

Chapter 8

E-Supply Chain, Collaborative Commerce, and Intrabusiness EC

Learning Objectives

Upon completion of this chapter, you will be able to:

1. Define e-supply chain and describe its characteristics and components.
2. List supply chain problems and their causes.
3. List solutions to supply chain problems provided by EC.
4. Define c-commerce and list its major types.
5. Describe collaborative planning and Collaboration, Planning, Forecasting and Replenishing (CPFR), and list their benefits.
6. Define intrabusiness EC and describe its major activities.
7. Discuss integration along the supply chain.
8. Understand corporate portals and their types and roles.
9. Describe e-collaboration tools such as workflow and groupware.

Content

How General Motors Is Collaborating Online

- 8.1 E-Supply Chains
 - 8.2 Supply Chain Problems and Solutions
 - 8.3 Collaborative Commerce
 - 8.4 Collaborative Planning, CPFR, and Collaborative Design
 - 8.5 Internal Supply Chain Solutions, Intrabusiness, and B2E
 - 8.6 Integration Along the Supply Chain
 - 8.7 Corporate (Enterprise) Portals
 - 8.8 Collaboration-Enabling Tools: From Workflow to Groupware
- Managerial Issues

Real-World Case: Portal Speeds Product R&D at Amway

Appendix 8a: Intranets

Answers to Pause/Break Section Review Questions

Section 8.1 Review Questions

1. *Define the e-supply chain and list its three major parts.*

A supply chain that is managed electronically, usually using Web technologies.

2. *Describe success factors of e-supply chain management.*

These factors include the ability to see collaboration as an asset, information visibility, speed/quality/customer service, and tight integration.

3. *List the six processes of e-supply chains.*

These include replenishment, e-procurement, collaborative planning, collaborative design/product development, e-logistics and the use of B2B exchanges/supply webs.

4. *List the major e-supply chain management infrastructures and enabling tools.*

These include extranets, intranets, corporate portals, workflow systems and groupware.

Section 8.2 Review Questions

1. *Describe some typical problems along the supply chain.*

Some problems include missed deliveries/improper inventories and quality problems.

2. *Describe the reasons for supply chain-related problems.*

There are several potential reasons, but many center on the lack of communication and trust.

3. *Describe the bullwhip problem.*

The bullwhip effect is when large fluctuations in inventories along the supply chain occur, resulting from small fluctuations in demand for finished products.

4. *Describe the benefits of information sharing along the supply chain.*

The major benefit is an improvement in the overall functioning of the supply chain – better communication provides more information for better planning.

5. *List some EC solutions to supply chain problems.*

These solutions come in the areas of order taking, order fulfillment, payment, inventory planning and collaborative commerce.

Section 8.3 Review Questions

1. *Define c-commerce.*

The use of digital technologies that enable companies to collaboratively plan, design, develop, manage and research products, services and innovative EC applications.

2. *List the major types of c-commerce.*

These include joint design and forecasting.

3. *Describe some examples of c-commerce.*

Some examples include communication/collaboration at RE/MAX, information sharing at Marriot and supply chain visibility at Nygard.

4. *Define collaborative networks and distinguish them from traditional supply chain collaboration.*

A supply chain network that can be widely dispersed in location that is able to communicate due to the use of c-commerce.

5. *Describe KM–collaboration relationships.*

Collaborative commerce is essentially an integration of knowledge management, EC, and collaboration tools and methodologies that are designed to carry out transactions and other activities within and across organizations.

6. *List some major barriers to c-commerce.*

These include technical limitations, security concerns, internal resistance and lack of internal skills.

Section 8.4 Review Questions

1. *Define collaborative planning.*

In collaborative planning, business partners—manufacturers, suppliers, distribution partners, and other partners—all have real-time access to point-of-sale order information.

2. *Define CPFR and describe its advantages.*

A project in which suppliers and retailers collaborate in their planning and demand forecasting to optimize flow of materials along the supply chain. This process helps improve integration and reduces costs and increases speed.

3. *Describe APS efforts.*

Programs that use algorithms to identify optimal solutions to complex planning problems that are bound by constraints.

4. *Describe PLM.*

Business strategy that enables manufacturers to control and share product-related data as a part of product design and development efforts.

Section 8.5 Review Questions

1. *What is an internal supply chain?*

An internal supply chain is the flow of materials from business unit to business unit.

2. *List the major intrabusiness EC categories.*

The major categories include business-to-employee, business unit-to-business unit, and business employee-to-business employee.

3. *Describe B2E EC.*

B2E EC is when an organization delivers products or services to its employees.

4. *Describe EC activities among business units.*

EC activities among business units usually involve strategic business units interfacing with each other.

5. *Describe EC among corporate employees. Can you think of additional activities among corporate employees that might be of interest?*

Corporate employees can interact with each other using EC through classified ad systems and collaboration systems. Student answers will vary.

Section 8.6 Review Questions

1. *Describe internal and external integration.*

Internal integration is integrating systems that function together within a business, whereas external integration is the integration of systems from different firms.

2. *Explain the need to connect to an ERP system.*

In many firms the ERP system is the core of logistics and planning and it contains a wealth of valuable information.

3. *Describe the need for integrating standards and methodologies.*

Without standards, integration becomes very complex, with each integration becoming its own unique project.

Section 8.7 Review Questions

1. *What is a corporate portal?*

A corporate portal is a gateway for entering a corporate Web site, enabling communication, collaboration and access to company information.

2. *List the benefits of corporate portals.*

Corporate portals can cut costs, create a more efficient workplace and increase profits.

3. *List five applications of portals.*

Some of the possible applications of corporate portals include: knowledge bases and learning tools, business process support, collaboration and project support, data access, and security applications.

4. *Discuss the issue of justifying enterprise portals.*

Many of the benefits are intangible, so cost justification is more difficult.

5. *List the benefits of corporate portals.*

These benefits include simple access/navigation, improved access to information, usability of common applications and the ability to use platform independent applications.

Section 8.8 Review Questions

1. *Define workflow systems and management.*

The automation of workflows, so that documents, information, and tasks are passed from one participant to the next in the steps of an organization's business process.

2. *Explain the types and benefits of workflow systems.*

The types include collaborative workflow, production workflow and administrative workflow.

3. *List the major groupware tools.*

See Exhibit 8.9.

4. *Describe GDSSs and electronic meeting systems.*

GDSSs (Group Decision Support Systems) and electronic meeting systems allow users to collaborate and make decisions regardless of their physical locations.

5. *Describe the various types of electronic teleconferencing, including Web-based conferencing.*

Teleconferencing can take place using telephone technology, video, data (documents) or the Web.

6. *Describe whiteboards and screen sharing.*

Whiteboards are shared applications where a group can share a virtual diagramming system. Screen sharing allows other remote users to see one user's computer desktop.

Answers to EC Application Case Questions

EC Application Case 8.1: Global Supply Chain Synchronization at Corning, Inc.

1. *What were the problems of Corning's old system?*

It was decentralized, but created delays and increased costs.

2. *What was the logic behind decentralizing operations?*

It was hoped that integration would allow the company to decrease costs by leveraging the size of its operations.

3. *How is integration of information done in the decentralized environment?*

Through the use of PeopleSoft ERP SCM system.

4. *How is flexibility provided by the new system?*

The improved infrastructure and common database access provides better information transparency.

EC Application Case 8.2: Webcor Construction Goes Online with its Partners

1. *Draw the supply chain of Webcor before ProjectNet.*

The supply chain for this project was very linear. Webcor would purchase information from designers and architects, and then contract with construction managers, builders, and subcontractors to create buildings that would then be sold to developers.

2. *What B2B model is this (e.g., sell-side, buy-side, etc.)?*

This business model uses collaborative commerce.

3. *What are the benefits of this c-commerce project to Webcor?*

This system allows the company to more easily and efficiently manage their operations due to the increased ease of communications. This ease of communications allows the company to operate more efficiently, resulting in lower overall costs.

4. *What are the benefits of this c-commerce project to Webcor's clients?*

This system allows clients greater data transparency with Webcor, resulting in faster ease of communications and lower costs.

EC Application Case 8.3: CPFR Initiatives at Ace Hardware

1. *What motivated Ace to try CPFR?*

To leverage its size with suppliers to provide better service and better inventory control.

2. *Describe how Ace deployed the CPFR system.*

The firm conducted a pilot project and has gradually added more partners.

3. *Can you guess the common characteristics of the suppliers Ace used first?*

Student answers will vary. It is possible that these were high-volume/cost suppliers that were interested in CPFR.

EC Application Case 8.4: E-Commerce Provides Decision Support to Hi-Life

1. *How is corporate decision making be improved by the new system?*

It provides more accurate and timely information for inventory decisions.

2. *Summarize the benefits of the Jornada system to the customers, suppliers, store management, and employees.*

Customers are more likely to have products available. Suppliers are given more accurate and consistent orders. Store management saves time in inventory. Employees can take inventory quicker, with less chance of errors.

3. *The data collected at ActiveSync can be uploaded to a PC and transmitted via regular telephone lines (or a DSL) to the corporate intranet via the Internet. It has also been suggested that transmission be done using a wireless system. Comment on the proposal.*

Student answers will vary.

EC Application Case 8.5: Intrabusiness E-Commerce at Toshiba America

1. *What are the benefits of Toshiba's intranet to the dealers?*

It allows for quicker, cheaper overnight delivery while also increasing communications and customer satisfaction.

2. *What are the wireless devices used for?*

They send picking information to the warehouse to speed handling and delivery.

3. *What role does FedEx play in the order-fulfillment process?*

The warehouse is close to FedEx, who ships the parts overnight.

EC Application Case 8.6: Integrating EC and ERP at Cybex

1. *Discuss the relationships between the EC applications and ERP system. (Try to identify as many relationships as possible.)*

These relationships include:

Customer facing: Online orders and order tracking

Supplier facing: Orders, material listings, short and long term forecasts

2. *What is the role of the planning module?*

This module calculates the parts needed for each system.

3. *Summarize all of the activities needed for successful implementation of the ERP system at Cybex.*

These include reducing suppliers, installing and configuring the system, building customer and supplier facing applications and testing.

4. *List some of the benefits of the ERP system to Cybex.*

Some benefits include reducing materials, reducing suppliers, decreased paperwork, and decreased build time.

EC Application Case 8.7: Use of a Workflow System to Manage Currency Flows at a German Bank

1. *Identify the parties in this case that need to collaborate with each other.*

Collaboration must occur between traders, controllers and administrators.

2. *Create a diagram that shows the flow of information in LORA.*

Order comes in -> placed in a public folder -> picked up by a trader -> trader executes the order

3. *How does the workflow system differ from typical transaction-oriented applications?*

It allows the uptake and execution of orders from anywhere in the world.

4. *Explain how the system facilitates collaboration.*

The system allows all parties to view orders and status.

Answers to Discussion Questions

1. *Discuss the benefits of e-supply chains.*

E-supply chains allow for more efficient processes and expanded communication and collaboration. In many cases they result in decreased delays, increased information flow, better planning and lower costs.

2. *Discuss the relationship between c-commerce and corporate portals.*

Corporate portals can be used as a method of collaborative commerce for employees, customers and other stakeholders.

3. *Compare and contrast a commercial portal (such as Yahoo) with a corporate portal.*

Both Web sites provide a variety of information and a variety of types of potential learning and interaction. An Internet portal such as Yahoo! is horizontal, providing a variety of different types of information about various topics. A corporate portal is vertical, providing information only about the company.

4. *Explain the need for groupware as a facilitator of collaboration.*

Groupware allows different groups and individuals to freely collaborate and communicate. This is the function groupware is designed for, and it simplifies the process and generally adds to the richness of the communication.

5. *Discuss the need for workflow systems as a companion to e-commerce.*

Workflow systems allow for more efficient movement of orders, information or goods.

6. *Discuss the relationship between portals and intranets at the same organization.*

A corporate portal is the gateway through which users access the various applications conducted over the intranet, such as training, accessing databases, or receiving customized news.

7. *It is said that c-commerce signifies a move from a transaction focus to a relationship focus among supply chain members. Discuss.*

Student responses will vary. By increasing communication, information flow and openness, c-commerce tends to view interactions as relationships instead of transactions.

8. *Discuss the need for virtual meetings.*

Student responses will vary. These meetings allow for greater communication that may not have existed due to the constraints of physical meetings.

9. *Discuss how CPFR can lead to more accurate forecasting and discuss how it can resolve the bullwhip effect.*

By increasing information flow and openness across the supply chain, CPFR allows all parties to have access to the data used to make forecasts. Having more real data (and fewer estimates) allows for more accurate forecasts and inventory levels.

10. *Discuss the advantage of tools (suites) such as LotusNotes/Domino. Do these tools have any disadvantages?*

Student responses will vary. These tools allow for richer communication and collaboration.

11. *Discuss the ways in which GDSS can facilitate the process of group decision making.*

These systems attempt to increase collaboration in decision making while also providing access to data in a structured environment.

Internet Exercises

(Note: URLs may change over time; please check the Internet Exercises on the Turban Web site for possible updates: www.prenhall.com/turban.)

1. Enter ca.com/products and register. Then take the Clever Path Portal Test Drive (ca.com/Solutions/Collateral.asp?CID=33540&ID=305). (Flash Player from Macromedia is

required.) Then enter **peoplesoft.com** and **plumtree.com**. Prepare a list of the major products available for building corporate portals.

Student reports will vary.

2. Enter **plumtree.com**. Find the white papers about corporate portals and their justification. Prepare a report based on your findings.

Student reports will vary.

3. Enter **doublediamondsoftware.com/product_overview.htm** and go to “products.” Identify all potential B2B applications and prepare a report about them.

Student reports will vary.

4. Investigate the status of CPFR. Start at **cpfr.org/cpfr_pdf/index.html**, **vics.org**, **google.com**, and **yahoo.com**. Also enter **supply-chain.org** and find information about CPFR. Write a report on the status of the CPFR project.

Student reports will vary.

5. Enter **mySAP.com** and find the key capabilities of the Enterprise Portal there. List the benefits of five of these capabilities.

Student reports will vary.

6. Enter **nokia.com**, **mdsi.com**, and **symbolic.com**. Identify the B2E products you find at these sites. Prepare a list of the different products.

Student reports will vary.

7. Enter **i2.com** and review their products. Explain how some of the products facilitate collaboration.

This firm offers software products to assist in supply chain collaboration in the following areas:

- Fulfillment Optimization
- Logistics Optimization
- Production Optimization
- Revenue and Profit Optimization
- Spend Optimization

8. Enter **collaborate.com** and read about recent issues related to collaboration. Prepare a report.

Student reports will vary.

9. Enter **smarterwork.com**. Find out how collaboration is done. Summarize the benefits of this site to the participants.

It appears that collaboration is accomplished through an internal messaging system for clients, providers and administrators.

10. Enter **intraspect.com** and read the company vision for Collaborative Commerce. Then view the demo. Explain in a report how the company facilitates c-commerce.

Student reports will vary.

11. Enter **lotus.com** and find their collaboration-support products. How do these products support groups?

Lotus is a division of IBM that offers many software solutions including communication and collaboration software. The current product offering (listed below) offers several methods of group work with the ability to store and cross-reference communication using an IBM database solution.

- Lotus Workplace Messaging
- Lotus Notes
- Lotus Domino
- Lotus Domino Express
- Lotus Domino Web Access
- Lotus Domino Access for Microsoft Outlook
- Lotus Domino Designer
- Lotus Enterprise Integration
- Lotus Mobile & Wireless Solutions
- Lotus Domino Unified Communication Services
- Lotus Domino WebMail

12. Enter **i2.com** and identify the collaborative tools for CRM, SCM, and SRM. Prepare a report that will show the major capabilities of each solution.

Student reports will vary. See also 7 above.

13. Enter **supplyworks.com** and **worldchain.com**. Examine the functionalities provided for supply chain improvements (the inventory management aspects).

Worldchain.com offers a variety of software and systems to automate supply chains, display and order inventory and add communication.

14. Enter **3M.com** and **smartboard.com**. Find information about their whiteboards. Compare the products.

Both sites appear to have electronic whiteboards that capture notes and export them as images or text. 3M's product is at

http://www.3m.com/meetings/product_catalog/digitalwalldisplay/dwd_specs.jhtml , while

Smartboard's is at <http://www.smartboard.com>.

Team Assignments and Role Playing

1. *Have each team download a free copy of Groove from **groove.net**. Install the software on the members' PCs and arrange collaborative sessions. What can the free software do for you? What are its limitations?*

Student reports will vary.

2. *Each team is assigned to an organization. The team members will attempt to identify several supply chains, their components, and the partners involved. Draw the chains and show which parts can be treated as e-supply chain parts.*

Student reports will vary.

3. *Each team is assigned to a major vendor of corporate portals, such as Plumtree, Tiberio, Computer Associates, or PeopleSoft. Each team will check the capabilities of the corporate portal tools and try to persuade the class that its product is superior.*

Student reports will vary.

4. *Each team is assigned to one area of collaborative commerce. The mission is to find recent applications and case studies in that area. Present the findings to the class.*

Student reports will vary.

Answers to End-of-Chapter Real-World Case Questions: Portal Speeds Product R&D at Amway

1. *Identify the KM elements in this case.*

Amway is using knowledge management with the system by digitizing corporate R&D knowledge and making it easily available through an Internet-based system.

2. *What activities related to decision making and support are evidenced in this case?*

The system provides easy access to a variety of data, allowing decisions to be made using more information and in a timely manner.

3. *Relate this case to collaborative commerce.*

This is similar to collaborative commerce in that information is being shared. However, information in this case is being shared within the company, whereas collaborative commerce is information sharing between different companies.

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