Supply Chain
Topic Gateway Series No.10

Prepared by Jim Downey and Technical Information Service
Revised November 2008
About Topic Gateways

Topic Gateways are intended as a refresher or introduction to topics of interest to CIMA members. They include a basic definition, a brief overview and a fuller explanation of practical application. Finally they signpost some further resources for detailed understanding and research.

Topic Gateways are available electronically to CIMA members only in the CPD Centre on the CIMA website, along with a number of electronic resources.

About the Technical Information Service

CIMA supports its members and students with its Technical Information Service (TIS) for their work and CPD needs.

Our information specialists and accounting specialists work closely together to identify or create authoritative resources to help members resolve their work related information needs. Additionally, our accounting specialists can help CIMA members and students with the interpretation of guidance on financial reporting, financial management and performance management, as defined in the CIMA Official Terminology 2005 edition.

CIMA members and students should sign into My CIMA to access these services and resources.

The Chartered Institute of Management Accountants
26 Chapter Street
London SW1P 4NP
United Kingdom

T. +44 (0)20 7663 5441
F. +44 (0)20 7663 5442
E. tis@cimaglobal.com
www.cimaglobal.com
Definition and concept

‘Supply chain: a sequence of interdependent tasks linking the flow of goods from the original sources of raw materials through to the final customer.’

Michael Porter uses the term ‘value chain’ to stress that each activity in the chain can be evaluated in terms of how it adds value and incurs costs.

‘Supply chain management: the process of optimising supply chain efficiency to create value.’

Context

CIMA Study Paper P4 Organisational Management and Information Systems, Chapter 5, Operations Management

CIMA Study Paper P6 Management Accounting – Business Strategy, Chapter 8, Implementing and Controlling Plans

Related concepts

ERP; CRM; e-Business

Overview

Strategic management of the supply chain can have a major impact on an organisation’s performance. In the private sector, issues of cost, quality, delivery and flexibility in the supply chain can determine a company's competitiveness in the market. In the public sector, the need for more effective and efficient performance places the onus on supply chain management to add value and reduce waste.

To operate at optimal efficiency, a company’s supply chain needs to be integrated. This means that:

- Each link in the chain is driven by information received from the others.
- Value is created when all the links in the chain are integrated to produce an efficient flow of goods from end-to-end.

The objective of supply chain management is concerned with how a product or service is delivered to the customer. It is based on the principle that the customer
requires the right goods or services to be delivered at the right time, in the right place, for the right price.

Supply chain management emphasises the importance of relationships within each distribution channel to enhance long-term performance. Long-term relationships with suppliers, customers and intermediaries allow a more streamlined end-to-end operation to develop. This can create value through greater flexibility.

Key features of a flexible supply chain:

- **Customer Relationship Management (CRM)** – enables companies to engage in closer customer relationships. This helps them to identify and satisfy customer needs. They are also better able to forecast trends and improve the customer’s experience of the company’s products and services.

- **Integrated Planning** – incorporates customer demand with production systems to enhance the matching of supply and demand. This helps to reduce wastage and maximise efficiencies at each stage of the supply chain.

- **Adaptive Technology & Processes** – enables real-time, dynamic adjustments to the supply chain in order to respond better to changes in requirements.

**In Practice**

When developing a supply chain strategy, an organisation needs to consider the entire network in which it operates before deciding on the most appropriate strategy. This means taking an holistic view of the end-to-end process rather than seeing each supply chain operation as a separate component.

Businesses should define objectives, targets and processes for all members of the supply chain. Communication structures should be in place to support sharing of information, plans, schedules and forecasts between each member.

Businesses should understand any legal considerations that may affect decision making. For example, competition law might dictate who a company may or may not work with.

A supply chain strategy should also involve as many functions within the supply chain organisation as possible. In this way, stakeholders understand the full impact of the strategy on the business. The strategy should include:
• **Inventory Management/Planning** – inventory management plays a key role in the movement of materials and products through the chain.

• **Purchasing** – purchasing is responsible for obtaining materials, components, suppliers and services required for use in production.

• **Distribution/Logistics** – distribution moves finished products from production to customers.

Successful supply chain management involves creating and managing relationships with a competent network of suppliers. These relationships can take many different forms. The key is being able to integrate these arrangements within the strategic plans and direction of the company.

The three main supplier arrangements to consider:

• **Contract** – a formal agreement to supply goods or services at specific cost over a specific period of time.

• **Partnership** – a commitment to share benefits and risk over an agreed period of time.

• **Strategic Alliance/Joint-Venture** – a contractual agreement to achieve certain objectives.

Performance measurement is critical in ensuring a successful supply chain model. Companies need to measure each stage of the supply chain to identify new opportunities, constraints and potential failures in the system. Measurement may vary from real-time instant feedback to daily, weekly, or monthly, as appropriate.

**Emerging trends in supply chain management**

• **Radio Frequency Identification (RFID) technology** – RFID tags are essentially barcodes what the product is, where it has been, when it expires and any other programmed technology generates data about the location of pallets, cases, and individual products in the supply chain. It can identify when and where merchandise is manufactured, picked, packed and shipped. In addition:
  
  ➢ RFID can also inform retailers about the expiry dates of perishable items because their electronic readers can read RFID tags automatically.
A lorry carrying RFID-tagged merchandise can be tracked automatically when it passes an RFID sensor without ever having to slow down to be scanned.

RFID has the potential to add a substantial amount of visibility into the supply chain.

- **Web-based technologies** – an estimated $1 trillion of the $7 trillion spent annually on components, supplies and services worldwide can be saved by employing web-based technologies (USA Today, 7 February 2000). Increasingly, whole industries are using the internet to bring buyers and sellers together in order to decrease costs and increase efficiencies. In addition:
  - The business-to-business (B2B) marketplace was previously categorised as vertical (i.e. connecting buyers and sellers in a specific industry) or horizontal (i.e. selling a variety of materials that a company might need to run its business). The development of new ‘digital supply chains’ have blurred that distinction.
  - Companies are now expanding the scope of their business models to gain further competitive advantages as a result of web-based technologies.

- **Mass Customisation** – tailoring a product to a specific customer’s needs is becoming a major source of competitive advantage. Many businesses are now reconfiguring their supply chains to allow greater flexibility while maintaining economies of mass production. For example, Dell has successfully used a strategy of pre-manufacturing computers with minimum parts. Dell then adds the processor, memory, hard-drive and peripherals according to the customer’s order as it arrives.

### Case studies

The General Motors case study ‘Digital Do-Overs’ on the Forbes.com website demonstrates how they used web technology to enhance significantly their supply chain processes.

Available from: [http://digbig.com/4xwxt](http://digbig.com/4xwxt)

[Accessed 20 November 2008]

The UPS Supply Chain Solutions website has a number of case studies, including that of Adidas who consolidated their distribution system into a single, streamlined network. Automated inventory and order fulfilment systems were
added to allow the company to scale its services rapidly to enhance the supply chain. Available from: www.ups-scs.com
[Accessed 20 November 2008]

References


Further Information

Articles

Full text articles available from Business Source Corporate through My CIMA www.cimaglobal.com/mycima
[Accessed 20 November 2008]


Cullen, J. and Bernon, M. *Many happy returns from supply chain management*. *CIMA Insight*, September 2004
Available from: www.cimaglobal.com/insight
[Accessed 20 November 2008]


Available from: [www.cimaglobal.com/financialmanagement](http://www.cimaglobal.com/financialmanagement) [Accessed 20 November 2008]


**Books**


CIMA Publications

*Improving decision making in your organisation: the CIMA Strategic Enterprise Management (SEM) initiative.* CIMA Research Report, 2003
Available from: [http://digbig.com/4xwxp](http://digbig.com/4xwxp)
[Accessed 20 November 2008]

Available from: [www.cimaglobal.com/technicalreports](http://www.cimaglobal.com/technicalreports)
[Accessed 20 November 2008]

Other Publications

[Accessed 20 November 2008]

[Accessed 20 November 2008]

Websites

Supply Chain Management Review
This website offers free research, case studies, database directories and market intelligence on emerging trends and best practices in supply chain management.
Available from: [http://www.scmr.com](http://www.scmr.com)
[Accessed 20 November 2008]

Council of Supply Chain Management Professionals (CSCMP)
The CSCMP is a US-based organisation. The website has some useful articles on latest supply chain management developments and numerous case studies.
Available from: [www.cscmp.org](http://www.cscmp.org)
[Accessed 20 November 2008]

Chartered Institute of Purchasing & Supply (CIPS)
CIPS is an international organisation, based in the UK and serving the purchasing and supply profession. CIPS is dedicated to promoting best practice and provides a wide range of information on supply chain management.
Available from: [www.cips.org](http://www.cips.org)
[Accessed 20 November 2008]