Class Agenda

- Homework 1 - Please turn in as your arrive!
- NPV Talk
- Lecture 3 Slides
- Student Talks - Joshua & Jamie
- Business Group Meeting
- Business Paper Requirements
What is a Business?

An organization that provides a product and/or a service that satisfies a need for which people are willing to pay money.

Makes money if revenues exceed costs.
Why Does a Company Need to Make a Profit?

- An obligation to owners/shareholders
  - Owners and shareholders have invested money and time. They expect to see something in return.

- Survival requires continued investments
  - new product development.
  - facilities and equipment.
  - acquiring other companies.
  - Invest in employees (training and salary increases)

- Stakeholders want to see performance before investing in a company’s future.
Recall: What is a System?

System Definition: A group of interrelated components working toward the attainment of a common goal by accepting inputs and producing outputs in an organized transformation process

• Input
• Processing
• Output

• Feedback
• Control
A business is an organizational system where economic resources (input) are transformed by various organizational processes (processing) into goods and services (output).
A Business is a System

Helps to remember and to tie together:

• Some business basics while remembering the importance of making a profit.
• The understanding of business functions.
• The appreciation for the importance of business processes.
Business as a system

A business is an organizational system where economic resources (input) are transformed by various organizational processes (processing) into goods and services (output).

Information systems provide information (feedback) on the operations of the system to management for the direction and maintenance of the system as it exchanges inputs and outputs within its environment.
Important Things to Understand

Two terms:

1) business functions

2) business processes

Will be frequently used throughout this course.

It would be a good idea to make absolutely sure that you know what they are.
**Business Functions**

**Function:** A group of people with related skills (specialized) seems to be a good starting point in understanding functions but this is a fairly loose definition.
Business Functions

Examples

- Design
- Engineering
- Sales
- Finance
- Marketing
- Etc...
What prompts the creation and justification of business functions?

- Specialization
- Size
- Efficiency
- More cost effective
What is a business process?

- A designed *succession of actions* to the accomplish of some result in a business.

Example

- Order Fulfillment
A Business Process

Customer
- Order
  - Take Order
  - Enter Order
    - Credit Check
      - Check Stock
        - Print Packing list
        - Find Goods
        - Ship
          - Print Invoice
            - Tell Mfg. to make order

Sales
Finance
Inventory Control
Warehousing

Business Functions
Cross Functional Process

- A business process that crosses over multiple functions
- Are all business processes cross functional?
A business process within a function

Example: Channel Selection Process within Marketing function

New Product idea

Conduct Focus Group Studies

Find sales by channel Data for similar products

Mine Demographic data

Combine information Make decision
Processes tend to be more simple at smaller organizations

Enrollment Process at a small, fictitious university...

Student

Universal Bureaucrat

• Fee Processing
• Financial Aid
• Housing
• Dinning
• Recreation Membership
• Health Insurance
• Class Registration
Processes tend to be more simple at smaller organizations

Enrollment Process at UCSC...
Similarly, at small companies

Example: Capital Equipment Purchase Business Process...
Big company

Capital Equipment Purchase
Business Process

Director -> manager

Director -> finance

Director -> accounting

IT Dept
So where do Information Systems Fit into this Story??

- Coordinates flow of information between functional departments carrying out a business process.
  - Increase Speed
  - Reduce Errors

- May reduce number of steps in a business process.

- May even allow new processes that would not have been feasible before...
Information System Roles

Competitive Advantage

Effectiveness

Efficiency
A few Information System Categories...

Information Systems

- Support of Business Operations
  - Operations Support Systems
    - Transaction Processing Systems
      - Processing Business Transactions
    - Process Control Systems
      - Control of Industrial Processes
    - Enterprise Collaboration Systems
      - Team and Workgroup Collaboration

- Management Support Systems
  - Management Information Systems
    - Prespecified Reporting for Managers
  - Decision Support Systems
    - Interactive Decision Support
  - Executive Information Systems
    - Information Tailored for Executives
Transaction Processing Systems

- Record and Process data resulting from business transactions
- Example: Credit card trans. processing
- 2 types
  - Real-time
  - Batch-Processing
An example: Process Control Systems

- Monitor and control physical processes

- Example:
An example decision support systems
What is Business Process Reengineering?

- A fundamental rethinking and redesign of business processes

- Minor improvement to a business process is often called streamlining the business process
Business Process Example

Customer

Sales

Finance

Inventory Control

Warehousing

Order

Take Order

Enter Order

Credit Check

Check Stock

Print Packing list

Find Goods

Ship

Tell Mfg. to make order

Print Invoice
A Streamlined Business Process

Business Functions:
- Customer
- Sales
- Finance
- Inventory Control
- Warehousing

Processes:
1. Order
   - Take Order
   - Enter Order
   - Credit Check
   - Automatic Credit Check
   - Check Stock
   - Print Invoice
   - Find Goods
   - Print Packing list
   - Ship
   - Tell Mfg. to make order
A Reengineered Business Process

Business Functions

- Customer
  - Order
    - On web
- Sales
- Finance
- Inventory Control
- Warehousing

Inform Mfg. to replenish stock

Automatic Credit Check
Automatic Checking of Stock

- Print Packing list
- And invoice

- Find Goods

- Ship
Role of Information Systems in Business Process Reengineering?

- IS often enables complicated business processes be made more simple.

- IS doesn’t always drive business process reengineering though...
Porter Competitive Model?

- **What is it?**
  - A model to help understand the competitive environment in which a company operates.

- **What are the “5 forces“?**
  - Intra-Industry Competition
  - Bargaining power of Suppliers
  - Bargaining power of Customers
  - Substitutes
  - Threat of New Entrants.
Porter Competitive Model
(Identify the Industry and the Specific Market Being Evaluated)

- Potential New Entrants
- Intra-Industry Rivalry
  - Strategic Business Unit
  - Bargaining Power of Buyers
  - Bargaining Power of Suppliers
- Substitute Products and Services
Intra-Industry Rivalry
SBU: UCSC
Rivals: UC campuses, CSU, Private universities, Community Colleges

Bargaining Power of Buyers
- Students
- Parents
- Businesses
- Employers
- Legislators

Potential New Entrants
- Foreign Universities
- Shift in Strategy by Universities or Companies

Bargaining Power of Suppliers
- Faculty
- Staff
- Equipment and Service Suppliers
- Alumni
- Foundations
- Governments
- IT Vendors

Substitute Products and Services
- Internet Distance Learning
- Books and Videotapes
- Computer-Based Training
- Company Education Programs

Porter Competitive Model
Education Industry – Universities
Porter Model in Business Paper

- You must include a Porter Model in your Business Paper
  - Figure
    - Make it look nice!
  - Narrative analysis of the five forces
    - Identify the industry.
    - Identify the major buyers, suppliers, potential new entrants, substitutes, and inta-industry rivals.
    - Discuss if and why these players put strong or weak competitive pressures on your business.
Example: Usefulness of Porter Model

Bob wants to start a dentist office
- However, Bob did not go to dental school
- Bob will hire the dentist and other staff
- Is this a good model?

No! Dentist has too much bargaining power, she could always go into business for herself.
Example: Usefulness of Porter Model

Suppose Alice, who is a dentist, opens an office

- **Suppliers**
  - Staff
  - Hygienists

- **Intra-industry rivals**
  - SBU: Alice’s Dentist Office
  - Other local dentist offices

- **New Entrants**
  - Dental School Graduates
  - Dentists moving in from other regions

- **Substitutes**
  - Alternative Medicine?

- **Buyers**
  - Public in general
  - Insurance companies
  - Those wanting cosmetic dentistry