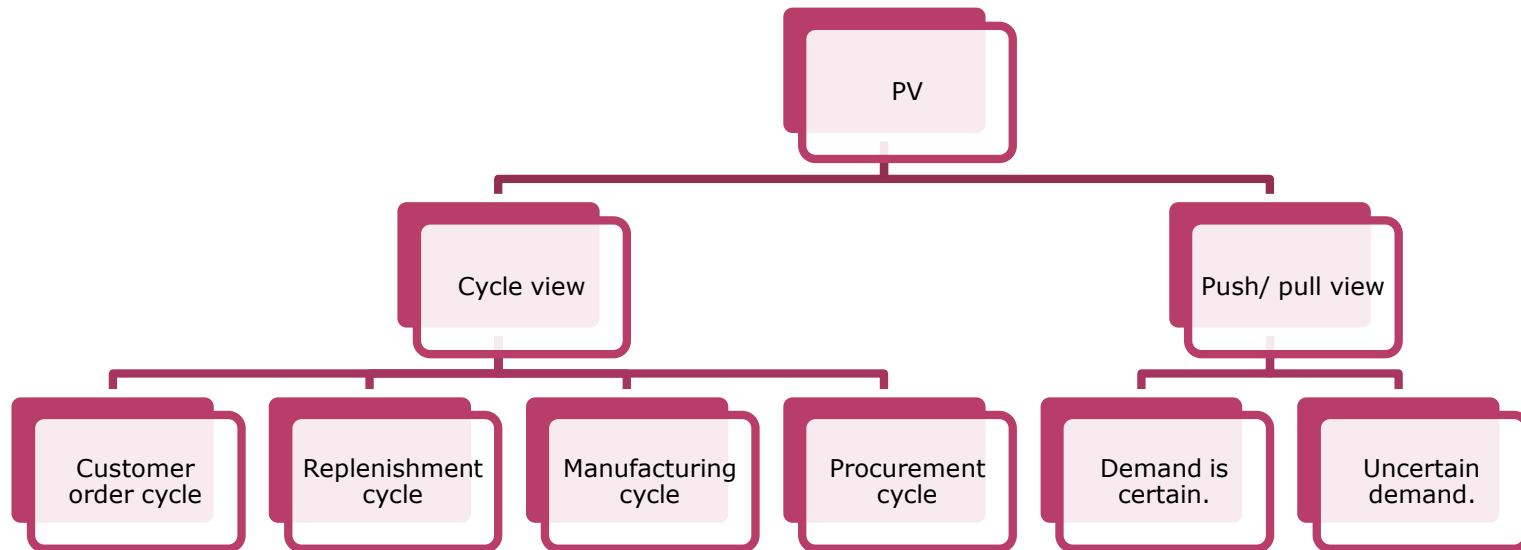
SC Operation

- Individual customer order.
- Handling incoming orders in the best manner.
- Order fill date, pick list @ warehouse, shipping or shipment, delivery schedules etc.
- To exploit the reduction of uncertainty & optimize performance.

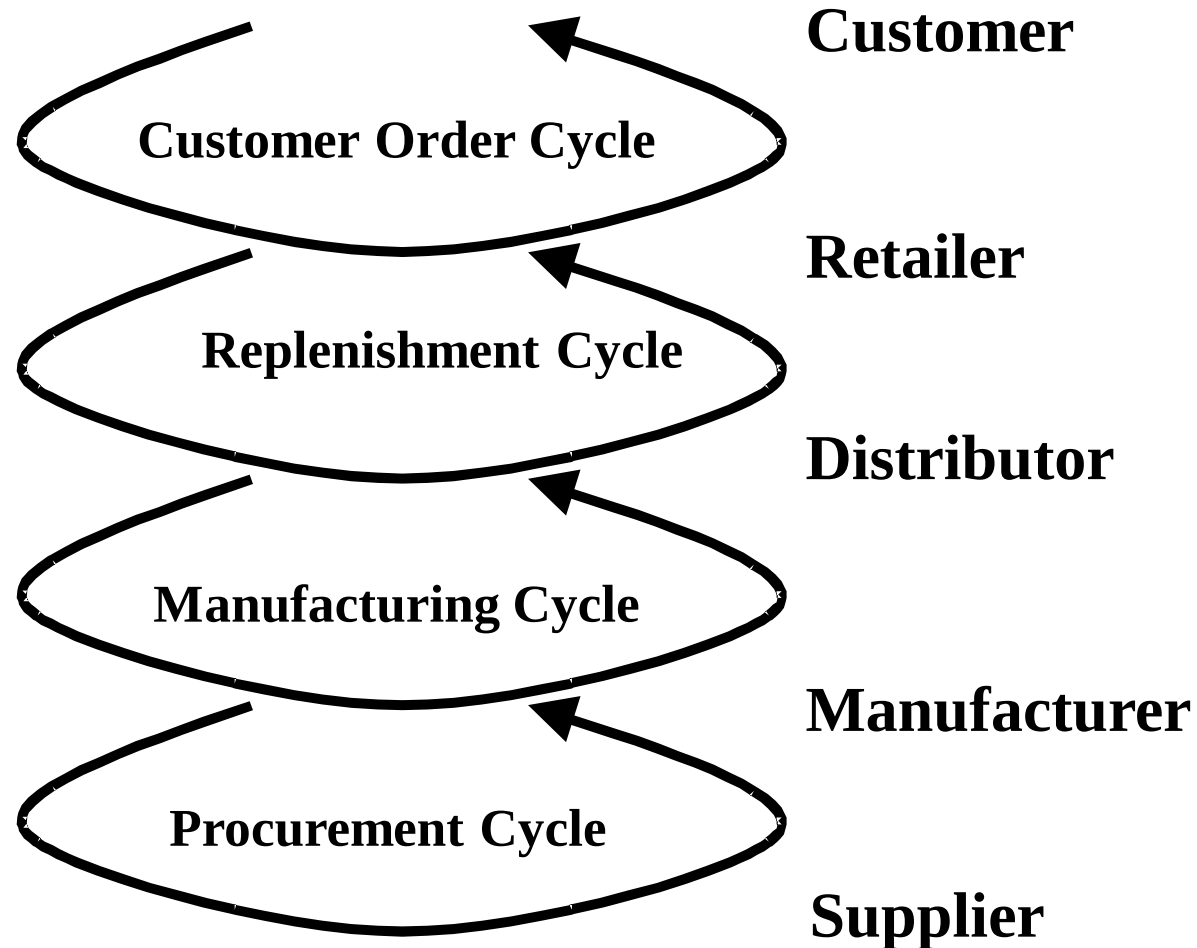
Supply Chain Decision Making



PROCESS VIEW OF SC



CYCLE VIEW OF SUPPLY CHAINS



CUSTOMER CYCLE

- ◉ Customer arrival
- ◉ Customer order entry
- ◉ Customer order fulfillment
- ◉ Customer order receiving

REPLENISHMENT CYCLE

The objective of the replenishment cycle is to replenish inventories at the retailer at minimum cost while providing high product availability

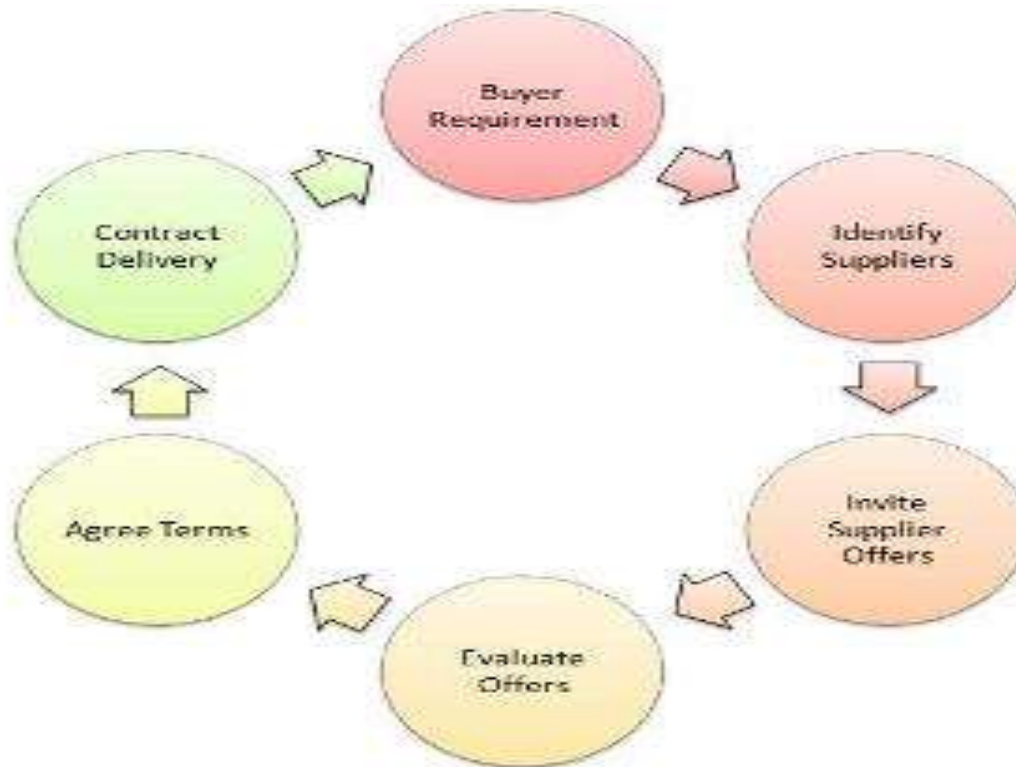
- ◉ Retail order trigger
- ◉ Retail order entry
- ◉ Retail order fulfillment
- ◉ Retail order receiving

MANUFACTURING CYCLE

The manufacturing cycle typically occurs at the distributor/manufacturer (or retailer/manufacturer) interface and includes all processes involved in replenishing distributor (or retailer) inventory.

- ◉ Order arrival from the finished-goods warehouse, distributor, retailer, or customer
- ◉ Production scheduling
- ◉ Manufacturing and shipping
- ◉ Receiving at the distributor, retailer, or customer

PROCUREMENT CYCLE



PROCUREMENT CYCLE

Delivery management comprises a number of distinctly different processes and sub processes, namely:

- ◉ planning which comprises the iterative processes of identifying objectives, programmers' and projects that are to be undertaken;
- ◉ project delivery which comprises the undertaking of the projects identified in the planning processes;
- ◉ programme completion where the programme objectives set are regularly evaluated and adjusted accordingly

PUSH/PULL MODEL

Push-based model:

- Production master schedules based on forecasts of demand for products, and products are “pushed” to customers

Pull-based model:

- Supply chain driven by actual customer orders or purchases

Push- versus Pull-Based Supply Chain Models

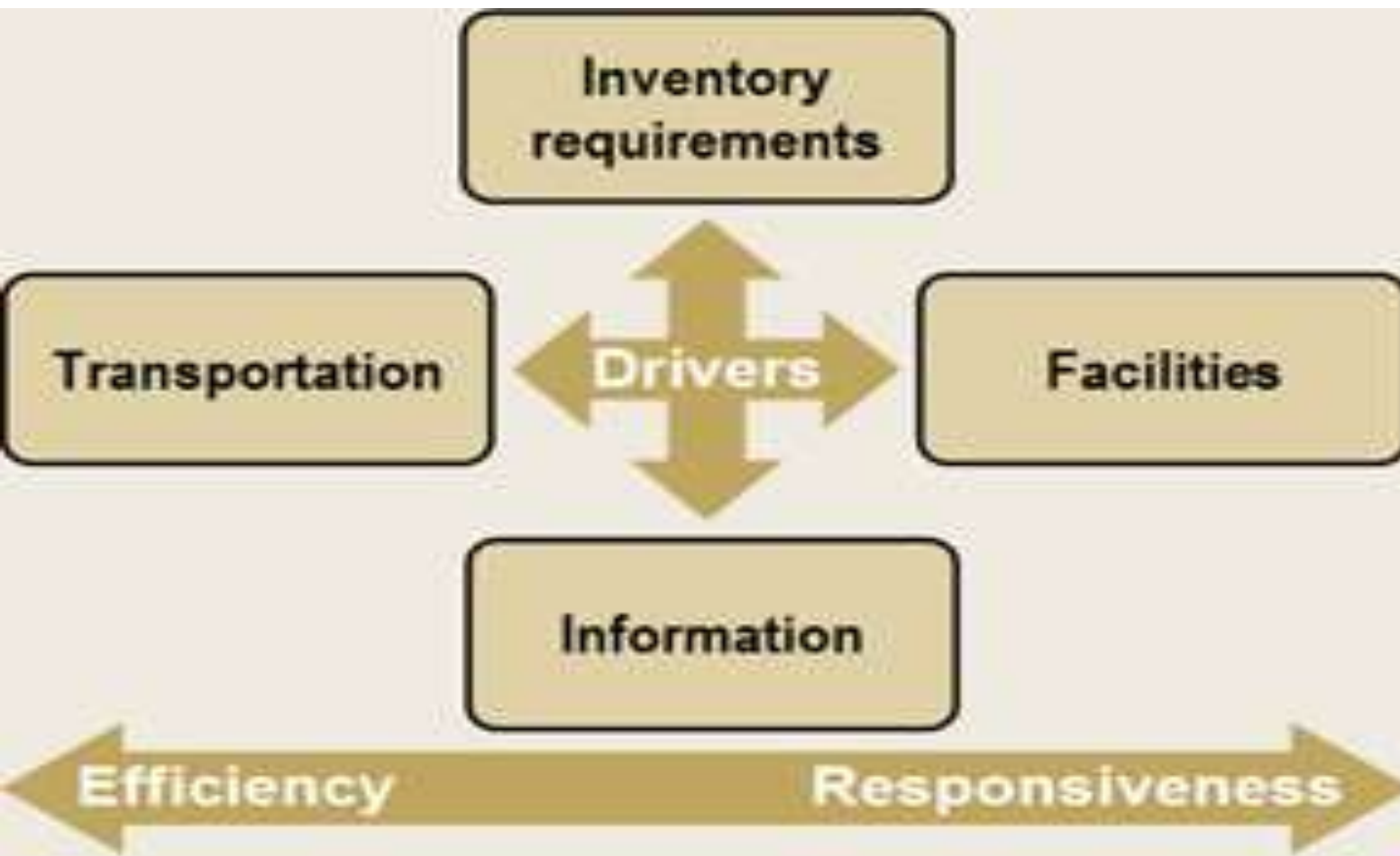
Push-Based Model



Pull-Based Model



DRIVERS OF SUPPLY CHAIN PERFORMANCE



INVENTORY

It consists of all raw material, work in process, and finished goods within a supply chain.

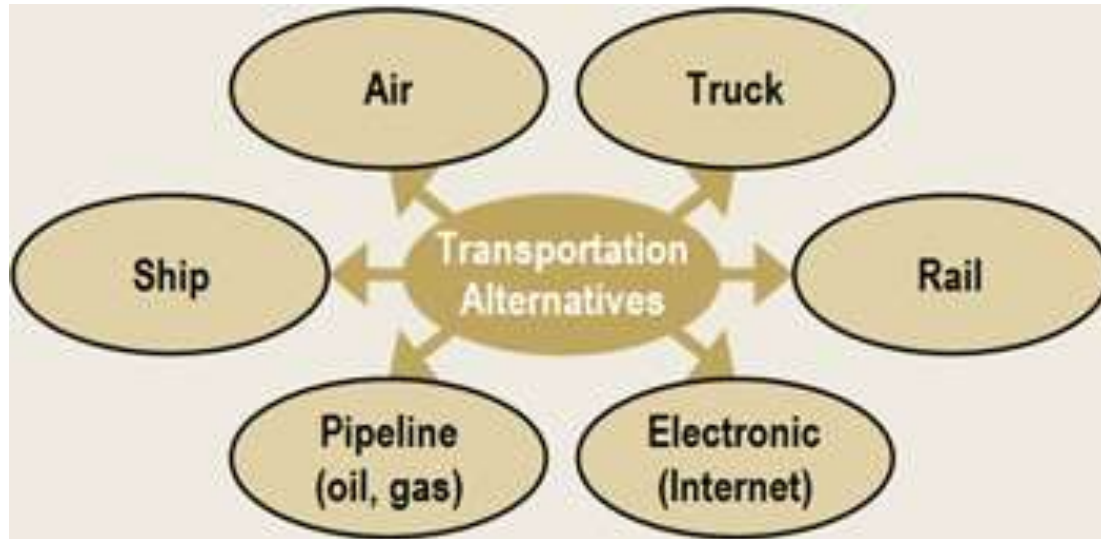
- ◉ **Cycle inventory:** This results due to producing or buying larger lots to minimize acquisition costs related to processing each purchase order or production order.
- ◉ **Safety Inventory:** It is held to counter against uncertainty or variability of demand.
- ◉ **Seasonal Inventory:** It is inventory maintained to satisfy higher demands in a period compared to production capacity. It arises due to the decision to service predicted variability in demand through extra production during slack period or low demand periods.

TRANSPORTATION

Mode of Transportation : Six basic modes exist

- ◉ Air
- ◉ Truck (Road)
- ◉ Rail
- ◉ Ship
- ◉ Pipeline
- ◉ Electronic transportation (the newest mode for music, documents etc)

DRIVER 2: TRANSPORTATION



- ◉ **Transportation moves the product between different locations in a supply chain**
- ◉ **Transportation is prominent in a company's competitive strategy**
- ◉ **The fundamental trade-off for transportation is cost (efficiency) versus speed (responsiveness)**

TRANSPORTATION

Route and Network Selection

Network is a set of facilities or destinations which can be used for transportation of goods. Route is a specific selection of facilities or destinations through which goods move.

Own Transport or Outsourced Transport



FACILITIES

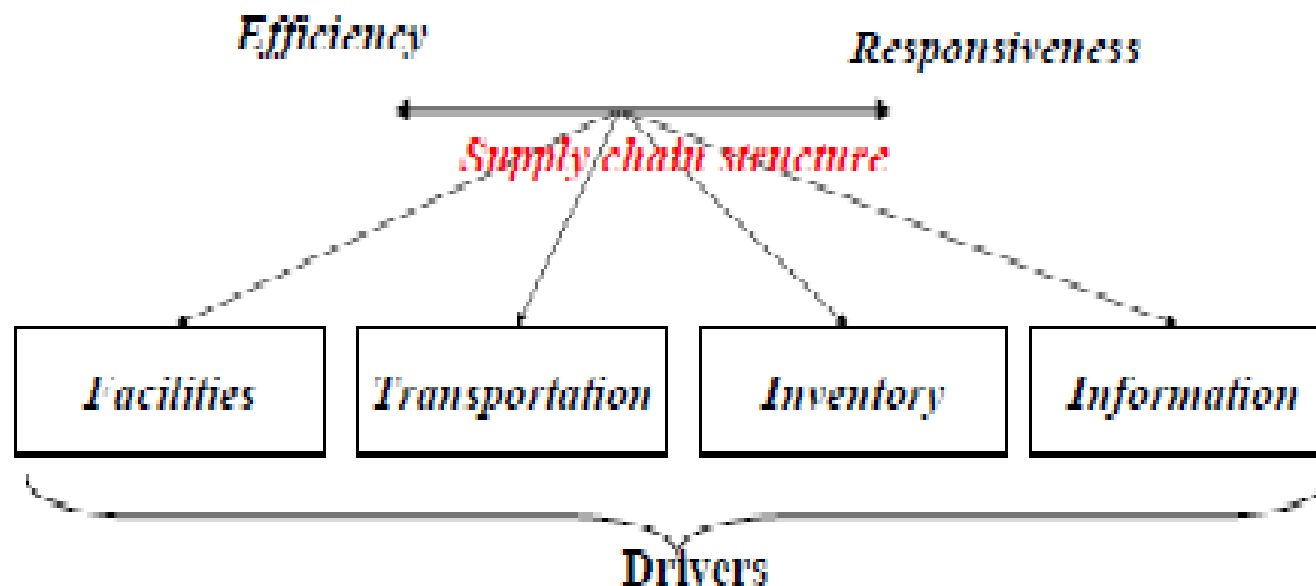
Facilities Related Decisions

- ◉ Location
- ◉ Capacity
- ◉ Manufacturing Methodology or Technology
- ◉ Warehousing methodology

INFORMATION

- ◉ Push Process Information and Pull Process Information
- ◉ Coordination and information sharing across various facilities in the supply chain.
- ◉ Forecasting
- ◉ Aggregate Planning
- ◉ Enabling technologies

A Framework for Structuring Drivers



DRIVERS OF SUPPLY CHAIN PERFORMANCE

- ◉ Facilities
 - places where inventory is stored, assembled, or fabricated
 - production sites and storage sites
- ◉ Inventory
 - raw materials, WIP, finished goods within a supply chain
 - inventory policies
- ◉ Transportation
 - moving inventory from point to point in a supply chain
 - combinations of transportation modes and routes
- ◉ Information
 - data and analysis regarding inventory, transportation, facilities throughout the supply chain
 - potentially the biggest driver of supply chain performance
- ◉ Sourcing
 - functions a firm performs and functions that are outsourced
- ◉ Pricing
 - Price associated with goods and services provided by a firm to the supply chain

EXAMPLE: DELL

- ◉ Customer
- ◉ Website
- ◉ Assembly Plants
- ◉ Warehouses
- ◉ Dell's suppliers and their suppliers
- ◉ Dell "builds-to-order"
- ◉ Dell does not have retailers, wholesalers