



PD02

Supply Chain Management Standards

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Supply Chain Management

Unit purpose and aim

The aim of this unit is to introduce the main principles, concepts and practices of supply chain management. The content of the module covers four main themes. These are: what is a supply chain and supply chain planning, why it is important in any business, how the supply chain operates and the principles for supply chain improvement. Where appropriate, the global nature of the supply chain will be emphasised.

Elements

- PD02-1 The Supply Chain
- PD02-2 Supply Chain Planning
- PD02-3 Supply Chain Operations
- PD02-4 Supply Chain Improvement

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Element PD02-1

The Supply Chain

Learning Outcomes

The learner will:

1.1. Understand the concept of the supply chain, its main components and how it may vary in different organisations.

1.2. Understand the importance of integrating and harmonising physical and information flows within a supply chain.

1.3. Understand how an organisation can manage and control its supply chain to gain competitive advantage.

1.4. Know why supply chains may not always function effectively.

Assessment Criteria

The learner can:

1.1.1. Describe and illustrate the structure of an organisation's supply chain.

1.1.2. Critically compare one organisation's supply chain with that of others.

1.2.1 Analyse the physical and information flows within a supply chain and effect improvements in integration and harmonisation.

1.3.1. Assess the strengths and weaknesses of an organisation's supply chain.

1.3.2. Assess the ability of a supply chain to provide competitive advantage.

1.4.1. Evaluate the barriers to the effective working of a supply chain.

1.4.2. Develop solutions to improve supply chain effectiveness.

Indicative Content

Supply Chains	Structure of supply chains, supply chain management, critical linkages, procurement, supply chain management in manufacturing, distribution.
Physical and information flows	Material flow pipeline, information flow, management control and the flow of money.
Management and control of the supply chain to gain competitive and/or cost advantages	Supply Chain management as the basis for competitive advantage, value chains, key challenges, the 'customer service explosion', time compression, supply chain integration, the globalisation of industry, changes in supply chain management.
Why supply chains may not always function in an effective way	Demand amplification, communication problems.

Element PD02-2

Supply Chain Planning

Learning Outcomes

The learner will:

- 2.1. Understand how to plan a supply chain from a strategic and operational standpoint.
- 2.2. Understand the relationship between supply chain planning and customer service levels.
- 2.3. Understand the role of inventory in the supply chain.
- 2.4. Understand the importance of effective inventory control within the supply chain.
- 2.5. Understand alternative supply chain strategies, their characteristics and constraints.
- 2.6. Understand new and developing supply chain strategies.

Assessment Criteria

The learner can:

- 2.1.1. Develop a supply chain plan that will meet the organisation's objectives.
- 2.2.1. Develop operational supply chain plans that will meet customer service requirements.
- 2.3.1. Implement an effective process of demand management.
- 2.4.1. Implement an effective process of inventory control that will meet the required outcomes of both the organisation and its customers.
- 2.5.1. Critically examine available alternative supply chain strategies with a view towards integrating them into an existing supply chain.
- 2.6.1. Critically examine current supply chain strategies and options aimed at enabling supply chain integration.

Indicative Content

Supply chain planning	Strategic: planning decisions; segments; alternatives. Operational: networks; modelling.
Inventory and inventory management	Demand planning, inventory management: quick response models; vendor-managed inventory; co-managed inventory; collaborative planning, forecasting & replenishment (CPFR).
Supply chain alternatives	Postponement, consolidation, partnerships, outsourcing; Logistics Service Providers (LSPs), supply chain conflicts.
Supply chain developments	Efficient Consumer Response (ECR), supply chain integration, JIT, RFID

Element PD02-3

Supply Chain Operations

Learning Outcomes

The learner will:

- 3.1. Know how to identify and cost the separate activities within a supply chain.
- 3.2. Understand the role and types of performance indicators in supply chain management.
- 3.3. Understand why an effective supply chain can operate as part of the marketing mix of an organisation.
- 3.4. Understand how and why supply chains respond to customer needs.
- 3.5. Understand the nature and purpose of benchmarking.

Assessment Criteria

The learner can:

- 3.1.1. Analyse the separate activities within a supply chain.
- 3.1.2. Cost individual activities within a supply chain.
- 3.2.1. Demonstrate how to manage a process of performance measurement and effect improvements.
- 3.3.1. Measure a supply chain's cost effectiveness and its contribution to profit.
- 3.4.1. Analyse customer needs and effect supply chain improvements to meet customer requirements.
- 3.5.1. Demonstrate how to manage a process of benchmarking and effect improvements.

Indicative Content

Costing activities within a supply chain	Appropriate supply chain activities, traditional costing and asset deployment models, budgeting using standard times.
Performance indicators	Traditional performance models, cross-functional performance models.
The supply chain as part of the marketing mix	Activity Based Costing (ABC), Direct Product Profitability, Economic Value Added (EVA)
The nature and use of benchmarking	Benchmarking, process management.

Element PD02-4

Supply Chain Improvement

Learning Outcomes

The learner will:

4.1. Know how supply chain performance can be enhanced towards lean and agile systems.

4.2. Understand the different approaches to performance improvement.

4.3. Understand the role of information processing in supply chain improvement.

Assessment Criteria

The learner can:

4.1.1. Conduct and evaluate a supply chain audit.

4.2.1. Select and employ suitable approaches to improve supply chain performance.

4.2.2. Determine an optimum supply chain solution.

4.2.3. Develop a suitable implementation plan.

4.3.1. Critically analyse information system structures.

Indicative Content

Supply Chain performance enhancement

Supply Chain audits, Supply Chain improvement models, models for lean and agile chains, improvements towards agility, e-business, RFID, integrated improvement strategies.

Approaches to performance improvement

The Seven Wastes, Supply chain mapping, Scott & Westbrook, the seven mapping tools, Six-Sigma model

Information processing systems

Improvements towards agility, integrated improvement strategies, value chains, information system infrastructures.