

Supply Chain Management

Chapter 1 Understanding the Supply Chain

Cost of Logistics in the Manufacturing Firm

• Profit	4%
• Logistics Cost	21%
• Marketing Cost	27%
• Manufacturing Cost	48%

Impact of Supply Chain Decisions on a firm's performance

- Eliminated that the grocery industry could save \$20 billion by using effective logistics and supply chain strategies
 - A typical item of general goods 100 days from factory to shelf
 - A typical fast-food item 12 days from factory to restaurant

Impact of Supply Chain Decisions on a firm's performance

- Company estimates in loss \$ 2 billion to \$1 billion in sales in 1999 because large store were not available when and where needed

- ### Outline
- What is a Supply Chain?
 - Decision Phases in a Supply Chain
 - Process View of a Supply Chain
 - The Importance of Supply Chain Flow
 - Examples of Supply Chains

What is a Supply Chain?

- Introduction
- The objective of a supply chain

What is a Supply Chain?

- All stages involved, directly or indirectly in fulfilling a customer request
- Includes manufacturers, suppliers, transporters, warehouses, retailers and customers
- Within each company, the supply chain includes all functions involved in fulfilling a customer request (product development, marketing, operations, distribution, financial, customer service)
- Example: Fig. 1.1 Tesco's supply chain

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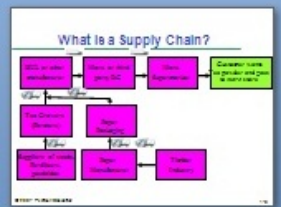
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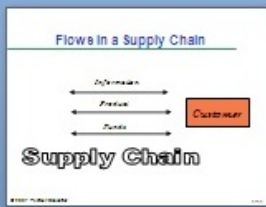
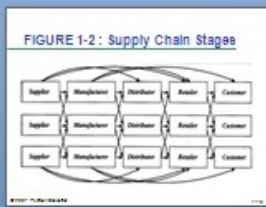
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What is a Supply Chain?

- Customer is an integral part of the supply chain
- Includes movement of information, funds, and products in both directions
- Typical supply chain stages: customers, retailers, distributors, manufacturers, suppliers (Fig. 1.2)
- All stages may not be present in all supply chains (e.g., no retailer or distributor for Dell)



The Objective of a Supply Chain

- Maximize overall value created
- Supply chain value: difference between what the final product is worth to the customer and the effort the supply chain expends in filling the customer's request
- Value is compared to supply chain profitability (difference between revenue generated from the customer and the overall cost across the supply chain)

The Objective of a Supply Chain

- Example: Dell receives \$2000 from a customer for a computer (revenue)
- Supply chain incurs costs (information, storage, transportation, component assembly, etc.)
- Difference between \$2000 and the sum of all of these costs is the supply chain profit
- Supply chain profitability is total profit to be shared across all stages of the supply chain
- Supply chain success should be measured by total supply chain profitability, not profit as an individual stage

The Objective of a Supply Chain

- Sources of supply chain revenue: the customer
- Sources of supply chain cost: flows of information, products or funds between stages of the supply chain
- Supply chain management is the management of flows between and among supply chain stages to maximize total supply chain profitability

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Importance of supply chain

- Supply chain design, planning and operation decisions play a significant role in the success or failure of a firm

Decision Categories/Phases of a Supply Chain

- Supply chain decision phases may be categorized as below depending on the time frame during which the decisions made apply
 - Supply chain strategy or design
 - Supply chain planning
 - Supply chain operation

Supply Chain Strategy or Design

- Decisions about the structure of the supply chain and what processes each stage will perform
- Strategic supply chain decisions
 - Where to source raw materials, components or services
 - Locations and capacities of facilities
 - Products to be made or served at various locations
 - Modes of transportation
 - Information systems

Supply Chain Strategy or Design

- Supply chain design must support strategic objectives
- Supply chain design decisions are long-term and expensive to reverse - must take into account market uncertainty

Supply Chain Planning

- For decisions made during the phase the time frame considered is quarter to a year
- Supply chain's configuration determined in the strategic phase is fixed
- This configuration establishes constraints within which planning must be done
- Starts with a forecast of demand in the coming year

Supply Chain Planning

- Planning decisions
 - Which markets to be supplied from which locations
 - Planned buying of inventories
 - Subcontracting
 - Timing and use of flexible production
- Must consider in planning decisions demand uncertainty, changing 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 handle incoming customer orders in the best possible manner

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Supply Chain Operation

- Address issues in inventory or production
- Service decisions
- Transportation lot or container
- Shipment or order in particular shipment
- Inventory decisions
- Place replacement orders

Process Views of a Supply Chain

- A supply chain is a sequence of processes and flows that take place within and between different stages
- There are 2 different ways to view the processes performed in a supply chain
 - Flow view
 - Push/pull view

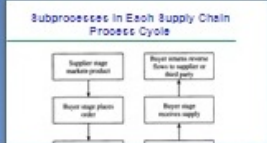
Process View of a Supply Chain

- Cycle view: processes in a supply chain are divided into a series of cycles, each performed at the interface 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



Cycle View of a Supply Chain

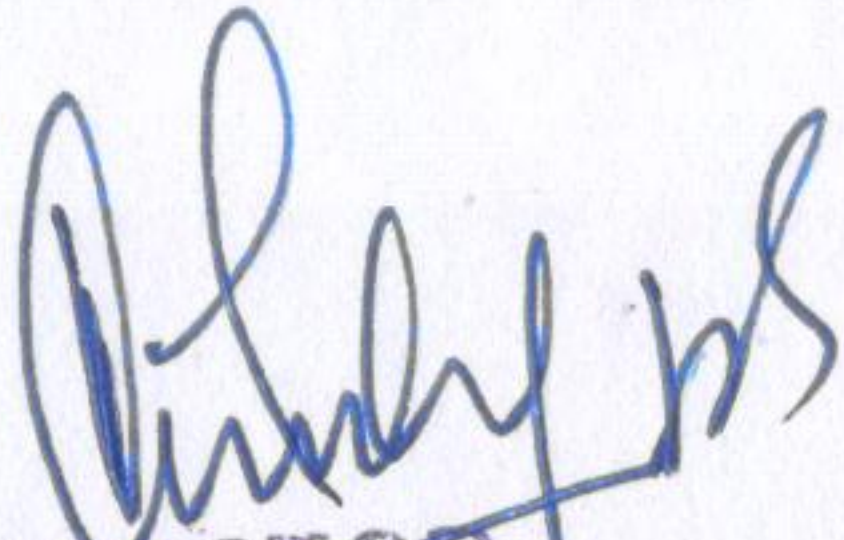
- Each cycle occurs at the interface between two successive stages
- Customer order cycle (customer-retailer)
- Replenishment cycle (retailer-distributor)
- Manufacturing cycle (distributor-manufacturer)
- Procurement cycle (supplier-manufacturer)





Sample recorded video lecture classes/YouTube links/Blogs/Google classrooms

Sl. No.	Name of the Faculty	Subject	Mode of online teaching followed	Place & link to access the lecture content
1	Dr.Prakash H.S	Operations Management	Online and blended mode. Google Meeting and Zoom meeting platform used	https://classroom.google.com/u/0/c/MTUyODU2OTE5OTU5
2	Prof.Prashant Gujanal	Consumer Behavior	Online Live Video Classes using Zoom	https://classroom.google.com/u/1/c/MTU4NTQ1NjIwNjgx
3	Dr.Mahesh Vanjeri	Retailing Management	Live video communications	https://classroom.google.com/c/MTUzMjgxMDU5ODUw
4	Dr.Saleem Sonnekhan	Services Marketing	Online live video on Zoom meeting platform	https://classroom.google.com/u/0/c/NDYzNTY2NzYyNDJa
5	Dr.Prashantha.C	Investment Analysis and Portfolio Management	Online and blended mode using Zoom meeting platform	https://classroom.google.com/u/1/c/MTUzMdAzMzE3MTkx
6	Prof.Bharathi Sunagar	Banking & Financial Services	Online classes through Zoom platform and Google classroom	https://classroom.google.com/u/0/c/MTUyODQ5ODAxNTY0
7	Dr.Saleem Sonnekhan	Mergers, Acquisitions and Corporate Restructuring	Online live video on Zoom meeting platform	https://classroom.google.com/u/0/c/MTUzMjYzNjc4MzM4
8	Prof.Bharathi Sunagar	Recruitment & Selection	Online classes through Zoom platform and google classroom	https://classroom.google.com/u/0/c/MTQzOTM3OTk2MjIw
9	Prof.Prashant Gujanal	Industrial Relations and Legislations	Online Live Video Classes using Zoom	https://classroom.google.com/u/1/c/MTU4NTU5MDU4OTQ5
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