1. Explain the 3 decision phases (categories) that must be made in a successful supply chain

Topic: 1.4 Decision Phases in a Supply Chain

Model answer: The 3 decision phases that occur within a supply chain are supply chain strategy (or design), supply chain planning and supply chain operation. Decisions relate to the flow of information, product and funds. The difference between categories depends upon the frequency of each decision and the time frame over which it has an impact. During the supply chain strategy phase, a company determines what the chain's configurations will be, how resources will be allocated, and what processes each stage will perform. This will establish the structure of the supply chain for several years. Supply chain planning deals with decisions with a time frame from 3 months up to a year. The planning phase must work within the constraints established in the strategy phase. Planning decisions include which markets to supply from which locations, subcontracting of manufacturing, inventory policies and timing and size of marketing promotions. The supply chain operation phase operates on a weekly or daily time horizon and deals with decisions concerning individual customer orders.

2. Explain the three macro processes within a supply chain

Topic: 1.5 Process Views of a Supply Chain

Model answer: All processes within a supply chain can be classified into three macro processes which are Customer Relationship Management (CRM), Internal Supply Chain Management (ISCM), and Supplier Relationship Management (SRM). Customer Relationship Management (CRM) includes all processes that focus on the interface between the firm and its customers such as marketing, sales, call center management and order management. Internal Supply Chain Management (ISCM) includes all processes that are internal to the firm such as finalization of demand and supply plans, preparation of inventory management policies, order fulfillment and planning of capacity. Supplier Relationship Management (SRM) includes all processes that focus on the interface between a firm and its suppliers such as evaluation and selection of suppliers, negotiation of supply terms and communication regarding new products and orders.

3. Discuss the differences of push and pull supply chain processes

Topic: 1.5 Process Views of a Supply Chain

Model answer: Processes in a supply chain fall into one of two categories depending on the timing of their execution relative to end customer demand. With pull processes, execution is initiated in response to a customer order. With push processes, execution is initiated in anticipation of customer orders based on a forecast. Pull processes may also be referred to as *reactive processes* because they react to customer demand. Push processes may also be referred to as *speculative processes* because they respond to speculated (or forecasted) rather than actual demand. The *push/pull boundary* in a supply chain separates push processes from pull processes. Push processes operate in an uncertain environment because customer demand is not yet known. Pull processes operate in an environment in which customer demand is known. They are, however, often constrained by inventory and capacity decisions that were made in the push phase.

4. Describe the cycle view of the processes within a supply chain

Topic: 1.5 Process Views of a Supply Chain

Model answer: The cycle view divides the supply chain into a series of 4 cycles between the 5 different stages of a supply chain. The cycles are the customer order cycle, replenishment cycle, manufacturing cycle and procurement cycle. The customer order cycle

occurs at the customer/retailer interface and includes all processes directly involved in receiving and filling the customer. The replenishment cycle occurs at the retailer/distributor interface and includes all processes involved in replenishing retailer inventory. The manufacturing cycle typically occurs at the distributor/manufacturer (or retailer/manufacturer) interface and includes all processes involved in replenishing distributor (or retailer) inventory. The procurement cycle occurs at the manufacturer/supplier interface and includes all processes necessary to ensure that the materials are available for manufacturing according to schedule.

5. Explain why supply chain flows are important

Topic: 1.3 The Importance of Supply Chain Decisions

Model answer: Supply chain flows are important, because there is a close connection between the design and management of supply chain flows (product, information, and cash) and the success of a supply chain. The success of many companies can be directly traced to the design and management of an appropriate supply chain. The failure of many businesses can be linked directly to their inability to effectively design and manage supply chain flows.

6) Define supply chain surplus

Give a comprehensive definition of supply chain surplus (or the value a supply chain generates)!!!

I humbly ask you to do all the exercises!! Next weekly exercise follow.