Chapter 7 - Enhancing Business Processes Using Enterprise Information Systems

Enterprise systems integrate business activities across the organization and with business partners
Chapter 7 Learning Objectives

Core Business Processes and Organizational Value Chains
• Explain core business processes that are common in organizations.

Enterprise Systems
• Describe what enterprise systems are and how they have evolved.

Enterprise Resource Planning
• Describe enterprise resource planning systems and how they help to improve internal business processes.

The Formula for Enterprise System Success
• Understand and utilize the keys to successfully implementing enterprise systems.
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Scenario

• You work for a mid-sized manufacturer of supplies for white boards.
• Working in groups of 3...each of you will take responsibility for:
  – Inbound Logistics/Procurement
  – Operations/Manufacturing
  – Outbound logistics/Order Fulfillment
• What information do you need to make your team efficient and effective?
Scenario (cont.)

• What types of information needs to flow from one team to the next to make the organization efficient and effective?

• How do we facilitate this flow of information from one system to the next?
Scenario (cont.)

• What type of information flows between teams within your organization & what type of information flows between your organization and your business partners (suppliers & customers)?
Core Business Processes

• Traditional business functions:
  – Marketing and sales
  – Supply chain management
  – Accounting and finance
  – Human resources

• Not distinct independent silos, but instead highly interrelated

• Business processes cross boundaries of business functions.
Break the class up into 4 groups

- Marketing and Sales
- Supply Chain Management
- Accounting and Finance
- Human Resources
Order-to-Cash Process

- The processes associated with selling a product or service
Procure-to-Pay Process

- The processes associated with procuring goods from external vendors
Make-to-Stock / Make-to-Order Process

• The processes associated with producing goods

Who has worked at a place that used Make-to-Stock?

Who has worked at a place that used Make-to-Order?
Supply Chain

- Core business processes enable the creation of supply chains.
- Resembles a river
  - Start at source
  - Move downstream
Value Chain

• Value Chain—The set of business activities that add value to the end product.
• Information flows through a set of business activities.
  – Core activities—functional areas that process inputs and produce outputs.
  – Support activities—enable core activities to take place.
Value Chain Framework

- Core
  - Inbound Logistics
  - Operations and Manufacturing
  - Outbound Logistics
  - Marketing and Sales
  - Customer Service

- Support
  - Administration
    - Firm Infrastructure
    - Human Resources
    - Technology Development
    - Procurement
Externally Focused Applications—Value System

- Coordination of organizational value chains
- Information Flows in a Value System
  - Upstream information flow—information received from another company
  - Downstream information flow—information produced by a company and sent to another organization
Enterprise Systems

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The Rise of Enterprise Systems

- **Stand-alone applications**
  - Not designed to communicate with other system
  - Variety of computing hardware platforms
  - Enable departments to conduct daily business activities
  - Not helpful for other areas in the firm

- **Proprietary systems**
  - From vendors
  - Not designed to share with other vendors’ systems
  - Problem of knitting together (hodgepodge portfolio of discordant proprietary applications)
  - Lack of integration
Legacy Systems

• Each department has its own system.

  o Infrastructure specific

  o Inefficient processes

  o Potential for inaccuracies

  o Too many “rocks in the river”
Enterprise System Approach

• Integrated suite of business applications for virtually every department, process, and industry
ERP Challenges

• What are some of the challenges with implementing an ERP?

• Why would a company want to do this?

• Who might resist? Why?
Enterprise Resource Planning

• Who are the largest and most influential ERP vendors?
Supporting Business Processes

• Internally focused systems
Supporting Business Processes

• Externally focused systems (interorganizational systems)
Modules of Enterprise Systems

- Each module in an enterprise system replaces a stand-alone legacy system.
Vanilla Versus Customized Software

• **Vanilla version**
  – This version contains features and modules that an enterprise system comes with out of the box.
  – Certain processes might not be supported.

• **Customization**
  – This version contains additional software or changes to vanilla version.
  – It always needs to be updated with new versions of vanilla.
## Capabilities of SAP’s ERP System

<table>
<thead>
<tr>
<th>Capability</th>
<th>Explanation</th>
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<tbody>
<tr>
<td>Financials</td>
<td>Allows organizations to manage corporate finance functions by automating financial supply chain management, financial accounting, and management accounting</td>
</tr>
<tr>
<td>Human capital management</td>
<td>Gives organizations the tools needed to maximize the profitability potential of the workforce, with functionality for employee transaction management and employee life cycle management</td>
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<tr>
<td>Operations</td>
<td>Empowers organizations to streamline operations with integrated functionality for managing end-to-end logistics processes while expanding collaborative capabilities in supply chain management, product life cycle management, and supplier relationship management</td>
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<tr>
<td>Corporate services</td>
<td>Allows organizations to optimize centralized and decentralized services for managing real estate, corporate travel, and incentives and commissions</td>
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Best Practices-Based Software

• Most ERP vendors build best practices into their ERP systems.
  – Identify business processes in need of change
  – Future updates are smoother if businesses change their business processes to fit with ERP systems.

• Is following the best practices always the best strategy?
  – If companies have competitive advantage from unique business processes, forcing best practices may actually hurt.
Enterprise Resource Planning

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Enterprise Resource Planning (ERP) Systems

- Enterprise Resource Planning—Applications that integrate business activities across departmental boundaries.
- ERP evolved during the 1990s from material/manufacturing requirements planning packages.
- Emphasis has since shifted from “resources” and “planning” to “enterprise.”
- Integrate legacy information on a company-wide basis
Integrating Data to Integrate Applications

- Central information repository
  - ERP replaces stand-alone applications
  - Modules based on
    - Common database
    - Similar application interfaces
An ERP system can provide employees with relevant, up-to-date information.
Core and Extended ERP Components

- **Core components**—support primary internal activities.
- **Extended components**—support primary external activities.
ERP Core Components

• Financial Management
  – accounting, financial reporting, performance management, corporate governance

• Operations Management
  – simplify, standardize, and automate business processes for inbound/outbound logistics, product development, manufacturing, sales and service

• Human Resource Management
  – employee recruitment, assignment tracking, performance reviews, payroll, regulatory requirements
Human Resources Management
Order-to-Cash
Procure-to-Pay
Production
ERP Installation

• Configuration of the ERP systems is performed during any ERP implementation.
• System must be configured to reflect business processes and associated business rules.
• Organizations have to make countless decisions on how to configure thousands of database tables to fit the business’s needs.
• Organizations hire experienced business analysts or outside consultants to assist with implementation.
ERP Limitations

- ERP falls short in communicating across organizational boundaries.
- They tend to be not well suited for managing value system activities.
- Other systems can work with ERP to provide these capabilities.
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1. Secure executive sponsorship.
   – Most failures are due to lack of top-level management support.

2. Get help from outside experts.
   – Consultants are specifically trained.
   – Implementation tends to happen faster.

3. Thoroughly train users.
   – Training is the most overlooked, underestimated, and poorly budgeted expense.
   – Training can prevent dissatisfaction.

4. Take a multidisciplinary approach to implementations.
   – Include end users from all functional areas in the implementation.

5. Initiate evolving the ERP Architecture.