

Supply Chain Management

Education Issues

Major themes expressed by industry professionals:

- Supply chains have become one of the central elements in many companies' overall competitive strategies.
- Aggregation strategies designed to facilitate supply chain synergies have become one of the foremost drivers of M&A transactions
- Strategic effects of offshore outsourcing on lead-times and customer service are being studied closely
- Increasingly stringent customer service requirements are one of the main drivers necessitating network re-designs
- Several companies are merging their manufacturing and distribution facilities in order to position inventories closer to their customers
- Supply chains are becoming more externally focused, with companies teaming up and collaborating with their supply chain partners.
- Visibility across the entire supply chain is critical and newer and better software applications are being sought

Challenges:

Despite globalization, most supply chain optimization is done locally

Supply chains are not fully equipped to support accelerating innovation

Flexibility is becoming more difficult to achieve in the face of shorter product cycles, the pursuits of lower-cost locations and the race to new markets;

Managing risk is a concern especially fragmented supply chain initiatives are increasing potential risk

While customer service is a priority, fewer than 8% of companies have a high level of collaboration with customers on key initiatives.

Basic components of SCM

- **Plan** - determining what resources, information, products, and/or services are needed to support the supply chain
- **Source** - involves creating relationships between the supplier and the manufacturer
- **Make** - the manufacturing process
- **Deliver** – involves coordinating the receipts of orders from customers and setting up an invoicing system to receive payments
- **Return** – creating a network for receiving defective and excess products back from consumers

Source: nonprofit Supply-Chain Council's Supply-Chain Operations Reference (SCOR) model

Typical objectives of a supply chain graduate program

To develop,

an appreciation of the strategic value of Supply Chain Management and the functional impacts on supply chain success

an understanding of the elements of design critical to position the supply chain to achieve competitive advantage

the capability to identify supply chain cost and revenue drivers, and design customer fulfillment strategies to optimize financial performance

the contribution of strategic sourcing to the competitive advantage of the firm, and requirements for achieving strategic advantage through supply management

to examine the importance of cross-functional integration and inter-firm relationships in achieving competitive advantage through supply chain activities and processes

an understanding of the role of information technology and data management in effective supply chain management

an understanding of the impact of globalization on supply chain management

and identify current trends and best practices in Supply Chain Management:

- Issue categories
 - Location
 - Transportation and Logistics
 - Inventory and Forecasting
 - Marketing and channel restructuring
 - Sourcing and supplier management
 - Information and electronic mediated environments
 - Product design and new product introduction
 - Service and after sales support
 - Reverse logistics and green issues
 - Outsourcing and strategic alliances
 - Metrics and incentives
 - Global issue

Role of Revenue Management

- Revenue Management is the use of pricing lever to better match supply and demand with the objective of maximizing total margin earned from a limited supply of supply chain assets
- Supply Chain Assets:
 - Capacity (production, transportation, storage)
 - Inventory (throughout the supply chain)
- It is the use of targeted differential pricing based on
 - customer segment,
 - time of use,
 - product availability and
 - capacity availability, to maximize net revenues

Teaching approach:

Look at the complementary roles of supply chain and marketing/pricing models in supporting decisions for net revenue maximization in the firm

Development of models for holistic supply chain network optimization; scenario planning

Familiar with software for supply chain network optimization, forecasting, and marketing

Case study method and scenario building supplemented by business press, guest lecturers

Integrated SCM approach

- Value creation flows (new product/process/service development activities)
- Value delivery flows (order fulfillment flows of materials, products and services through sourcing, production/operations and distribution to end customers)
- Information and demand flows that provide control and coordination
- Value optimization flows (end item pricing and availability)