

# Supply Network Design [L6M9]

**Target Audience:** For those who are successful in completing the CIPS Level 5 Advanced Diploma in Procurement and Supply; this represents the final level of CIPS qualifications for those working towards MCIPS Chartered Procurement and Supply Professional.

**Hours:** 60 Hours

**Pre-requisite:** You will need to have achieved the CIPS Level 4 Diploma in Procurement and Supply.

## 1.0 Understand the strategic nature and influence of

### supply network design

1.1 Assess the meaning of supply network design and the influence that it has on the organisation

- What is supply network design
- Supply network terminology and structures
- Supply network vs. supply chain
- Where are operations located in the supply network
  - logistical impact
- What influence does capacity and resources have on the supply network
- Value adding and competitive advantage

1.2 Evaluate how a strategic supply chain network should be configured

- Influence of the internet – ‘disintermediation’
- The value net and four players - suppliers, customers, competitors and complementors
- Decisions such as:
  - Make or buy
  - Insource or outsource
  - Vertical integration
  - Outsourcing and offshoring

1.3 Assess the influence of capacity on strategic supply chain design

- Optimum capacity
- Large vs. small capacity – advantages and disadvantages
- The timing of capacity change
- Capacity increments:
- Capacity leading and lagging strategies
- Inventory ‘smoothing’
- Break even analysis for capacity expansion

## 2.0 Understand operations strategy and its contribution to overall business success

### 2.1 Assess the meaning of operations strategy and the impact that it has on the organisation

- What is operations strategy
- How to identify if an organisation has an operations strategy
- Is the operations strategy relevant and aligned to the overall business strategy
- Does the operations strategy align with market requirements and available resources
- The contribution of operations strategy to competitive advantage and added value

### 2.2 Evaluate the key elements of an operations strategy

- Should include key elements such as:
- A clear vision and objectives
- The 4 stages model of operations – internal neutrality, external neutrality, internally supportive and externally supportive
- Performance objectives – quality, speed, dependability, flexibility and cost
- Reconcile strategic decisions to objectives

- capacity and resources vs. timescales and outputs

### 2.3 Assess the role of improvement in operations strategy

- Continuous improvement
- Drivers for effectiveness and efficiency
- Improving operations through trade-offs between performance objectives
- Trade-offs and the efficient frontier
- Improving operational effectiveness by overcoming trade-offs

## 3.0 Assess the strategic value of resource planning and

### control

#### 3.1 Evaluate the concept of strategic resource planning and control

- What is resource planning and control
- Influences on resource planning such as:
  - Translating customer need into operational delivery
  - Customer expectation and management
  - Forecasting, capacity, resources, priorities, scheduling, monitoring, control
- Information and data gathering and management

#### 3.2 Assess the key elements of a resource strategic planning and control system

- Core mechanics of the process such as:
  - Loading
  - Prioritisation and sequencing
  - Scheduling
  - Monitoring and control
- Decision mechanism:
  - Planning and control staff
  - Planning and control information system

- Customer interface
- Supply interface
- Other business functions

### 3.3 Contrast methods of monitoring and controlling the strategic operation

- Degree of difficulty in controlling operations
- Consider methods of control such as:
  - Push and pull
  - Theory of constraints (TOC) and drum (bottleneck), buffer stock and rope
- MRP and MRP II
- Web-integrated and supply network ERP