

# Unit BR4: Supply Chain Management

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| Unit code:    | D/503/7270 |
| QCF level:    | 6          |
| Credit value: | 15         |

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## Aim

This unit aims to give the learner an understanding of why supply chains are important to organisations for gaining sustainable competitive advantage and success and the skills to apply strategic supply chain management issues and to assess the impact of technology on supply chains.

## Unit abstract

The unit provides a comprehensive review of the constantly developing and changing area of supply chain management. The unit focuses on the fact that supply is a dynamic strategic process and not an administrative function. The unit begins by considering how the function and profile of supply chain management (SCM) within organisations has changed significantly.

Different types of sourcing strategies are reviewed, as well as how organisations strategically select suppliers. The unit then introduces the strategic supply wheel model which was developed to explain the main principles and concepts of supply management. At the centre of the model is the development of supply policy and strategy. The model allows organisations to identify if supply and corporate strategies are aligned and helps determine the competencies and skills required for successful strategic supply.

Building on the above, the unit examines how performance is measured in supply strategy, including associated costs as well as discussing how inter-business relationships are managed. The strategic issues involved in supply chain management are reviewed, these include environmental issues, the importance of supplier involvement in new product development and the special nature of public procurement. The unit then examines the important impact of technology on supply chain management.

## **Learning outcomes**

### **On successful completion of this unit a learner will:**

- 1 understand the key supply decisions that have to be made in businesses
- 2 understand the role of performance management in developing supply strategy
- 3 understand the role of performance management in developing supply strategy
- 4 be able to apply strategic issues in supply chain management
- 5 be able to assess the impact of technology on supply chain management.

## Unit content

### 1 Understand the key supply decisions that have to be made in businesses

*Sourcing strategies:* Kraljic's product and service positioning; Porter's five forces; impact on business; supply structure and design

*Supplier selection:* four stages of supplier selection

### 2 Understand how businesses develop supply strategy

*The strategic wheel:* three basic approaches to strategic supply; interrelationships between each of the strategic elements of an organisation

*Supply and corporate strategies:* supply chain strategy supports and facilitates corporate strategy; information sharing; translation of competitive priorities into supply function objectives; translating supply function objectives into supply chain practices

### 3 Understand the role of performance management in developing supply strategy

*Performance measurement:* methods

*The measurement of costs:* cost benefit analysis; price versus cost; total cost of ownership; purchasing activities contributing to total cost of ownership; management of purchasing function; delivery administration; service costs; communication costs; price negotiations; quality costs

*Inter-business relationships management:* development of supply chain and relationship management; Strategic Relationship Positioning Model (SRPM)

### 4 Be able to apply strategic issues in supply chain management

*Environmental issues:* from outside and inside a business's internal and external sources

*Suppliers and new product development (NPD):* current issues; competitive advantage; costs; increasing product complexity; reduced product life cycles; managing technological change; resources and knowledge required to innovate; benefits of involvement

*Public procurement:* public scrutiny of sourcing decisions; no competitive markets in which to operate; regulation; EU procurement objectives

### 5 Be able to assess the impact of technology on supply chain management

*Information technology and communication:* electronic data interchange (EDI); development of Open Systems Integration (OSI); internet technologies

*Electronic exchanges:* marketplace in which goods and services are traded – global, connecting buyers and sellers, auctions, VPNs, one to many, many to many, web marketplace, vortices, butterfly hubs; advantages

## Learning outcomes and assessment criteria

| <b>Learning outcomes</b><br>On successful completion of this unit a learner will: | <b>Assessment criteria for pass</b><br>The learner can:  |
|---|--|
| LO1 Understand the key supply decisions that have to be made in businesses        | 1.1 Analyse sourcing strategies that are used by businesses<br>1.2 Critically evaluate how businesses strategically select suppliers   |
| LO2 Understand how businesses develop supply strategy                             | 2.1 Assess the importance of the strategic wheel in developing supply strategy<br>2.2 Analyse how supply strategies are aligned to corporate/organisational strategies   |
| LO3 Understand the role of performance management in developing supply strategy   | 3.1 Compare the different types of performance measurement used in developing supply strategy<br>3.2 Assess the measurement of costs in developing supply strategy<br>3.3 Review how inter-business relationships are managed  |
| LO4 Be able to apply strategic issues in supply chain management                  | 4.1 Examine the environmental issues in supply chain management which affect a given business<br>4.2 Analyse the benefits of involving suppliers in new product development in a given business<br>4.3 Assess the special nature of public procurement in a given business |
| LO5 Be able to assess the impact of technology on supply chain management         | 5.1 Analyse how information technology improves communication between supply chain partners<br>5.2 Critically evaluate the advantages of different forms of electronic exchanges in supply chain management in a given business  |

## Guidance

### Links to National Occupational Standards

The learning outcomes associated with this unit are closely linked with the National Occupational Standards for Management and Leadership:

- A1 Manage your own resources
- B2 Map the environment in which your organisation operates
- B10 Manage risk
- C5 Plan change
- E8 Manage physical resources
- E10 Take effective decisions
- E11 Communicate information and knowledge
- F12 Improve organisational performance
- E15 Procure supplies
- E16 Select suppliers through a tendering process
- E17 Outsource business processes

The content of this unit has also been mapped against the Engineering Council's current Learning Outcomes for IEng Accreditation. The completion of the learning outcomes for this unit will contribute knowledge, understanding and skills towards the evidence requirements for IEng Registration.

See *Annexe B* for summary of mapping information for IEng Accreditation.

### Essential requirements

There are no special resources needed for this unit.

### Delivery

For learning outcome 1, learners need to understand the key decisions that have to be made by supply chain managers which have a bearing on whether the organisation will be successful. The most important decision for any organisation is whether to make or buy what they need. Having decided that they may need to purchase, strategies need to be produced to identify where products can be sourced. Learners can be given case studies and asked to apply some of the tools and techniques which assist sourcing strategy decision making eg Porter's five forces. Finally, learners need to consider the important aspect of supplier selection and the multitude of tests that can be applied to ensure the selection is correct.

For learning outcome 2, learners need to understand how organisations develop supply strategy. They should apply the strategic wheel to case study material to identify the strategic relationships between each of the strategic elements within an organisation. Building on this knowledge learners should be able to recognise the link between supply chain management and the corporate strategies that exist. Again, case studies and group work can help learners to

understand these important links. Learners also need to appreciate that in developing a supply strategy the organisation needs to have appropriate competencies and skills within the organisation to enable supply chain objectives to be met.

For learning outcome 3, learners need to understand that in any strategic supply chain initiative must be performance measured using criteria such as costs, quality and supplier performance. Case studies and class discussions can help learners to gain an appreciation of the necessity of performance management, including the various methods of cost measurement. Finally, learners need to understand the importance of the management of inter-firm relationships in the development of supply strategy. A guest speaker from a business with well-developed supply chain management would be useful for delivering this part of the learning outcome, covering relationship management and strategic collaboration.

For learning outcome 4, learners need to be made aware of some of the more important issues impacting on supply chain management. Class and small-group discussions can help learners identify the various internal and external environmental issues that are relevant, including customers, suppliers, regulatory authorities, employees and organisational departments. Learners also need to understand the benefit of involving suppliers in new product development, this can impact on issues such as quality and delivery frequency. The particular situation of supply chain management in the public sector must also be delivered and this could be taught by a public sector supply chain officer covering the regulations in place and the process of tendering.

For learning outcome 5, learners need to understand the impact of technology on supply chain management and in particular the role of information technology in improving communication throughout the supply chain. Learners also need to examine the important role of electronic exchanges in supply chain management. A class visit to a business with good supply chain management systems with appropriate technology would be very useful in delivering this part of the learning outcome.

It is advisable to teach the learning outcomes in their learning outcome order (1 to 5) as each learning outcome builds on the knowledge of the previous one.

## **Assessment**

The preferred method of assessment for this unit is to have one full unit assignment allowing the learner to research aspects of supply chain management in their own organisation or another organisation that will allow them access. The assignment could if desired, be broken down into two, three or four or smaller assignments. The evidence could be in the form of a presentation or report covering the five learning outcomes and all the assessment criteria.

## Resources

### Books

Chopra S and Meindl P – *Supply Chain Management: Strategy, Planning and Operation*, 4th Edition (Pearson Education, 2009) ISBN 978-0136094517

Chaffey D – *E-Business and E-Commerce Management: Strategy, Implementation and Practice*, 4th Edition (Financial Times/Prentice Hall, 2009) ISBN 978-0273719601

Christopher M – *Logistics and Supply Chain Management*, 4th Edition (Financial Times/Prentice Hall, 2010) ISBN 978-0273731122

*Harvard Business Review on Managing the Value Chain* – (Harvard Business School Press, 2000) ISBN 978-1578512348

*Harvard Business Review on Supply Chain Management* – (Harvard Business School Press, 2006) ISBN 978-1422102794

Stadtler H and Kilger C – *Supply Chain Management and Advanced Planning: Concepts, Models, Software and Case Studies*, 4th Edition (Springer, 2007) ISBN 978-3540745112

Turban E, King D, Lee J K, Liang T P and Turban D – *Electronic Commerce 2010: A Managerial Perspective*, 6th Edition (Pearson Education, 2009) ISBN 978-0137034659

### Journals

*European Journal of Purchasing and Supply Management* (Elsevier)

*The Journal of Supply Chain Management* (Institute for Supply Management)

*Supply Chain Management: An International Journal* (Emerald)

### Websites

[www.cips.org](http://www.cips.org) The Chartered Institute of Purchasing and Supply

[www.iwvaluechain.com](http://www.iwvaluechain.com) Industry Week's The Value Chain

[www.logistics.about.com/mbody](http://www.logistics.about.com/mbody) News about logistics and the supply chain