Achieving Operational Excellence and Customer Intimacy: Enterprise Applications


Learning Objectives

- Evaluate how enterprise systems help businesses achieve operational excellence.
- Describe how supply chain management systems coordinate planning, production, and logistics with suppliers.
- Explain how customers relationship management systems help firms achieve customer intimacy.
- Identify the challenges posed by enterprise applications.
- Describe how enterprise applications are used in platforms for new cross-functional services.

Enterprise Systems (1/4)

- Enterprise Systems
  - Aka 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 Systems (2/4)

- Enterprise Software
  - Built around thousands of predefined business processes that reflect best practices
    - Finance/accounting: General ledger, accounts payable, etc.
    - Human resources: Personnel administration, payroll, etc.
    - Manufacturing/production: Purchasing, shipping, etc.
    - Sales/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
Business Value of Enterprise Systems
- Increase operational efficiency
- Provide firmwide information to support decision making
- Enable rapid responses to customer requests for information or products
- Include analytical tools to evaluate overall organizational performance

How Enterprise Systems Work
Enterprise systems feature a set of integrated software modules and a central database that enables data to be shared by many different business processes and functional areas throughout the enterprise.

Supply Chain Management Systems
- The supply chain
  - Network of organizations and processes for:
    - Procuring raw materials
    - Transforming them into products
    - 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

Nike’s Supply Chain
This figure illustrates the major entities in Nike’s supply chain and the flow of information upstream and downstream to coordinate the activities involved in buying, making, and moving a product. Shown here is a simplified supply chain, with the upstream portion focusing only on the suppliers for sneakers and sneaker soles.
Information and supply chain management
- 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
- Supply chain management systems
  - Supply chain planning systems
    - Model existing supply chain
    - Demand planning
    - Optimize sourcing, manufacturing plans
    - Establish inventory levels
    - Identifying transportation modes
  - Supply chain execution systems
    - Manage flow of products through distribution centers and warehouses

The Bullwhip Effect
- Inaccurate information can cause minor fluctuations in demand for a product to be amplified as one moves further back in the supply chain. Minor fluctuations in retail sales for a product can create excess inventory for distributors, manufacturers, and suppliers.
Intranets and Extranets for Supply Chain Management

Intranets integrate information from isolated business processes within the firm to help manage its internal supply chain. Access to these private intranets can also be extended to authorized suppliers, distributors, logistics services, and, sometimes, to retail customers to improve coordination of external supply chain processes.

Global supply chains and the Internet (2/7)

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Global supply chains and the Internet (3/7)

- Global supply chain issues
  - Global supply chains typically span greater geographic distances and time differences
  - More complex pricing issues (local taxes, transportation, etc.)
  - Foreign government regulations
- Internet helps companies manage many aspects of global supply chains
  - Sourcing, transportation, communications, international finance

Global supply chains and the Internet (4/7)

- Demand-driven supply chains
  - Push-based model (build-to-stock)
    - Schedules based on best guesses of demand
  - Pull-based model (demand-driven)
    - Customer orders trigger events in supply chain
- Sequential supply chains
  - Information and materials flow sequentially from company to company
- Concurrent supply chains
  - Information flows in many directions simultaneously among members of a supply chain network

Global supply chains and the Internet (5/7)

Push- Versus Pull-Based Supply Chain Models

The difference between push- and pull-based models is summarized by the slogan: "Make what we sell, not sell what we make."
Global supply chains and the Internet (6/7)

Business Value of Supply Chain Management Systems

- Match supply to demand
- Reduce inventory levels
- Improve delivery service
- Speed product time to market
- Use assets more effectively
- Reduced supply chain costs
- Increased sales

Customer Relationship Management Systems (1/5)

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

Global supply chains and the Internet (7/7)

The Future Internet-Driven Supply Chain

The future Internet-driven supply chain operates like a digital logistics nervous system. It provides multidirectional communication among firms, networks of firms, and e-marketplaces so that entire networks of supply chain partners can immediately adjust inventories, orders, and capacities.

Customer Relationship Management Systems (2/5)

Customer Relationship Management (CRM)

CRM systems examine customers from a multifaceted perspective. These systems use a set of integrated applications to address all aspects of the customer relationship, including customer service, sales, and marketing.

Figure 9-6

Figure 9-7
Customer Relationship Management Systems (3/5)

- CRM software packages
  - More comprehensive packages have modules for:
    - Partner relationship management (PRM)
    - Employee relationship management (ERM)
  - Most packages have modules for
    - Sales force automation (SFA): Sales prospect and contact information, and sales quote generation capabilities; etc.
    - Customer service: Assigning and managing customer service requests; Web-based self-service capabilities; etc.
    - Marketing: Capturing prospect and customer data, scheduling and tracking direct-marketing mailings or e-mail; etc.

Customer Relationship Management Systems (4/5)

- **CRM Software Capabilities**

  - **Customer Data**
    - Sales
    - Marketing
    - Service
  - **Account Management**
  - **Lead Management**
  - **Order Management**
  - **Sales Planning**
  - **Field Sales**
  - **Sales Analytics**
  - **Campaign Management**
  - **Product Projections Management**
  - **Events Management**
  - **Returns Management**
  - **Market Planning**
  - **Marketing Operations**
  - **Marketing Analytics**
  - **Service Deligence**
  - **Customer Relationship Management**
  - **Customer Service**

Customer Relationship Management Systems (5/5)

Customer Loyalty Management Process Map

- **Customer database**
- **Receive service request**
- **Obtain customer information**
- **Score customer**
- **High value and loyalty?**
- **Yes**
- **Provide special offers and service**
- **No**
- **Route to best agent**
- **Resolve service issue**

Operational and Analytical CRM (1/3)

- **Operational CRM:**
  - Customer-facing applications such as sales force automation, call center and customer service support, and marketing automation
- **Analytical CRM:**
  - Analyze customer data output from operational CRM applications
  - Based on data warehouses populated by operational CRM systems and customer touch points
  - Customer lifetime value (CLTV)
Operational and Analytical CRM (2/3)

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

Figure 9-11 Analytical CRM uses a customer data warehouse and tools to analyze customer data collected from the firm’s customer touch points and from other sources.

Operational and Analytical CRM (3/3)

- Business value of customer relationship management
  - Increased customer satisfaction
  - Reduced direct-marketing costs
  - More effective marketing
  - Lower costs for customer acquisition/retention
  - Increased sales revenue
  - Reduced churn rate
  - **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 (1/3)

- **Enterprise application challenges**
  - Highly expensive to purchase and implement enterprise applications – total cost may be 4 to 5 times the price of software
  - Requires fundamental changes
    - Technology changes
    - Business processes changes
    - Organizational changes
  - Incurs switching costs, dependence on software vendors
  - Requires data standardization, management, cleansing

Enterprise Applications: New Opportunities and Challenges (2/3)

- **Next generation enterprise applications**
  - **Enterprise solutions / suites:**
    - Replacing stand-alone enterprise, CRM, SCM systems
    - Make these applications more flexible, Web-enabled, integrated with other systems
  - **Open-source and on-demand applications**
    - SaaS, Salesforce.com
  - **Service platform:** Integrates multiple applications to deliver a seamless experience for all parties
    - Order-to-cash process
  - **Portals:**
    - Increasingly, new services delivered through portals
Order-to-Cash Service

Order-to-Cash is a composite process that integrates data from individual enterprise systems and legacy financial applications. The process must be modeled and translated into a software system using application integration tools.

Figure 9-12