Introduction to Purchasing and Supply Chain Management

Chapter 1
World Class Supply Management

• The World Class Supply philosophy reflects those actions and values responsible for the continuous improvement of the design, development, and management process of an organization’s supply system, with the objective of improving its profitability and ensuring its survival, as well as the profitability and survival of its customers and suppliers.
World Class Supply Management

• Purchasing has evolved from mere “buying” to an integrated function called “Supply Management”.

• Its most recent predecessor is Materials Management.
World Class Supply Management

Materials Management encompasses

• Inventory Control: “how many” parts, pieces, pounds of materials, etc.

• Production Control: “when” including shop floor control-scheduling along with the materials handling, storage, and movements necessary to reach work assembly stations.

• Stores, or “work station storage and supporting or indirect materials”.

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World Class Supply Management

- Sub contracting: or “what systems do we buy?”
- Purchasing – Procurement: or “buying”
- Transportation: or “incoming and finished goods freight movement.”
- Salvage: or “disposing of surplus and scrap.”

** The advent of materials management and computer tools that came with it as Materials Requirement Planning (MRP) and Materials Resources Planning (MRP II) forced the organization for the first time to look at the entire flow of materials as an integrated system.
What are Purchasing and Supply Management?

• Purchasing is a functional group/activity that supplies the organization with materials. It is often referred to as procurement.

• Supply Management is a progressive approach to managing supply base and the supply chain.
World Class Supply Management

• The philosophy of World Class requires changes driven by upper management to shift decision-making processes from an internal department (MM) or single company focus toward optimization of the supply chain through continuous improvement.
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Supply Management consists of four principle Phases:
1) The generation of the requirements
2) Sourcing
3) Pricing
4) Post-award activities

The generation of requirements is the most crucial phase. 85% of the cost of materials is set at this stage.
World Class Supply Management

World Class Supply Management must focus on the following 10 strategic activities:

• Monitoring the firm’s supply environment.
• Developing & managing the firm’s supply strategy as an integrated whole.
• Developing and updating sound commodity supply strategies.
• Collaborating with the organization’s IT function to develop data management system which facilitates strategic supply planning.
World Class Supply Management

• Joining marketing and operations as the key players developing the corporation’s strategic plans.
• Identifying the advantages of specific potential supply alliances and then developing and managing them.
• Developing and managing the firm’s supply chains or supply networks.
• Developing and implementing programs which protect the environment, includes woman-owned and small business and which promote values in the work place.
• Studying and understanding the industries which provides key materials, equipment, and service; their cost structures, technologies, competitive nature, and their culture.
What is a Supply Chain?

• A Supply Chain is three or more organizations linked directly by one or more upstream or downstream flows of products, services, finances, and information from a source to a customer.

• The Supply Chain is a subset of the Value Chain.
Supply Chains

• Simple supply chains pull materials directly from their origin, process them, package them, and ship them to consumers.
Supply Chains Illustrated
Supply Chains Illustrated
Relationships within the Supply Chain

- Organizations are forming partnership and alliances with others in the supply chain. These require a shared resource base so the entire chain can benefit as a whole.
The Supply Chain Umbrella

• Supply Chain activities include:
  – Purchasing
  – Inbound Transportation
  – Quality control
  – Demand and Supply Planning
  – Receiving, Materials Handling, and Storage
  – Material or Inventory Control
The Supply Chain Umbrella

• Supply Chain activities include:
  – Order Processing
  – Production Planning, Scheduling, and Control
  – Warehousing/Distribution
  – Shipping
  – Outbound Transportation
  – Customer Service
Four Pillars of Purchasing and Supply Chain Management

I. Business Requirements and Guiding Philosophies
- Total quality management
- Supply chain integration
- Total cost management
- Globalization
- Flexibility and responsiveness
- Reduced cycle times

II. Enabling capabilities support the development of strategies and approaches
- Human Resources
  - Supply chain professionals who have the ability to:
    - View the supply chain holistically
    - Manage critical relationships
    - Understand the business model
    - Engage in fact-based decision making
    - Practice advanced cost management
    - Understand electronic business systems

- Organizational Design
  - Organizational designs that feature:
    - Centrally led supply teams
    - Executive responsibility for coordinating purchasing and supply chain activities
    - Collocation of supply personnel with internal customers
    - Cross-functional teams to manage supply chain processes
    - Supply strategy coordination and review sessions between business units
    - Executive buyer-supplier council to coordinate with suppliers

III. Proactive Purchasing and Supply Chain Management Strategies and Approaches
- Global sourcing, Supplier quality management, Long-term contracting, Early supplier design involvement, Joint improvement activities, Outsourcing, Alliances and partnerships, On-site supplier-managed inventory

IV. Information Technology
- Real time and shared information technology systems/Supply chain planning and execution systems that support:
  - Demand planning
  - Order commitment, scheduling, and production management
  - Distribution and transportation planning
  - Material replenishment
  - Reverse auctions
  - Electronic data interchange

V. Measurement
- Include supply chain measures that:
  - Use data from visible sources
  - Quantify what creates value
  - Use goals that change over time
  - Rely on benchmarking to establish performance targets
  - Link to business goals and objectives
  - Feature efficiency and effectiveness measures
  - Assign ownership and accountability
The Supply Chain Umbrella

- Encompasses activities that are part of a network supporting efficient and effective flow of goods and information across the supply chain.

- Organizations recognize value of aligning, coordinating, integrating and synchronizing these activities.
What is a Value Chain?

• A value chain is a sequence of business functions in which utility (usefulness) is added to products or services as they move from supplier to end customer.

• Value chains are often viewed like a river---upstream and downstream.
THE VALUE CHAIN OF THE FIRM

SUPPORT ACTIVITIES
- Firm Infrastructure
- Human Resource Management
- Technology Development
- Procurement

Primary Activities
- Materials / Supply Management
- Physical Distribution / Channel Management
- Value Chain / Total Supply Chain – Logistics Management

Industry Forces
- Bargaining Power of Suppliers
- Bargaining Power of Buyers
- Threat of New Entrants
- Threat of Substitutes
- Rivalry Among Existing Firms

Macro Forces
- Economic / Financial
- Legal / Regulatory
- Labor Markets
- Social
- Global
What is Value Chain Integration?

- Value chain integration involves bringing together different groups, functions, or organizations, either formally or informally, physically or by information technology, to work jointly and often concurrently on a common business-related assignment purpose.
Horizontal Integration Across the Value Chain

• Examples of how firms integrate across the value chain--

  – Committees/groups/teams
  – Shared and linked information systems
  – Integrated performance goals/objectives/measures
  – Strategy development process
Horizontal Integration Across the Value Chain

- Examples of how firms integrate across the value chain—
  - Co-location of personnel within and between the organization
  - Through a process orientation
  - Informal or ad hoc exchange of information
  - Shared risk and reward projects