Electronic Business Systems

O’Brien  Chapter Five
Objectives

- **Cross-functional e-business systems**
  - *Provide significant business value to company, its customers & partners*
  - Examples
    - Enterprise resource planning (ERP)
    - Customer relationship management (CRM)
    - Supply chain management (SCM)
  - Integrated Systems
  - Online transaction processing
  - Enterprise collaboration

- **How Internet & other technologies support business processes**
Case 1: Hilton Hotels Corporation
Data-Driven Hospitality

- OnQ the IT piece of a “customers really matter” strategy
- Goal to
  - Build customer loyalty
  - More revenue per visit
- Customer profiles
Case Study Questions

1. What are the benefits and drawbacks of the OnQ system at Hilton?

2. What does Hilton have to do to create a competitive advantage through OnQ? Provide some specific examples.

3. Is it possible to have too much information about a customer? Explain.
Major E-Business Applications

Electronic Business Applications

Telecommunications Networks

Intranets Extranets The Internet

Enterprise Communication Coordination & Collaboration

Electronic Commerce

Internal Business Systems

Front End Back End
Cross-functional Systems

- Cross the boundaries of traditional business functions
- In order to reengineer and improve vital business processes all across the enterprise

*New Product Development Process*
Customer Relationship Management (CRM)

- CRM uses technology to
  - Create a cross-functional enterprise system
  - That integrates and automates many of the processes in sales, marketing & customer service that interact with customers
  - Create a framework of web-enabled software & databases that integrate these processes with the rest of the company’s processes
Customer Relationship Management

CRM Uses IT to Create a Cross-Functional Enterprise System

- Marketing and Fulfillment
- Customer Service and Support
- Sales
  - Cross-Sell
  - Up-Sell
- Contact and Account Management
- Retention and Loyalty Programs

Prospect or Employee

Fax  e-Mail
Telephone  Web

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CRM applications

➢ Contract and Account Management
  ▪ Helps sales, marketing & service professionals
  ▪ Capture & track data about past/planned contacts with customers/prospects

➢ Sales
  ▪ Provides sales reps with software tools & data they need to support & manage sales activities
  ▪ Cross-selling is trying to sell a customer of one product with a related product
  ▪ Up-selling is trying to sell customer a better product than they are currently seeking
CRM applications

- Marketing and Fulfillment
  - Help marketing professionals accomplish direct marketing campaigns by tasks such as
  - Qualifying leads for targeted marketing & scheduling & tracking direct marketing mailings
CRM applications

- **Customer Service and Support**
  - Provides sales reps with software tools & database access to customer database shared by sales & marketing professions
  - Helps create, assign and manage requests for service
  - Call center software routes calls to customer support agents based upon their skills and type of call
  - Help desk software provides relevant service data & suggestions for resolving problems for customer service reps helping customers with problems
CRM applications

- Retention and Loyalty Programs
  - Try to help a company identify, reward, & market to their most loyal and profitable customers
  - Data mining tools & analytical software
  - Customer data warehouse
CRM: The Business Focus

Supports integrated & collaborative relationship between a business & its customers

Customer Life Cycle

Acquire

Enhance

Retain

CRM Functional Solutions

Direct Marketing

Cross-sell and Up-sell

Proactive Service

Sales Force Automation

Customer Support

The Internet

Shared Customer Data

Collaborative Service

Partner

Company

Customer

CRM Integrated Solution
Benefits & Challenges of CRM

CRM Benefits
- Identify and target the best customers
- Customization & personalization of products & services
- Track customer contacts
- Provide consistent customer experience & superior service/support

CRM failures
- 50% of applications fail to meet expectations
- 20% of the time CRM damaged customer relationships
- Lack of understanding & preparation is blamed
Enterprise Resource Planning (ERP)

- Cross-functional enterprise system
  - with an integrated suite of software modules
  - that support the basic internal business processes of a company
Enterprise Resource Planning

- Production Planning
- Integrated Logistics
- Sales Distribution, Order Management
- Accounting and Finance
- Human Resources
- Customer/Employee

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Benefits of ERP

- Quality and Efficiency
- Decreased Costs
- Decision Support
- Enterprise Agility
Costs of implementing a new ERP

- Reengineering: 43%
- Hardware: 12%
- Software: 15%
- Training and Change Management: 15%
- Data Conversions: 15%

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Failures in ERP Do Exist

- SAP AG’s Software Installation Problems of ERP Integrated Suite into a Retail Environment
- Jo-Ann Stores and Petsmart Blamed Software for Poor Financial Performance
- Sobey’s Grocer Had Problems with Number of Transactions
- Sobey’s is Replacing System
Causes of ERP Failures

- Underestimating complexity of planning, development & training needed
- Failure to involve affected employees
- Trying to do too much too fast
- Insufficient training in new work tasks
- Failure to do enough data conversion & testing
- Over reliance by company on claims of ERP vendors or consultants
Supply Chain Management (SCM)

- A cross-functional interenterprise system
- To help support and manage the links between a company’s key business processes
- And those of its suppliers, customers & business partners
Supply Chain Management

Supply Chain Life Cycle
- Commit
- Schedule
- Make
- Deliver

SCM Functional Processes
- Order Commitment
- Demand Planning
- Manufacturing Planning
- Advance Scheduling
- Transportation Planning
- Distribution Planning

SCM Integrated Solution

Internetworked Supply Chain Management
Supply Chain Management

- SCM – A top strategic objective for many firms
- The right products
- The right place
- The right time
- In the proper quantity
- At an acceptable cost
Role of SCM

SCM Software Helps Firms Reengineer and Integrate The Functional SCM Processes

Supply Chain Life Cycle
- Commit
- Schedule
- Make
- Deliver

SCM Functional Processes
- Strategic Sourcing and Procurement
- Forecast and Demand Planning
- Customer Order Fulfillment Service
- Distribution Network and Warehouse Operations
- Production Logistics
- Transportation and Shipment Management

The Internet
- Shared Market Data
- Collaborative Fulfillment

SCM Integrated Solution
- Supplier
- Manufacturer
- Retailer
- Customer
SCM goal

- Fast, efficient, low-cost network of business relationships or supply chain to get a company’s products from concept to market

- A supply chain:
  - Interrelationships with suppliers, customers, distributors, and other businesses that are needed to design, build and sell a product
Causes of problems in SCM

- Lack of proper demand-planning knowledge, tools & guidelines
- Inaccurate or overoptimistic demand forecasts
- Inaccurate production, inventory & other data
- Lack of adequate collaboration within the company & between partners
- SCM software considered immature, incomplete & hard to implement
Cross-Functional Integrated Systems

EAI Software Connects Major e-Business Applications
Like CRM and ERP

Enterprise Application Cluster

Front Office Applications
- CRM Application
  - Customer Service
  - Field Service
  - Sales Order
  - Product Config

Enterprise Application Integration

Back Office Applications
- ERP Application
  - Distribution
  - Manufacturing
  - Scheduling
  - Finance

Customers  
Suppliers  
Business Partners
Survey of 75 related companies revealed 18 different software packages
Lack of integration reduces cost and speed savings that might be realized
Use of webmethods EAI to coordinate processes
New system generated cost savings
Orders for product automatically orders parts
How EAI works:

1. An order comes in via the call center, mail, e-mail, the Web, or fax.

2. Customer information captured in the order process is sent to a “new customer” process, which distributes the new customer information to multiple applications and databases.

3. Once the order is validated (customer, credit, items), relevant details are sent to order fulfillment—which may pick the requested items from inventory, schedule them for manufacture, or simply forward them.

4. Fulfillment returns status and shipment info to the order-entry system...

5. ...and to the call center, which needs to know about outstanding orders.
Enterprise Application Integration (EAI)

- EAI connects cross-functional systems
- Serves as middleware to
  - Provide data conversion
  - Communication between systems
  - Access to system interfaces