Hot Issues of Information Management
Achieving Operational Excellence and Customer Intimacy – Enterprise Application: Summit and SAP (Chap. 9)

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2017-12-14; 2017-12-21
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Management Information Systems:
Managing the Digital Firm

1. Organization, Management, and the Networked Enterprise
2. Information Technology Infrastructure
3. Key System Applications for the Digital Age
4. Building and Managing Systems

Chap. 9
Achieving Operational Excellence and Customer Intimacy – Enterprise Application: Summit and SAP
Case Study:
Summit and SAP (Chap. 9) (pp. 396-398)

Summit Electric Lights Up with a New ERP System

1. Which business processes are the most important at Summit Electric Supply? Why?
2. What problems did Summit have with its old systems? What was the business impact of those problems?
3. How did Summit’s ERP system improve operational efficiency and decision making? Give several examples.
4. Describe two ways in which Summit’s customers benefit from the new ERP system.
5. Diagram Summit’s old and new process for handling chargebacks.

Overview of Fundamental MIS Concepts

Business Challenges

Management
Organization
Technology

Information System

Business Solutions

Business Model

1. Customer Segments
2. Value Proposition
3. Channels
4. Customer Relationships
5. Revenue Streams
6. Key Resources
7. Key Activities
8. Key Partners
9. Cost Structure

Definition of Business Model

A business model describes the rationale of how an organization creates, delivers, and captures value.

Definition of Business Strategy

A business strategy is a long term plan of action designed to achieve a particular goal or set of goals or objectives.

Source: (Ostenwalder, Pigneur and Tucci, 2005)
Objectives
Business Objectives
Strategic Business Objectives of Information Systems
Strategic Business Objectives of Information Systems

1. Operational Excellence
2. New Products, Services and Business Models
3. Customer and Supplier Intimacy
4. Improved Decision Making
5. Competitive Advantage
6. Survival

Chap. 9
Achieving Operational Excellence and Customer Intimacy – Enterprise Application

The Interdependence Between Organizations and Information Technology

Business Processes

• Business processes:
  – the set of logically related tasks and behaviors that organizations develop over time to produce specific business results and the unique manner in which these activities are organized and coordinated.

• Business processes:
  – the manner in which work is organized, coordinated, and focused to produce a valuable product or service.

• Business processes are the collection of activities required to produce a product or service.
Enterprise Systems

• Enterprise resource planning (ERP) systems
• Suite of integrated software modules and a common central database
• Collects data from many divisions of firm for use in nearly all of firm’s internal business activities
• Information entered in one process is immediately available for other processes
Enterprise Software

• Built around thousands of predefined business processes that reflect best practices
  – Finance and accounting: General ledger, accounts payable, etc.
  – Human resources: Personnel administration, payroll, etc.
  – Manufacturing and production: Purchasing, shipping, etc.
  – Sales and marketing: Order processing, billing, sales planning, etc.

• To implement, firms:
  – Select functions of system they wish to use
  – Map business processes to software processes
    • Use software’s configuration tables for customizing

How Enterprise Systems Work

Business Value of Enterprise Systems

• Increase operational efficiency
• Provide firm-wide information to support decision making
• Enable rapid responses to customer requests for information or products
• Include analytical tools to evaluate overall organizational performance

Supply Chain Management Systems

• Supply Chain
  – Network of organizations and processes for:
    • Procuring materials, transforming them into products, and distributing the products
  – Upstream supply chain:
    • Firm’s suppliers, suppliers’ suppliers, processes for managing relationships with them
  – Downstream supply chain:
    • Organizations and processes responsible for delivering products to customers
  – Internal supply chain

Supply Chain Management Systems: Nike’s Supply Chain

Supply Chain Management Systems

• Supply Chain Management (SCM)
  – Inefficiencies cut into a company’s operating costs
    • Can waste up to 25% of operating expenses
  – Just-in-time strategy:
    • Components arrive as they are needed
    • Finished goods shipped after leaving assembly line
  – Safety stock: Buffer for lack of flexibility in supply chain
  – Bullwhip effect
    • Information about product demand gets distorted as it passes from one entity to next across supply chain

Supply Chain Management Systems: The Bullwhip Effect

Supply Chain Management Software

• Supply chain planning systems
  – Model existing supply chain
  – Enable demand planning
  – Optimize sourcing, manufacturing plans
  – Establish inventory levels
  – Identify transportation modes

• Supply chain execution systems
  – Manage flow of products through distribution centers and warehouses

Global Supply Chain Issues

• Greater geographical distances
• Greater time differences
• Participants from different countries
  – Different performance standards
  – Different legal requirements

Internet Helps Manage Global Complexities

• Warehouse management
• Transportation management
• Logistics
• Outsourcing

Supply Chain Management

- **Push-based model (build-to-stock)**
  - Earlier SCM systems
  - Schedules based on best guesses of demand
- **Pull-based model (demand-driven)**
  - Web-based
  - Customer orders trigger events in supply chain
- **Internet enables move from sequential supply chains to concurrent supply chains**
  - Complex networks of suppliers can adjust immediately

Push- Versus Pull-Based Supply Chain Models

**Push-Based Model**
- Supplier
  - Supply to forecast
- Manufacturer
  - Production based on forecasts
- Distributor
  - Inventory based on forecasts
- Retailer
  - Stock based on forecasts
- Customer
  - Purchase what is on shelves

**Pull-Based Model**
- Supplier
  - Supply to order
- Manufacturer
  - Produce to order
- Distributor
  - Automatically replenish warehouse
- Retailer
  - Automatically replenish stock
- Customer
  - Customer orders

The Future Internet-Driven Supply Chain

Business Value of SCM Systems

• Match supply to demand; reduce inventory levels
• Improve delivery service
• Speed product time to market
• Use assets more effectively
• Reduced supply chain costs lead to increased profitability
  – Total supply chain costs can be 75% of operating budget
• Increase sales

Customer Relationship Management Systems

- Customer relationship management (CRM)
  - Knowing the customer
  - In large businesses, too many customers and too many ways customers interact with firm

- CRM systems:
  - Capture and integrate customer data from all over the organization
  - Consolidate and analyze customer data
  - Distribute customer information to various systems and customer touch points across enterprise
  - Provide single enterprise view of customers

Customer Relationship Management (CRM)

- **Sales**
  - Telephone sales
  - Web sales
  - Retail store sales
  - Field sales

- **Marketing**
  - Campaign data
  - Content
  - Data analysis

- **Service**
  - Call center data
  - Web self-service data
  - Wireless data

CRM Software

• Packages range from niche tools to large-scale enterprise applications.

• More comprehensive have modules for:
  – Partner relationship management (PRM)
    • Integrating lead generation, pricing, promotions, order configurations, and availability
    • Tools to assess partners’ performances
  – Employee relationship management (ERM)
    • Setting objectives, employee performance management, performance-based compensation, employee training
CRM packages typically include tools for

• Sales force automation (SFA)
  – Sales prospect and contact information, sales quote generation capabilities

• Customer service
  – Assigning and managing customer service requests, Web-based self-service capabilities

• Marketing
  – Capturing prospect and customer data, scheduling and tracking direct-marketing mailings or e-mail, cross-selling

How CRM Systems Support Marketing

Responses by Channel for January 2013 Promotional Campaign

Customer Loyalty Management Process Map

1. Receive service request
2. Obtain customer information
3. Customer information available?
   - Yes: Score customer
     - High value and loyalty?
       - Yes: Provide special offers and service
       - No: Route to best agent
3. No: Resolve service issue

Customer Relationship Management Systems

• Operational CRM:
  – Customer-facing applications such as sales force automation, call center and customer service support, and marketing automation

• Analytical CRM:
  – Based on data warehouses populated by operational CRM systems and customer touch points
  – Analyzes customer data (OLAP, data mining, etc.)
    • Customer lifetime value (CLTV)

Analytical CRM Data Warehouse

Channels
- Call center
- Web site
- Wireless
- Field sales
- Direct mail
- E-mail
- Retail store
- Partner

Other sources
- Legacy systems
- Demographic data
- Third-party data
- Marketing campaign data

Customer data
- OLAP
- Data mining
- Other data analysis tools

Customer data warehouse
- Profitable customers
- Market segments
- Customer profiles
- Churn rates

Business Value of CRM Systems

- Increased customer satisfaction
- Reduced direct-marketing costs
- More effective marketing
- Lower costs for customer acquisition/retention
- Increased sales revenue

Churn Rate

• Number of customers who stop using or purchasing products or services from a company

• Indicator of growth or decline of firm’s customer base

Enterprise Applications: New Opportunities and Challenges

• Enterprise application challenges
  – Highly expensive to purchase and implement enterprise applications
    • Average “large” system—$12 million +
    • Average “small/midsize” system—$3.5 million
  – Technology changes
  – Business process changes
  – Organizational learning, changes
  – Switching costs, dependence on software vendors
  – Data standardization, management, cleansing

Next-Generation Enterprise Applications

• Enterprise solutions/suites:
  – Make applications more flexible, Web-enabled, integrated with other systems

• SOA standards

• Open-source applications

• On-demand solutions

• Cloud-based versions

• Functionality for mobile platform

Next-Generation Enterprise Applications

• **Social CRM**
  – Incorporating social networking technologies
  – Company social networks
  – Customer interaction via Facebook
  – For example: Buzzient platform integrates social media with enterprise applications

• **Business intelligence**
  – Inclusion of BI with enterprise applications
  – Flexible reporting, ad hoc analysis, “what-if” scenarios, digital dashboards, data visualization

Case Study:

E-commerce: Zagat (Chap. 10) (pp.443-445)

To Pay or Not to Pay: Zagat’s Dilemma

1. Evaluate Zagat using the competitive forces and value chain models.
2. Compare Zagat’s and Yelp’s e-commerce business models. How have those models affected each company's Web strategy?
3. Why was Zagat’s content well suited for the Web and for the mobile digital platform?
4. Do you think Zagat’s decision to use a pay wall for its Web site was a mistake? Why or why not?
5. Will Zagat’s acquisition by Google make it more competitive? Explain your answer.

資訊管理專題
(Hot Issues of Information Management)

1. 請同學於資訊管理專題個案討論前
   應詳細研讀個案，並思考個案研究問題。

2. 請同學於上課前複習相關資訊管理相關理論，
   以作為個案分析及擬定管理對策的依據。

3. 請同學於上課前
   先繳交資訊管理專題個案研究問題書面報告。

4. 上課時間地點：
   週四 7,8 (14:10-16:00) B702
References


– Kenneth C. Laudon & Jane P. Laudon原著，游張松主編，陳文生翻譯 (2014)，資訊管理系統，第13版，滄海