

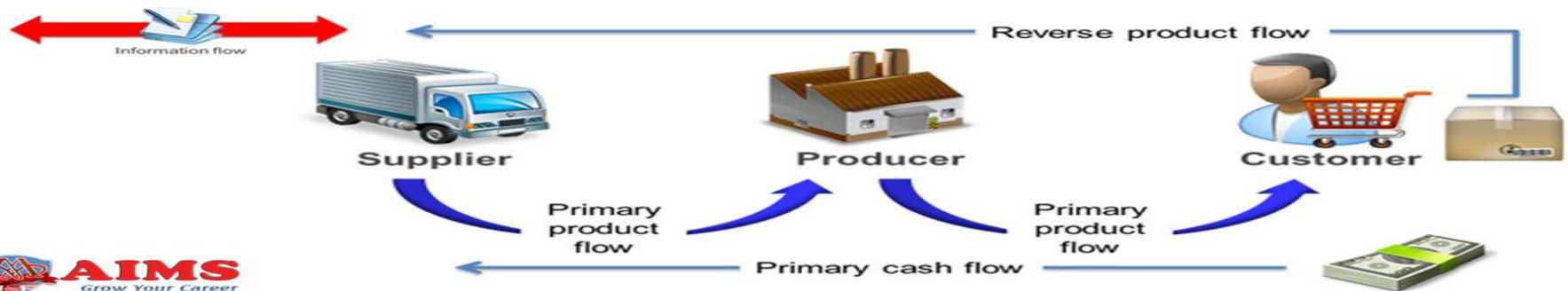
Unit 3: Overview of Supply Chain Management

- ❑ Definition of Supply Chain Management
- ❑ Functions and Objective of a Supply Chain
- ❑ Decision phases of Supply Chain
- ❑ Process View of a Supply Chain - Cycle View and Pull/Push View
- ❑ The importance of a supply chain flows
- ❑ Pitfalls and opportunities in a Supply Chain
- ❑ **Case Studies presentations**
 - Dell Computer: Direct Marketing
 - 7-Eleven: A convenience Store
 - Toyota: A Global Auto Manufacturer
 - Amazon.com: An e-Business Summary

□ Meaning of Supply Chain Management

- **Supply chain management (SCM)**, the management of the flow of goods and services, involves the movement and storage of raw materials, of work-in-process inventory, and of finished goods from point of origin to point of consumption.
- **Supply chain management** is a set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses, and stores, so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide costs while satisfying service level requirements.

WHAT IS SUPPLY CHAIN MANAGEMENT?



□ Definition of Supply Chain Management

Managing supply and demand, sourcing raw materials and parts, manufacturing and assembly, warehousing and inventory tracking, order entry and order management, distribution across all channels, and delivery to the customer.

The Supply Chain Council

A supply chain consists of all stages involved, directly or indirectly, in fulfilling a customer request. The supply chain not only includes the manufacturer and suppliers, but also transporters, warehouses, retailers, and customers themselves.

Chopra and Meindl

Features of Supply Chain Management

- Integrated behavior
- Mutually sharing Information
- Mutually sharing channel risk and rewards
- Co-operation
- Focus on serving customers
- Integration of processes
- Partners to build and maintain long term relationship

Functions of a Supply Chain

- Forecasting
- Purchasing
- Inventory management
- Information management
- Quality assurance
- Scheduling
- Production and delivery
- Customer service

❑ Objectives of a Supply Chain

- Service and System orientation
- Competitiveness and efficiency
- Minimizing the time and work in progress
- Improving pipe line visibility, demand, supply and quality
- Reduce transportation and warehousing cost

❑ Decision Phases of Supply Chain

Successful supply chain management **requires decisions** on the flow of information, product, and funds that fall into three decision phases:-

- Supply chain strategy or design
- Supply chain planning
- Supply chain operation

TIME FRAME

TYPE

Years

Strategic

- Supply chain network design (How many plants? Location and capacities of plants and warehouses?)
- Supply chain strategies (Sell direct or through retailers? Outsource or in-house? Focus on cost or customer service?)
- Product mix at each plant

3 mo.- 1year

Tactical

- Workforce & Production planning
- Inventory policies (safety stock level)
- Which locations supply which markets
- Transportation strategies

Daily

Operational

- Production scheduling
- Decisions regarding individual orders
- Place replenishment orders

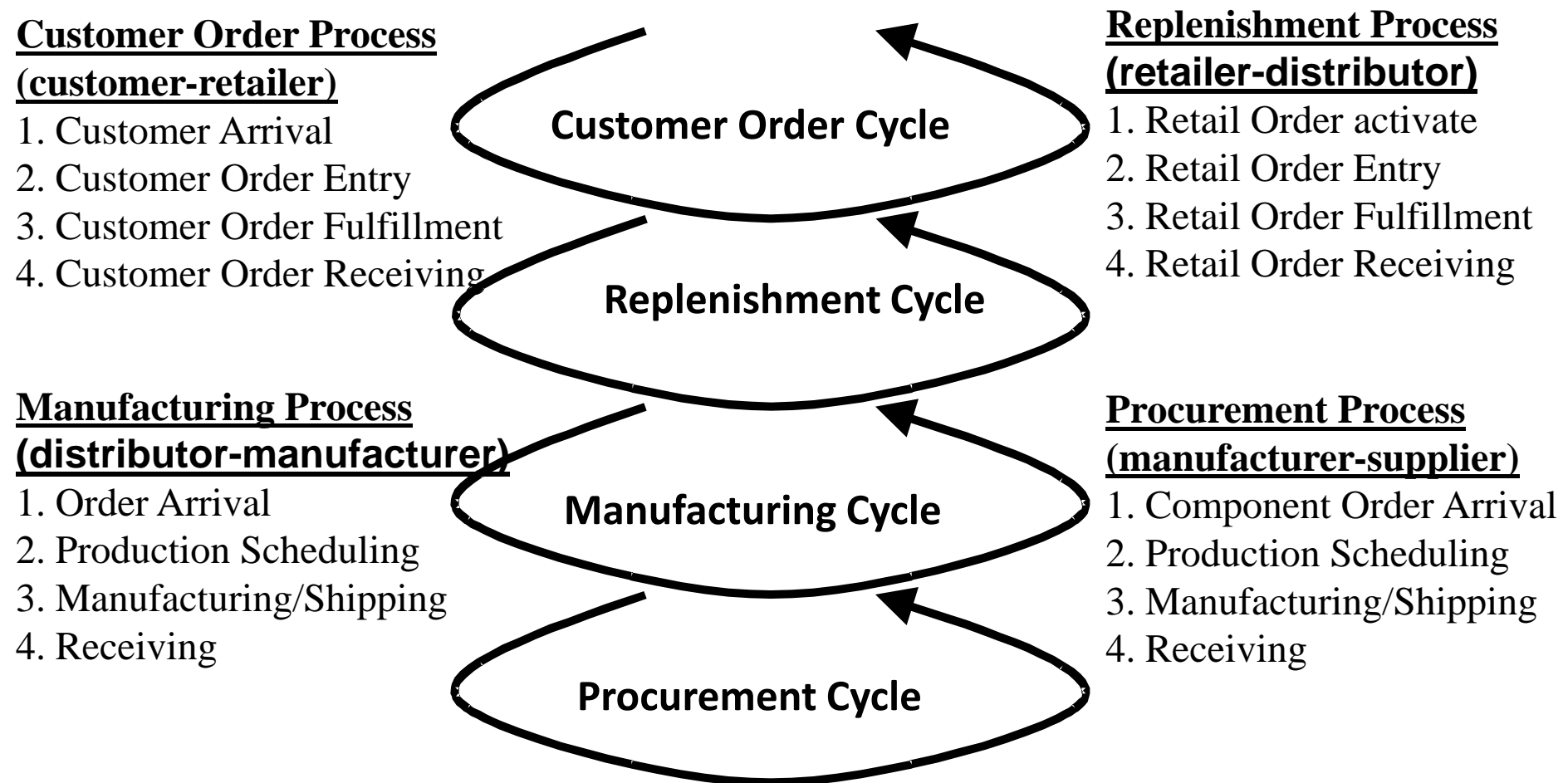
Process View of a Supply Chain - Cycle View and Pull/Push View

- Cycle view**
- Push/pull view**

Cycle view

- The processes in a supply chain are divided into a series of cycles, each performed at the interface between two successive stages of a supply chain.**

Cycle View of Supply Chain Processes

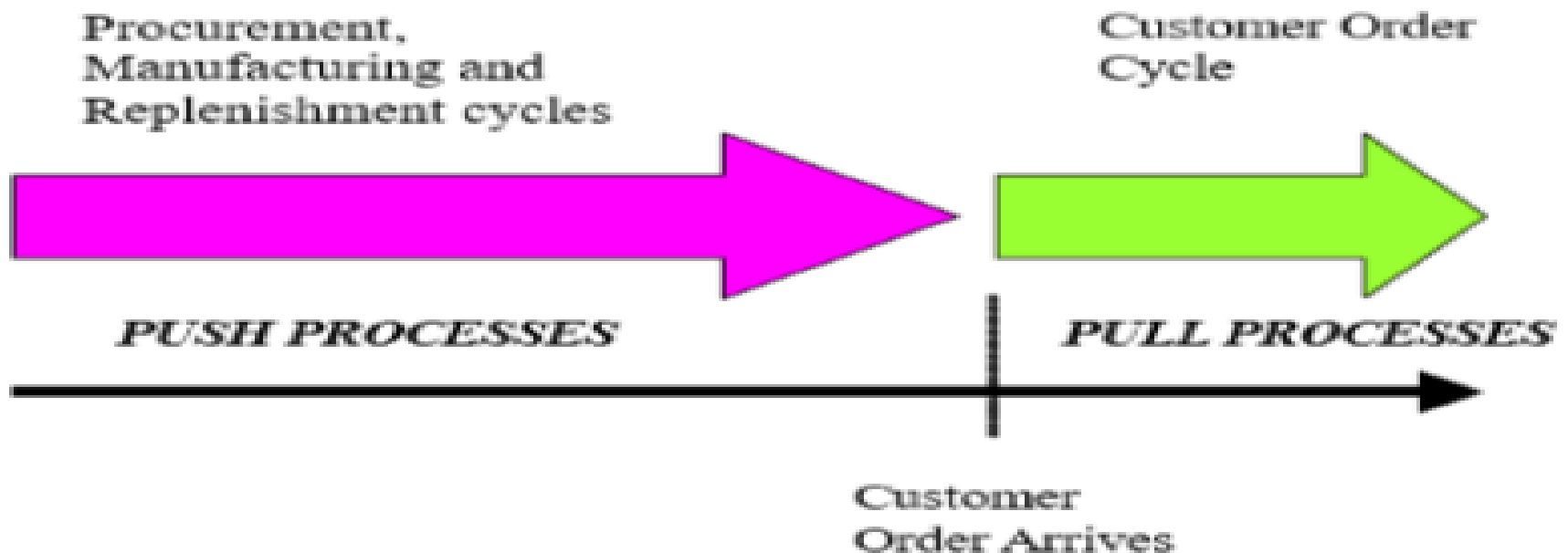


❑ Push System

- In a push-based supply chain, **products are pushed through the channel from manufacturer to the retailers**. This means that production happens based on **demand forecast**.
- In inventory, push systems are **those where the business orders products with the aim of selling**. In other words, the business pushes its existing stock on the consumer.
- Push systems are like Enterprise Resource Planning (ERP) or Material Resource Planning (MRP) systems.
- **A great example** of using a push system would be a **bakery** where the decision on which goods and which quantities to bake is done according to how much is expected to be sold. As people are not willing to wait an hour for their morning bagel after they put in an order, a push system is used.

❑ Push View

- ❑ The main advantages of this strategy include **enabling long-term planning, readily available stock, economies of scale, and allows for more planning and control.**
- ❑ However, the main weakness of a push strategy is that it takes a long time to react to changes in the marketplace.



□ Pull System

- In a pull-based supply chain, **procurement, production, and distribution are demand-driven rather than based on predictions.** Goods are produced in the amount and time needed.
- Under the pull supply chain, **the process of manufacturing and supplying is driven by actual customer demand.** In this type of supply chain logistics, inventory is acquired on a need-basis. The benefits of this type of planning include less wastage in the case of lower demand.
- They prefer pull-based manufacturing approach, in which **the production is based on actual demand.** Unlike push model, a pull model leads to more streamlined supply chain by avoiding overproduction, excess inventory carrying cost and save storage space.

Commodity and Cost-centric Supply Chain

- A commodity chain is a business process that involves gathering resources, transforming them into goods or commodities, and lastly distributing them to customers. It is a network of links that connect the many points of production and distribution to produce a commodity that is subsequently traded on the global market.
- All customer experience improvement activities integrated in the process of transporting finished products from suppliers to customers are referred to as customer-centric supply chain initiatives.

Objectives Commodity and Cost-centric Supply Chain

- Improving Efficiency and Quality
- Optimizing Transportation and Logistics
- Reducing Costs and Customer Satisfaction
- Improving Distribution and Coordination

□ The importance of a supply chain flows

- Purchasing** - Supplier alliances, supplier management, strategic sourcing
- Operations** - Demand management, **MRP**(Materials Requirements Planning), **ERP** (Enterprise Resources Planning), **JIT**(Just In Time), **TQM** (Total Quality Management)
- Distribution** - Transportation management, customer relationship management (CRM), network design, service response logistics
- Integration** - Coordination/Integration activities, global integration problems, performance measurement

Pitfalls and opportunities in a Supply Chain

Supply Chain Benefits and Drawbacks

<u>Pitfalls (Drawbacks)</u>	<u>Opportunities</u>
▪No supply chain metrics (relationship)	▪Quick response
▪Inadequate definition of customer service	▪Reduced holding costs
▪Inefficient information systems	▪Provide higher quality
▪Incomplete supply chain	▪Reduced cost
▪Organizational barriers	▪Able to match supply and demand
▪Ignoring the impact of uncertainties	▪Fewer parts simpler ordering
▪Inaccurate information system	▪Not decreasing in supply



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