

All courses are prepared using many books and websites. *“knowledge is found to be shared, but with respecting its sources”*

COURSE 4: Supply Chain Management

Supply chain management (SCM) is the active management of supply chain activities to maximize customer value and achieve a sustainable competitive advantage. It represents a conscious effort by the supply chain firms to develop and run supply chains in the most effective & efficient ways possible. Supply chain activities cover everything from product development, sourcing, production, and logistics, as well as the information systems needed to coordinate these activities.

The concept of Supply Chain Management (SCM) is based on two core ideas:

1. The first is that practically every product that reaches an end user represents the cumulative effort of multiple organizations. These organizations are referred to collectively as the supply chain.
2. The second idea is that while supply chains have existed for a long time, most organizations have only paid attention to what was happening within their “four walls.” Few businesses understood, much less managed, the entire chain of activities that ultimately delivered products to the final customer. The result was disjointed and often ineffective supply chains.

The organizations that make up the supply chain are “linked” together through physical flows and information flows.

&- Physical Flows

Physical flows involve the transformation, movement, and storage of goods and materials. They are the most visible piece of the supply chain. But just as important are information flows.

&- Information Flows

Information flows allow the various supply chain partners to coordinate their long-term plans, and to control the day-to-day flow of goods and materials up and down the supply chain.

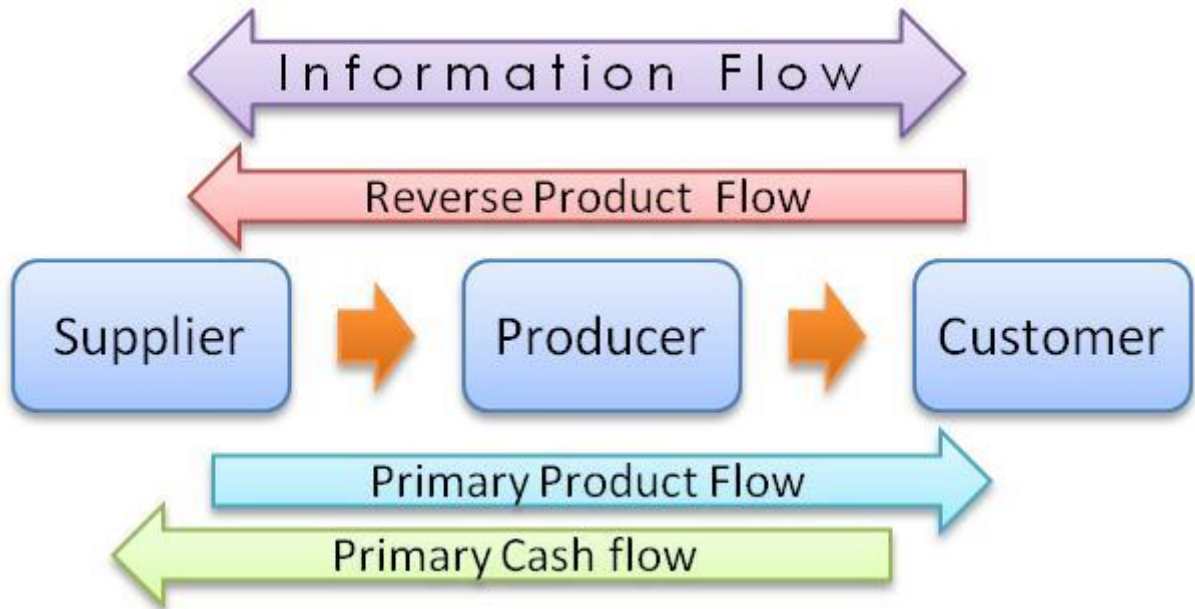
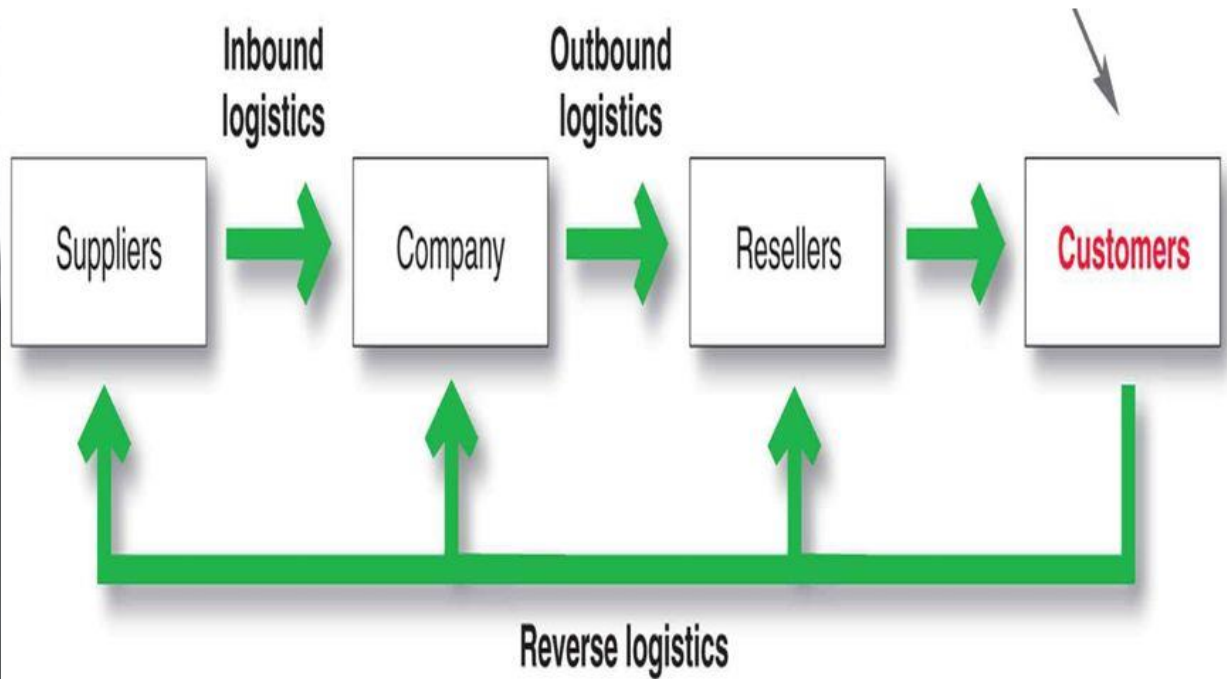
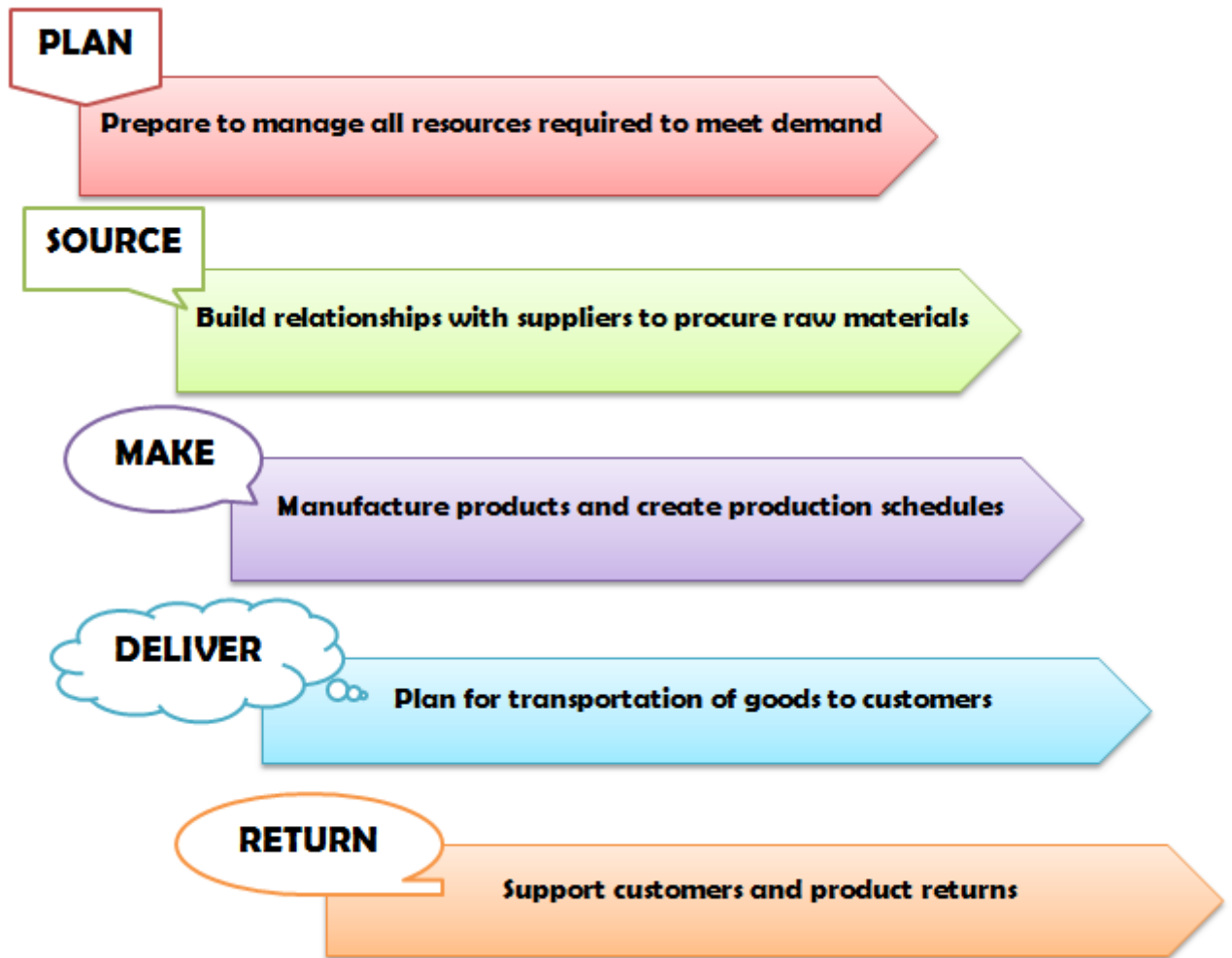


Figure 10.5: Supply Chain Management





Basics of Supply Chain

- **Plan** – This is the strategic portion of supply chain management. A company must have a **plan** for managing all the resources that go toward meeting **customer demand** for products or services. A big piece of planning is developing a **set of metrics to monitor** the supply chain so that it is efficient, costs less, and delivers high quality and value to customers.
- **Source** – Companies must carefully choose reliable **suppliers** that will deliver goods and services required for making products. Companies must also develop a set of **pricing, delivery, and payment processes** with suppliers and create **metrics** for monitoring and improving the relationships.
- **Make** – This is the step where companies **manufacture** their products or services. This can include **scheduling** the activities necessary for **production, testing, packaging, and preparing for delivery**. This is by far the most **metric-intensive** portion of the supply chain, measuring quality levels, production output, and worker productivity.
- **Deliver** – This step is commonly referred to as logistics. **Logistics** is the set of processes that plans for and controls the efficient and **effective transportation and storage** of supplies from suppliers to customers. During this step, companies must be able **to receive orders from customers, fulfill the orders via a network of warehouses, pick transportation companies to deliver the products, and implement a billing and invoicing system to facilitate payments**.
- **Return** – This is typically the most problematic step in the supply chain. Companies must create a network for receiving **defective and excess products and support customers** who have problems with delivered products.

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To understand what is supply chain management? we have simplified the concept including in the above figures. It might be made up of these organizations:

- *A supplier, a provider of goods or services or a seller with whom the buyer does business, as opposed to a vendor, which is a generic term referring to all sellers in the marketplace. The supplier provides materials, energy, services, or components for use in producing a product or service. These could include items as diverse as sugar cane, fruit, industrial metals, roofing nails, electric wiring, fabric, computer chips, aircraft turbines, natural gas, electrical power, or transportation services.*
- *A producer that receives services, materials, supplies, energy, and components to use in creating finished products, such as dress shirts, packaged dinners, air-planes, electric power, legal counsel, or guided tours. (Note that supply chain management for services may be more abstract than those for manufacturing).*

- *A customer that receives shipments of finished products to deliver to its customers, who wear the shirts, eat the packaged dinners, fly the planes, or turn on the lights.*