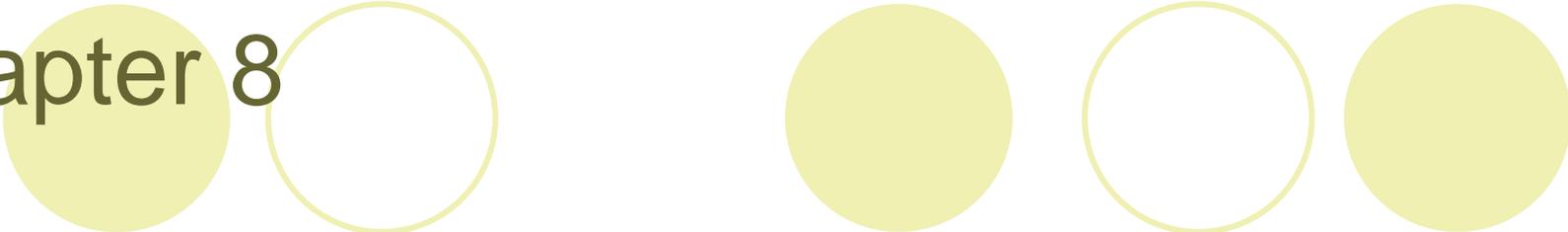


Chapter 8



Enterprise Systems

Information Technology For Management 6th Edition

Turban, Leidner, McLean, Wetherbe

Lecture Slides by L. Beaubien, Providence College

John Wiley & Sons, Inc.

Learning Objectives



- Understand the essentials of enterprise systems and computerized supply chain management. Understand the essentials of enterprise systems and computerized supply chain management.
- Describe the various types of supply chains.
- Describe some major problems of implementing supply chains and some innovative solutions.
- Describe the need for integrated software and how ERP does it.

Learning Objectives (Continued)

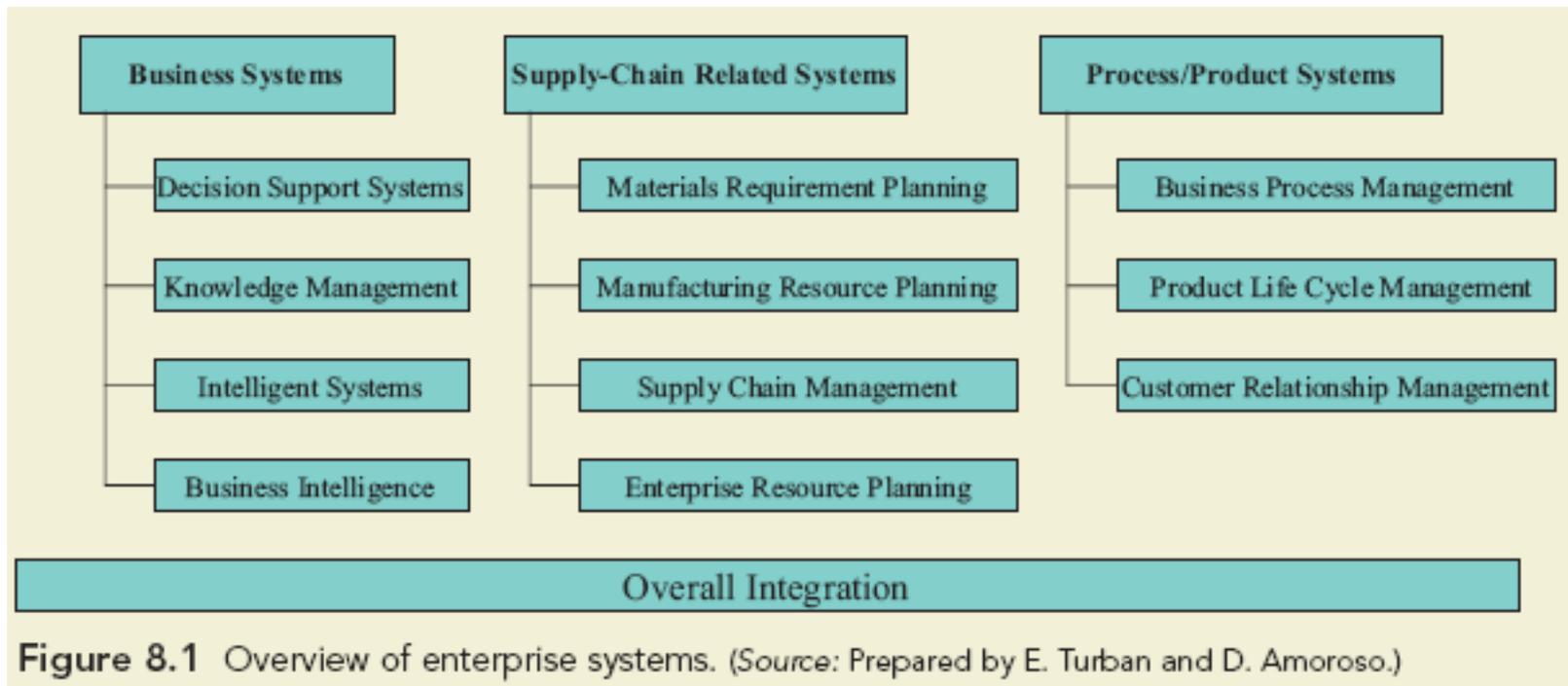
- Understand business process management and how to enhance effectiveness
- Describe the product lifecycle management stages
- Describe CRM and its support by IT

ERP and Supply Chains

ERP or **enterprise systems** control all major business processes with a single software architecture in real time.

- It is comprised of a set of applications that automate routine back-end operations such as:
 - Financial management
 - Inventory management
 - Scheduling
 - Order fulfillment
 - Cost control
 - Accounts payable and receivable
- It includes front-end operations such as:
 - POS
 - Field Sales
 - Service
- It also increases efficiency, improves quality, productivity, and profitability.

ESSENTIALS OF ENTERPRISE SYSTEMS AND SUPPLY CHAINS



Supply Chain

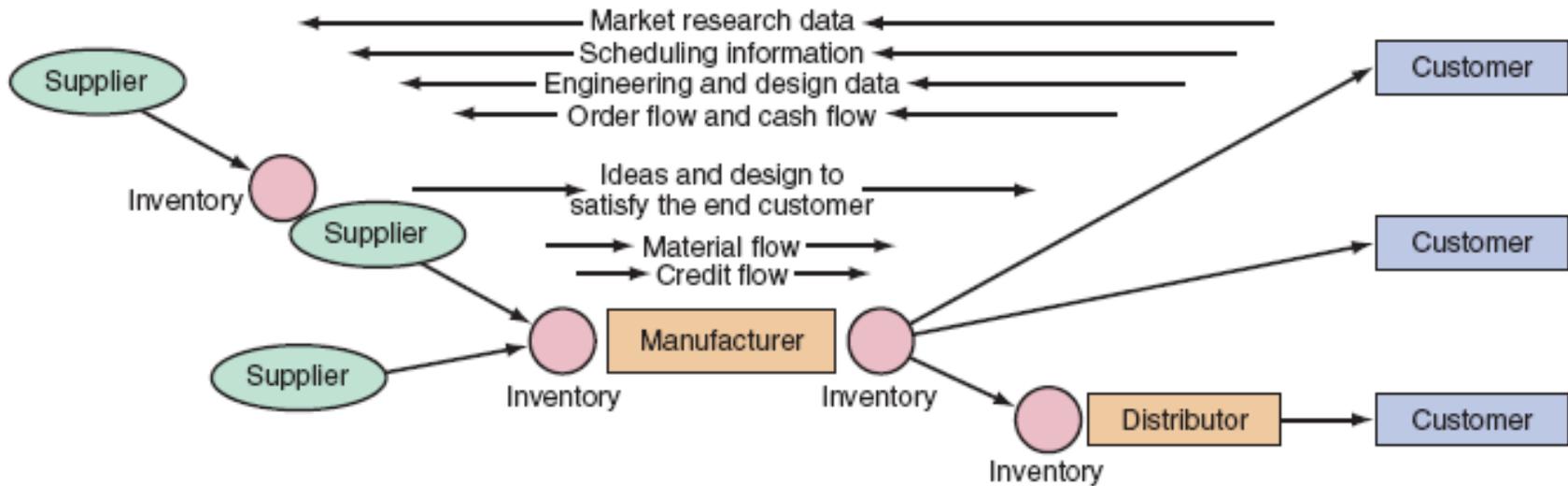


Figure 8.2 The supply chain. (Source: Heizer and Render, 2004.)

Supply Chain Problems

Adding value along the chain is essential for competitiveness, however, problems exist especially in complex or long chains and in cases where many business partners are involved. These problems are due to uncertainties and the need to coordinate several activities, internal units, and business partners.

- **Demand forecasts are a major source of uncertainties**
 - **Competition**
 - **Prices**
 - **Weather conditions**
 - **Technological development**
 - **Customer confidence**
- **Uncertainties exist in delivery times**
 - **Machine failures**
 - **Road conditions**
 - **Shipments**
- **Quality problems may also create production delays**

Supply Chain Problems (Continued)

The **bullwhip effect** refers to erratic shifts in orders up and down the supply chain because of poor demand forecasting, price fluctuation, order batching, and rationing within the chain. Even slight demand uncertainties and variability become magnified if each distinct entity, on the chain, makes ordering and inventory decisions with respect to its own interest above those of the chain. Distorted information can lead to tremendous inefficiencies, excessive inventories, poor customer service, lost revenues, ineffective shipments, and missed production schedules.

A common way to solve the bullwhip problem is by sharing information along the supply chain through EDI, extranets, and groupware technologies. For example employing a **vendor-managed inventory (VMI) strategy**, the vendor monitors inventory levels and when it falls below the threshold for each product this automatically triggers an immediate shipment.

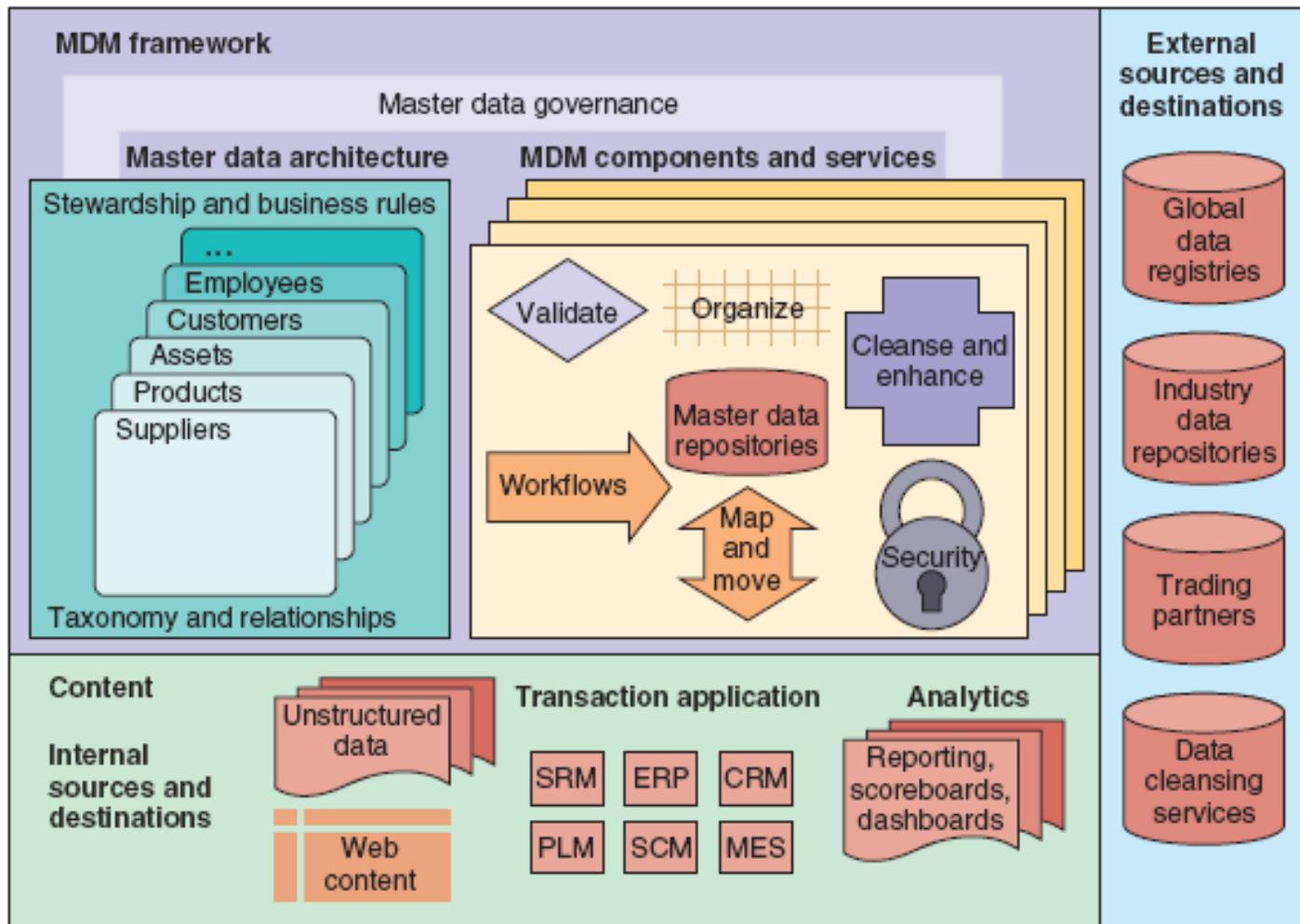
Supply Chain Solutions

Information sharing among supply chain partners (*c-commerce*) sometimes referred to as the collaboration supply chain is one method to overcome problems in the flow.

Others are:

- Optimal Inventory Levels
- Supply Chain Coordination and Collaboration
- Supply Chain Teams
- Performance Measurement and Metrics
- Various IT-Assisted Solutions
 - Wireless technology
 - Optimal shipping plans
 - Strategic partnerships with suppliers
 - Just-in-time

Supply Chain Solutions (Continued)



Supply Chain Collaboration Management



Every company that has business partners has to manage the relationships with them. Information needs to flow between the firms and must be constantly updated and shared.

- Manual methods include: phone, fax, and mail
- EDI is typically used by large corporations
- EC PRM functions include:
 - Partner profiles
 - Partner communications
 - Lead management (of clients)
 - Targeted information distribution
 - Connecting the extended enterprise
 - Partner planning
 - Centralized forecasting
 - Group planning
 - E-mail
 - Price lists