TIM 50 - Business Information Systems

Lecture 5

UC Santa Cruz
January 20, 2015

Class Announcements

For next time
- Read Cisco Case
- Laudon and Laudon Ch 9 "e-commerce: digital markets, digital goods"

Class Announcements

- Project proposals due on 1/29!!
  - 2-3 pages
  - Give a plan what you will cover in report
  - Cite some references, and show that you have started your research!
    - Remember references must be cited in the body of the text with footnotes or end notes.

Database Tutorials

- Oakes College 205

Essentials of Management Information Systems
Chapter 3 Achieving Competitive Advantage with Information Systems

- Businesses are collections of business processes—
  - Some times they are written in manuals, but in many cases business processes are informal.
  - To use IS effectively, you need to change business processes.
  - Before changing processes, you need to change people’s attitudes and behaviors, and even the organization itself.

- Business process management = continuous improvement
  - Identify processes for change.
  - Analyze existing processes.
  - Design new process.
  - Implement new process.
  - Measure new process.
Business Process Reengineering
- A radical form of fast change
- Not continuous improvement, but elimination of old processes, replacement with new processes, in a brief time period
- Can produce dramatic gains in productivity, but increases organizational resistance to change

Enterprise Applications

Applications
- **What is an application?**
  - Computer software that performs useful capabilities for a user, organization, incorporating storage, manipulation, and communication of information.
- **An organizational application**
  - Supports an organization
- **Often called enterprise application**
  - (An enterprise is an organization with a commercial mission)

Types of organizational applications
- **Departmental**
  - Supports a single functional department
  - Example: An accounts management application for an accounting department.
- **Enterprise**
  - Support enterprise-wide processes and goals.
  - Example: Coordinate information between functional departments involved in fulfilling an order (or other cross-functional process.)
### Some Types of Organizational Applications

- **Worker Collaboration**
  - Example: video conferencing

- **Operations and Logistics**
  - Example: coordinate movements of goods between sites.

- **Decision Support**
  - Summarize info for execs.

- **Knowledge Management**
  - Organize and retrieve knowledge in company’s documents and databases

### Examples

**Software Merchant**

- **Customer Relationship Management**
  - Maintain a case file of customer questions and complaints.
  - Website of Freq. Asked Ques. And documentation.
  - Chat application for customers to communicate with tech-support personnel.

**On-Line Stock Trading**

- Information Management application for paying customers
- Specialized software to interface with
  - customers
  - stock exchange
  - Customer’s bank

### Some more terms

- **Transaction Processing Systems** record and process data from business transactions.
- **Batch Processing** - transactions are accumulated over a period of time and processed periodically.

In **Online Transaction Processing (OLTP)**, transactions are processed immediately.

### Some More Terms

- A **workflow** application supports ongoing repetitive tasks.
- Example: An application that passes a case summary of a customer from customer service to tech support.

### So what exactly is ERP??
### Early MRP

- MRP (Material or Manufacturing Resource Planning)
  - Take:
    - Product Demand forecasts
    - Inventory Balances
    - Replenishment Lead Times
  - Develop a Production schedule for a single plant
  - At this Point, it is a planning tool

### Later on More capabilities added

- Order Processing
- Product Costing

The planning tool begins to take more and more of an active role in the business processes.

### A desire to Link Across Functional Departments of firm

- Each functional department had its own legacy application
  - Programmed in different languages
  - Different Data formats

- Often some data was shared between departments by duplicating it.

### MRP evolves into ERP

- A common software architecture with modules to support different business functions.
  - Accounting, finance, sales, HRM, material management, etc...

- Key features:
  - Multi-functional
  - Integrated
  - Modular

### ERP Overview

![ERP Overview Diagram]

### ERP

- How would you design an ERP?
- Design a user interface for each module
  - Ask user to fill in certain “fields” at particular times.
  - Set up a sequence of events
    - When the sales department enters an order, that event triggers an event at the manufacturing department.
- But by doing this, aren’t we presuming a particular business process?
Questions

How standardized are organizational processes?
- Customer service
- Finance
- Manufacturing

Fundamental options

- Customize the application to existing organization?
- Mold organization to off-the-shelf application?
- Is software a good way to propagate best practices?