Class Announcements

- Business Paper Proposal Due Feb 2, Tuesday!
- Assignment 2 due today.

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.

(Student Talks

Class Announcements

- Project proposals due in 1 week (Tuesday)!!
  - 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.
  - See website for more details.

(ISM 50 - Business Information Systems

Lecture 7

Guest Instructor: John Musacchio
Instructor: Ram Akella
UC Santa Cruz
Jan 26, 2010)
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.

Examples

- **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??
The precursor to ERP, 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 roll 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

- 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?

Fundamental options

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

Quiz

1) What does MRP and ERP stand for?

2) Cisco decided to get ERP software that was developed by:
   a) IBM  b) Oracle
   c) Microsoft  d) SAP

3) Cisco makes:
   a) Routers  b) Desktop computers
   c) Cell phones  d) Restaurant supplies

Cisco Case

Student Talk

Break into groups of 3 or 4

- Discuss
  - A) Was the project successful? Why or why not?
  - B) Imagine you were asked to lead an ERP deployment at another company. What ideas would you borrow from Cisco's ERP project?

- What factors worked in Cisco's favor that might not apply to other companies trying to do an ERP project?

- What mistakes would you avoid that Cisco made?
- Write your ideas down.

Cisco Summary

Success Factors
- Cross-Functional Team of top people
  - People from across the company involved
- Hungry Vendors
  - Oracle and KPMG needed this to succeed
- Strong Support from Top Management
- Favorable Hardware Contract
- Rapid Prototyping
- Aggressive pace
- Good management or luck?

Cisco Summary

Challenges
- Poor testing Strategy
- Inadequate Hardware
- Software required more modifications than originally hoped.
Cisco Summary

What did it cost?

Costs Beyond original budget:

Non-IT Personnel In Project
- 80 personnel X 8 months X 160 hours / month X $100 hour = $10 million

IT-Personnel beyond original 20
- 80 personnel X 4.5 months X 160 hours / month X $100 hour = $5.7 million

Actually cost more than 15 million more than the original budget of $15 million!

Was this really a success?