

# Supply Chain

A supply chain is a network of individuals and companies who are involved in creating a product and delivering it to the consumer or end user.

## Understanding a Supply Chain

- A supply chain includes every step that is involved in getting a finished product or service to the customer. The steps may include sourcing raw materials, moving them to production, then transporting the finished products to a distribution center or retail store where they may be delivered to the consumer.
- The entities involved in the supply chain include producers, vendors, warehouses, transportation companies, distribution centers, and retailers.
- The supply chain begins operating when a business receives an order from a customer. Thus, its essential functions include product development, marketing, operations, distribution networks, finance, and customer service.
- When supply chain management is effective, it can lower a company's overall costs and boost its profitability. If one link breaks, it can affect the rest of the chain and can be costly

## Challenges

- **Potential lack of transparency.** Having transparency enables stakeholders to understand the status of the supply chain.
- **Waste due to inadequate production cycle.** Businesses that inaccurately gauge their supply, demand or capabilities may end up with an overstocked inventory.
- **Unsatisfied business partners and customers.** The ultimate goal of SCM is to meet customer expectations. This involves managing those expectations realistically, but also providing a valuable product.
- **Lost or delayed goods.** Goods that go missing at any point in the chain ultimately delay the whole process and can impact customers negatively.
- **Increasing customer expectations.** New technology and businesses raise customer expectations, which can be difficult to manage, and impossible to meet if not properly managed.
- **Resiliency to sudden changes in the supply chain.** External factors can cause unforeseen changes in a supply chain, so best practice is to prepare for the unexpected and be able to pivot if need be.

## Reliable Suppliers Are Key

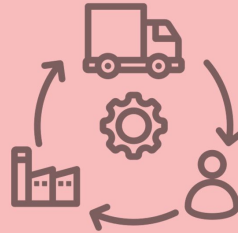
- An efficient supply chain management process requires reliable suppliers. This means they produce a product that meets the manufacturer's specifications and deliver it on time.
- Assume, for example, that XYZ Furniture manufactures high-end furniture, and that a supplier provides metal handles and other attachments. The metal components need to be durable so that they last for many years. They must meet the design and quality specified by the manufacturer, and they must work as intended.
- A reliable supplier will fill the manufacturer's order and ship the parts on time.

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## Supply Chain Models

- **Continuous Flow Model** - works best for mature industries with a degree of stability.
- **Agile Model** - works best for industries with unpredictable demand and products that are made to order.
- **Fast Chain Model** - works best for products with a short lifecycle, such as fashion items.
- **Flexible Model** - works best for industries with a level of stability and a few relatively predictable demand peaks.
- **Custom Configured Model** - focuses on customizing.
- **Efficient Chain Model** - works best for highly competitive markets in which pricing plays a large part



## Five Components of Traditional Supply Chain Management Systems

### Planning

- Plan and manage all resources required to meet customer demand for a company's product or service. When the supply chain is established, determine metrics to measure whether the supply chain is efficient, effective, delivers value to customers and meets company goals.

### Sourcing

- Choose suppliers to provide the goods and services needed to create the product. Then, establish processes to monitor and manage supplier relationships. Key processes include: ordering, receiving, managing inventory and authorizing supplier payments.

### Manufacturing

- Organize the activities required to accept raw materials, manufacture the product, test for quality, package for shipping and schedule for delivery.

### Delivery and Logistics

- Coordinate customer orders, schedule deliveries, dispatch loads, invoice customers and receive payments.

### Returning

- Create a network or process to take back defective, excess or unwanted products.

## Flow of Manufacturing Costs

Efficient supply chain systems get each piece of the product where it is needed, when it is needed. This means controlling the flow of manufacturing costs.



Sources