

MIS

CHAPTER 11

ENTERPRISE SYSTEMS

Apple first day

In Tech We trust

Dell in Action

What is SCM

Salesforce.com CRM

What is ERP?

System Categories

Enterprise-wide Systems

aka **Enterprise Systems**, are systems that allow companies to integrate information across operations on a company-wide basis

Interorganizational Systems (IOS)

Systems that communicate across organizational boundaries whose goal it is to streamline information flow from one company to another

The Value Chain – Internally Focused

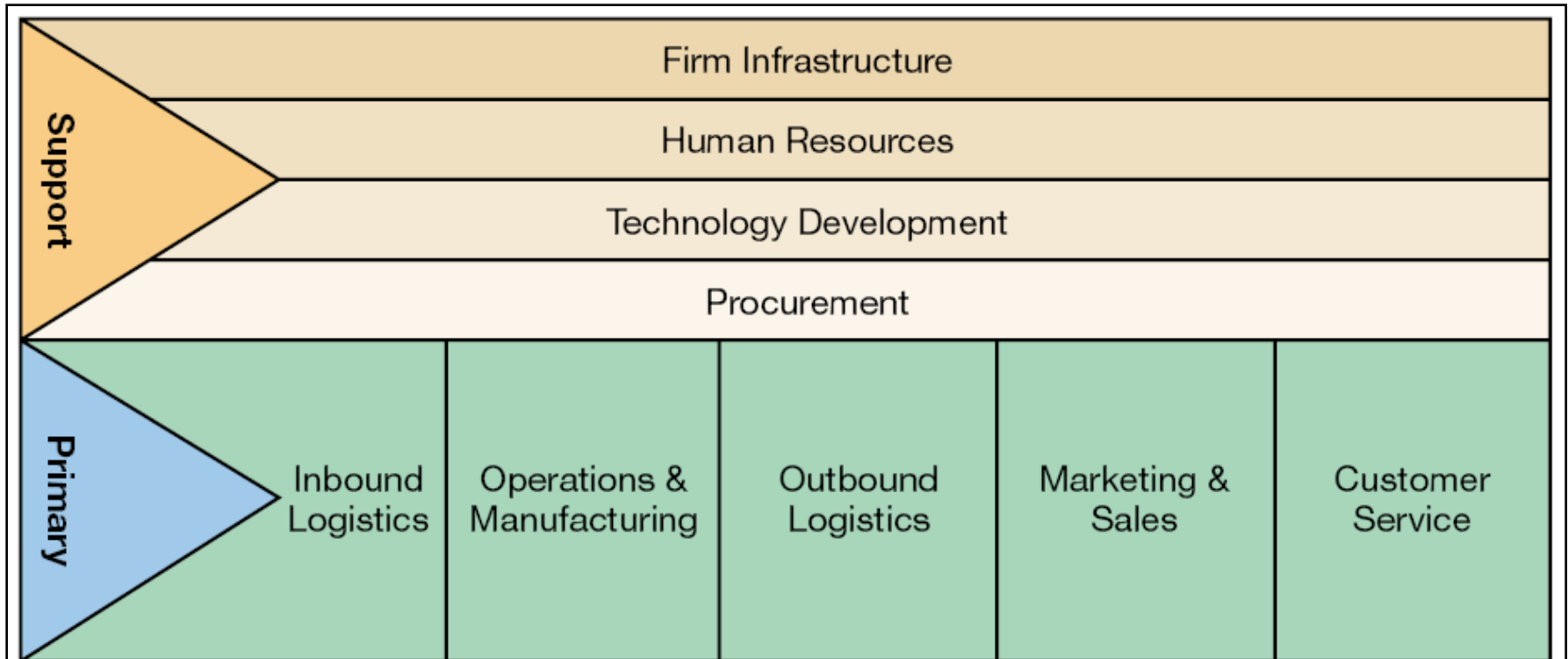


Figure 7.5 ➔ Value chain framework.

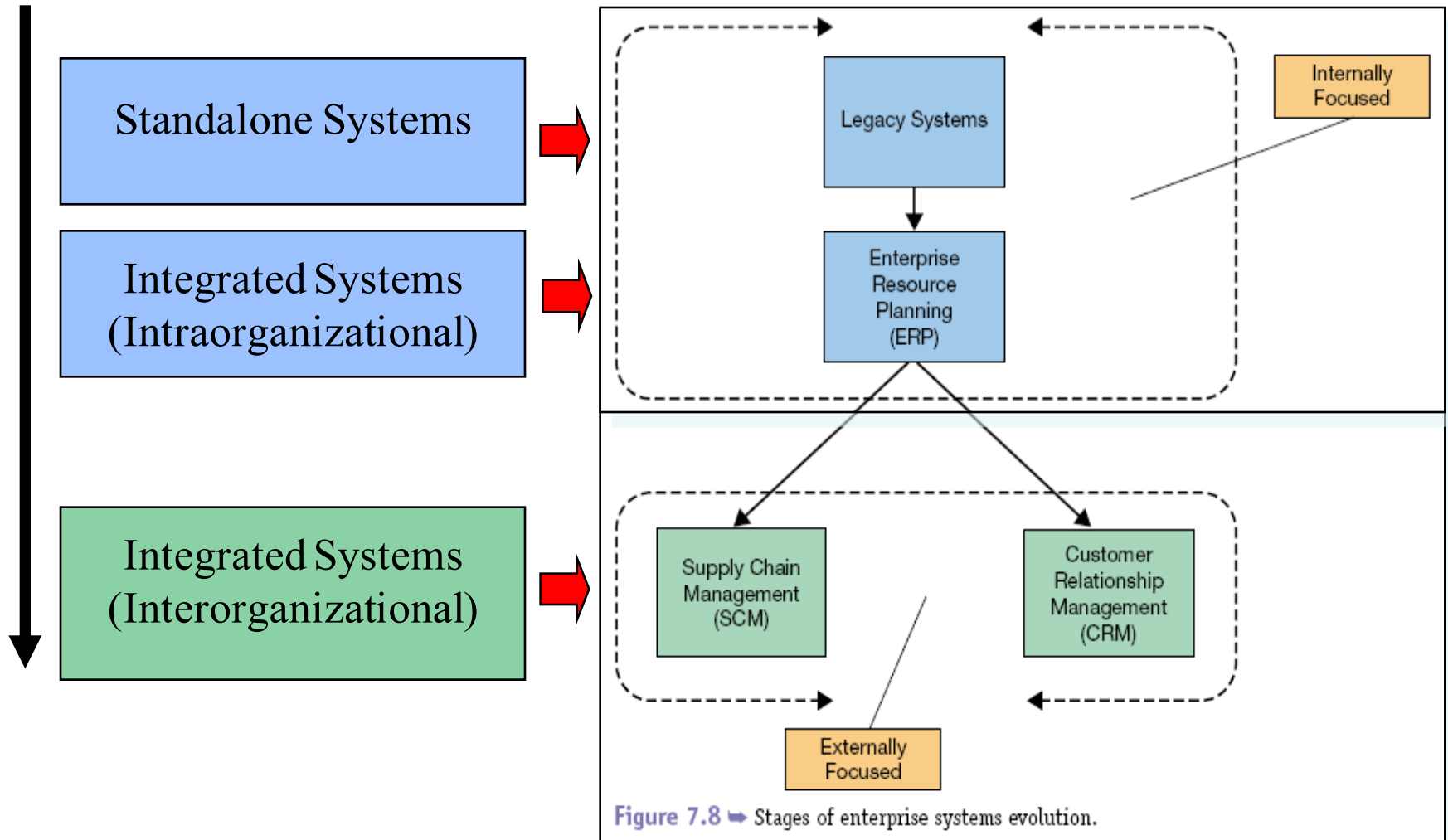
Porter and Millar, 1985.

Used to identify the flow of information through a set of business activities. It identifies two types of activities: **primary** and **support**.

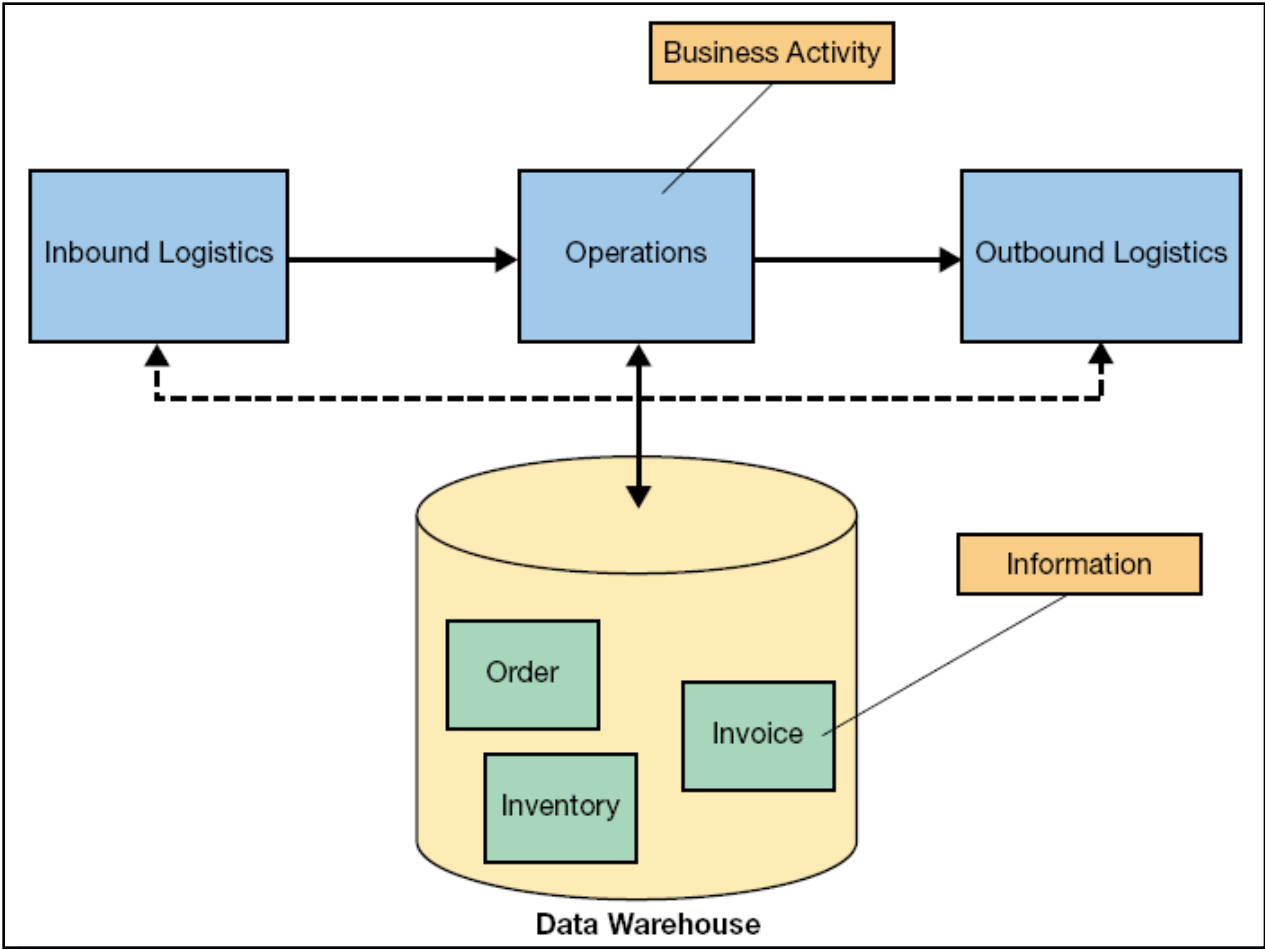
Enterprise System Evolution

System Evolution

System Types



Enterprise Systems – Integrated System Example



Integrated Systems – Information is stored in a single data repository and can be accessed and updated by all functional systems (e.g. Operations)

Enterprise Resource Planning

- ▶ Integrated system
- ▶ Collects and processes data
- ▶ Manages and coordinates resources, information, and functions
- ▶ Many components, including:
 - Hardware, software, procedures, and input from all functional areas

Enterprise Resource Planning (cont'd.)

- ▶ Well-designed ERP system benefits:
 - Increased availability, timeliness & accuracy of information
 - improved response time
 - Improved customer & employee satisfaction
 - Improved planning and scheduling
 - Improved supplier relationship
 - Improved reliability of information
 - Reduction in inventory & labor costs
 - Reduction in order-to-fulfillment time

Sales

- Cost of goods sold

Gross margin

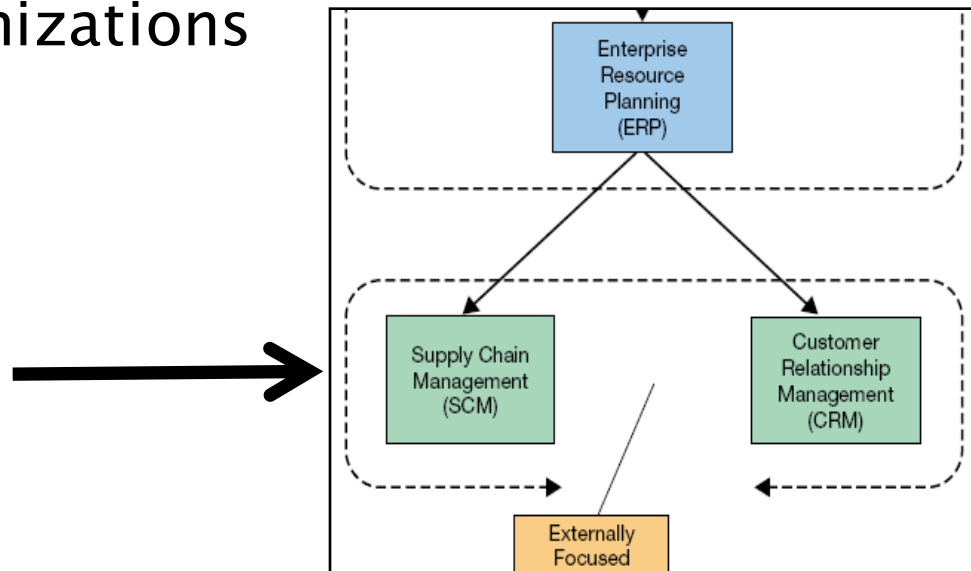
- Expenses

Net income

Supply Chain Management

► Supply chain

- Integrated network
- Consisting of an organization, its suppliers, transportation companies, and brokers
- Used to deliver goods and services to customers
- Exist in both service and manufacturing organizations



What is SCM

Figure 7.8 ➤ Stages of enterprise systems evolution.

Supply Chain Management (cont'd.)

- ▶ **Supply chain management (SCM)**
 - Process of working with suppliers and other partners in the supply chain to improve procedures for delivering products and services
 - Coordinates:
 - Procuring materials
 - Transforming materials into intermediate and finished products or services
 - Distributing finished products or services to customers

Supply Chain Management (cont'd.)

- ▶ In manufacturing firm, information in an SCM system flows between the following areas:
 - Product flow
 - Information flow
 - Finances flow
- ▶ Four key decisions in supply chain management:
 - Location
 - Inventory
 - Production
 - Transportation

Dell Computer's Supply Chain

- ▶ Modified its supply chain from a “push” to a “pull” manufacturing process
 - Also known as “built to order (BTO)”
- ▶ Main sales channel is direct sales to customers
- ▶ Dell has been able to reduce costs by eliminating intermediaries and shorten delivery time

Dell in Action

SCM Technologies

- ▶ Information technologies and the Internet play a major role in implementing an SCM system
- ▶ **Electronic Data Interchange (EDI)**
- ▶ **Internet-Enabled SCM**

Internet–Enabled SCM

- ▶ Improves information sharing throughout the supply chain
- ▶ Can improve the following SCM activities:
 - Purchasing/procurement
 - Inventory management
 - Transportation
 - Order processing
 - Customer service
 - Production scheduling

Sales

- Cost of goods sold

Gross margin

- Expenses

Net income

E-marketplaces

▶ Third-party exchange

- Provides a platform for buyers and sellers to interact with each other and trade more efficiently online

▶ Benefits

- Increases efficiency and effectiveness in SC
- Provides opportunities for sellers and buyers to establish new trading partnerships
- Provides a single platform for prices, availability, and stock levels that's accessible to all participants

Sales

- Cost of goods sold

Gross margin

- Expenses

Net income

E-marketplaces (cont'd.)

- Solves time constraint problems for international trade and making it possible to conduct business around the clock
- Makes it easy to compare prices and products from a single source instead of spending time contacting each seller
- Reduces marketing costs more than traditional sales channels can

Sales

- Cost of goods sold

Gross margin

- Expenses

Net income

E-marketplaces (cont'd.)

▶ E-distributor

- Marketplace owned and operated by a third party that provides an electronic catalog of product
- Maintenance, repair, and operations (MROs) services
 - Includes services from different vendors
 - E-distributor coordinates them into one package for customers
- Example of a horizontal market

Online Auctions

- ▶ Brings traditional auctions to customers around the globe
 - Makes it possible to sell far more goods and services than at a traditional auction
- ▶ Brokerage business model
- ▶ **Reverse auctions**
 - Invite sellers to submit bids for products and services

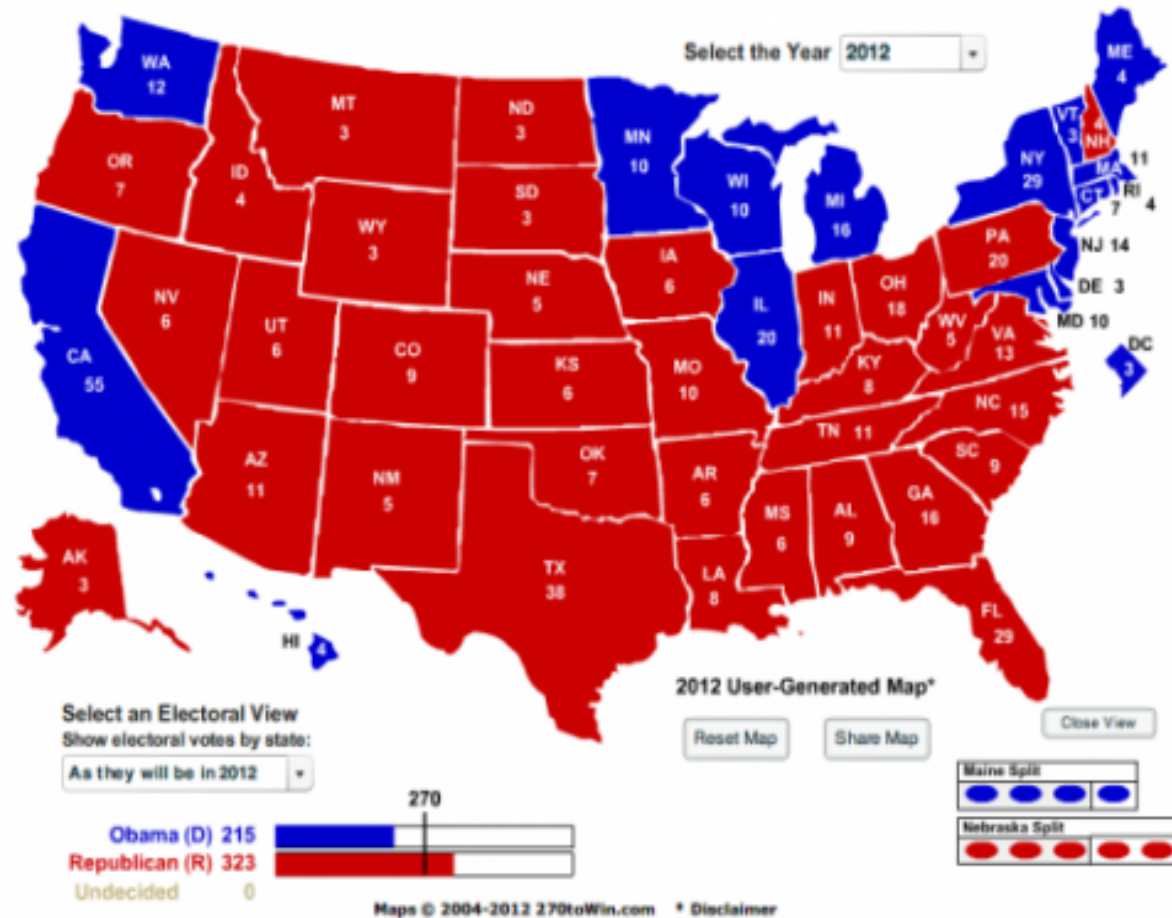


Collaborative Planning, Forecasting, and Replenishment

- ▶ Coordinate SC members through point-of-sale (POS) data sharing & joint planning
- ▶ Any data collected shared with all members of SC
- ▶ **CPFR** ensures that inventory & sales data is shared across the supply chain
 - So that everyone knows the exact sales and inventory levels
- ▶ Costs for each partner are shared or minimized



Chapter 11 Enterprise Systems



Customer Relationship Management

▶ CRM

- Consists of the processes a company uses to track and organize its contacts with customers
- ▶ Main goal of a CRM system
 - Improve services offered
 - Use customer contact information in marketing
- ▶ Marketing strategies in CRM
 - Focus on long-term relationship instead of transactions

CRM cases

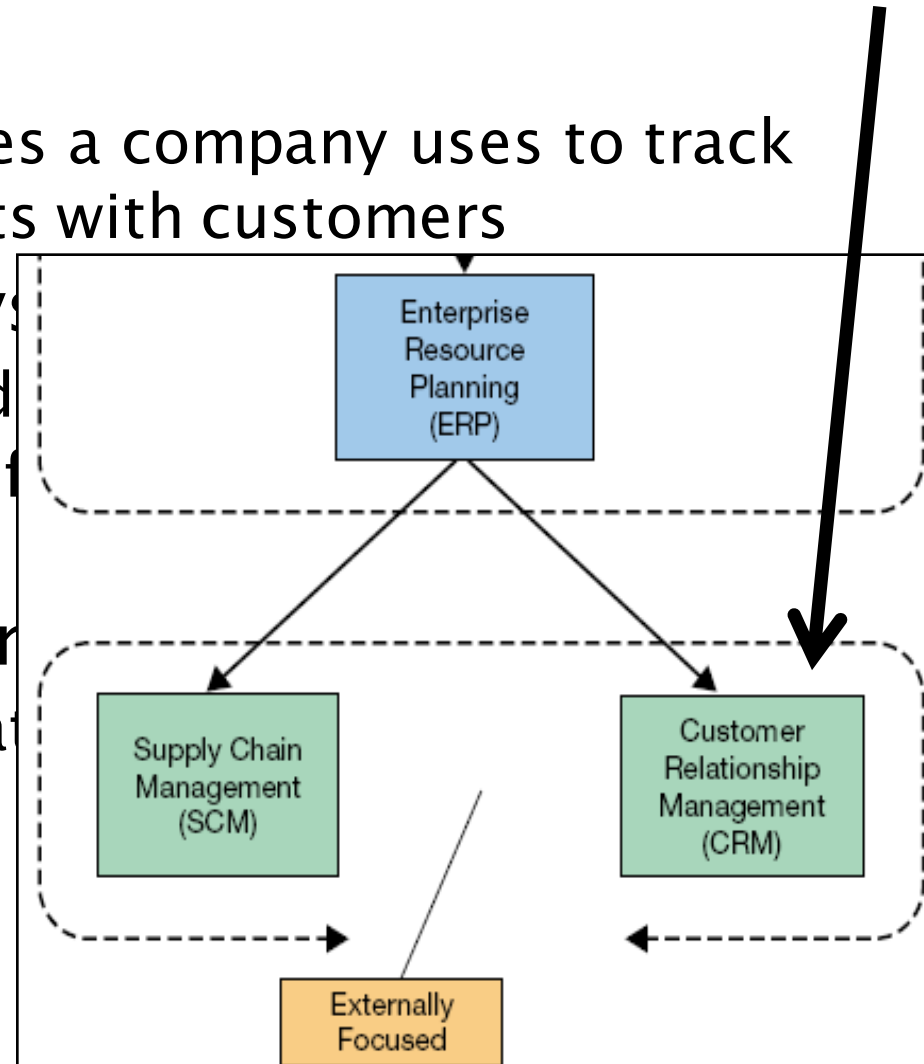


Figure 7.8 ➡ Stages of enterprise systems evolution.

Customer Relationship Management (cont'd.)

- ▶ Identifies segments of customers
- ▶ Improves products and services to meet customers' needs
- ▶ Improves customer retention
- ▶ Identifies a company's most profitable (and loyal) customers
- ▶ Helps organizations make better use of data, information, and knowledge to understand customers

Customer Relationship Management (cont'd.)

- ▶ Gives organizations more complete pictures of their customers
 - Integrates demographic and other external data with customers' transaction data to better understand customer behavior

Customer Relationship Management (cont'd.)

- ▶ CRM systems include:
 - Sales automation
 - Order processing
 - Marketing automation
 - Customer support
 - Knowledge management
 - Personalization technology

Personalization Technology

▶ Personalization

- Satisfies customers' needs, builds customer relationships, and increases profits
- Designs goods and services that meet customers' preferences better



▶ Customization

- Allows customers to modify the standard offering
 - Such as selecting a different home page to be displayed each time you open your Web browser



▶ Collaborative filtering (CF)

- Searches for specific information or patterns, using input from multiple business partners and data sources



Knowledge Management

- ▶ Knowledge is an asset
- ▶ Knowledge is more than information and data
 - Also contextual
- ▶ Knowledge repository
 - Stores knowledge of experts
- ▶ Motivates employees to share knowledge
 - Offer reward
- ▶ Other tools and technologies include:
 - Groupware , DBMSs, data-mining tools, decision support systems

Knowledge Management (cont'd.)

- ▶ Knowledge management system should help an organization to:
 - Promote innovation by encouraging free exchange of ideas
 - Improve customer service by reducing response time
 - Increase revenue by reducing the delivery time for products and services
 - Improve employee retention rates by rewarding employees for their knowledge

Summary

- ▶ Enterprise systems
- ▶ Supply chain management (SCM)
 - Technology
- ▶ Customer relationship management (CRM)
 - Personalization
 - Customization
- ▶ Knowledge management and enterprise resource planning (ERP)