

## Chapter 1 Discussion Questions

1. What is supply chain management? Will a supply chain always look like a chain?

Supply chain management is the management of activities from raw materials to final product delivery to customers. The supply chain includes a number of different members, including but not limited to suppliers (and manufacturers), transporters, warehouses, retailers, and customers. A supply chain will look like a chain if a single agent is involved at each stage. However, in most cases, there are multiple suppliers at each stage and the supply chain becomes a network and may even look like a supply web instead of a chain.

2. Should the members of a supply chain maximize individual profits in order to raise the overall supply chain surplus?

Supply chain surplus = Customer Value – Supply Chain Cost.

Supply chain surplus will be shared across all supply chain members; however, focusing on individual profitability may lead to reduction in overall supply chain surplus. Hence, members should work together to maximize overall supply chain surplus.

3. What are some strategic planning and operational decisions that must be made by an apparel retailer like The Gap?

As The Gap plans supply chain strategy it must first consider the marketing function's pricing plans in order to structure a supply chain consistent with these plans. Strategic considerations such as the capacity of each supplier and assembly operations, sourcing decisions and how logistics are to be handled are all part of the design. The supply chain must also settle on communication channels and frequencies.

Supply chain planning takes the strategic decisions as a given and seeks to exploit efficiencies in the chain to maximize supply chain surplus. The entire chain should collaborate in forecasting and planning production to achieve a global optimum. The forecasts should take into account planned promotions and known seasonal fluctuations in demand.

The operational decision takes the plans as a given and makes day-to-day decisions to process customer orders, allocate resources to certain customers, trigger orders from supply chain members, and deliver product.

4. Consider the supply chain involved when a customer purchases a book at a bookstore. Identify cycles in this supply chain and the location of the push/pull boundary.

All supply chain processes can be broken down into four process cycles that connect the five stages of the supply chain: the customer order cycle, the replenishment cycle, the manufacturing cycle, and the procurement cycle. The customer order cycle connects the customer with the retailer; this connection is made as the book, perhaps *Supply Chain Management* by Chopra and Meindl, is selected and paid for by the customer.

The replenishment cycle connects the retailer and the distributor and is triggered by the retailer's need to fill the empty shelf space with another copy of this tome. The manufacturing cycle connects the distributor and the manufacturer. As demand for the book is realized and distributors empty their warehouses, they signal the manufacturer to print another million copies to fill their empty warehouses.

Finally, the procurement cycle connects the manufacturer and the supplier. The manufacturer requires raw material inputs of paper, ink, etc., to begin the assembly process for another batch of *Supply Chain Management*.

The push/pull boundary exists where demand switches from reactive (pull) to speculative (push) production. For most bookstore supply chains the push/pull boundary is between the customer order cycle and the replenishment cycle. The customer order pulls the book from the bookstore shelf but the initial production of the book was triggered by a build order that moved materials along the supply chain to the retail outlet.

5. Consider the supply chain involved when a customer orders a book from Amazon. Identify the push/pull boundary and two processes each in the push and pull phases.

In Amazon's original operations design the push/pull boundary existed betwixt the retailer (Amazon) and their distributor. Amazon ordered product from the distributor and the customer order arrived. Today, Amazon has six warehouses where it stocks an inventory of items it is confident that will sell. In this scenario, the push/pull boundary exists between the customer and the retailer.

Processes in the pull phase are the order fulfillment, shipping, customer returns, and customer billing. Processes in the push phase are production, stock replenishments, shipping, and payment.

6. In what way do supply chain flows affect the success or failure of a firm like Amazon? List two supply chain decisions that have a significant impact on supply chain profitability.

The success or failure of a company like Amazon is decided by the effective function of its supply chain. The flow of products from publishers to distributors to customers must be rapid and reliable in order to satisfy customers. The flow of information back through the supply chain allows all members to coordinate

efforts. The flow of money allows all supply chain members to maintain operations. Supply chain profitability is influenced by sourcing, promotion, and fulfillment decisions.