ISM 50 - Business Information Systems

Lecture 4

Instructor: John Musacchio

UC Santa Cruz

October 5, 2010
Announcements

- **Office Hour Change**
  - John
    - E2 557 Tuesdays 4:15-5:15 and Wednesday 1-2pm

- Read Frito Lay case and cash flow handout for Thursday.

- To be posted tomorrow:
  - Group/Company Assignments
  - Presentation/News Folio Assignments
  - Assignment 2 (due 10/14)
Student Presentations
Transaction Processing Systems

- Record and Process data resulting from business transactions
- Example: Credit card trans. processing
- 2 types
  - Real-time
  - Batch-Processing
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
A Streamlined Business Process

Customer

Order

Automatic Credit Check

Take Order

Enter Order

Credit Check

Check Stock

Print Invoice

Print Packing list

Find Goods

Ship

Tell Mfg. to make order

Business Functions

Sales

Finance

Inventory Control

Warehousing
A Reengineered Business Process

Customer
- Order
- On web

Business Functions
- 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

Bargaining Power of Suppliers

Intra-Industry Rivalry Strategic Business Unit

Bargaining Power of Buyers

Substitute Products and Services
Porter Competitive Model
Education Industry - Universities

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

Intra-Industry Rivalry
SBU: UCSC
Rivals: UC campuses, CSU, Private universities, Community Colleges

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

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

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

  ![Porter's Five Forces Diagram for a Dentist's Office](diagram.png)

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

  - **Suppliers**
    - Staff
    - Hygienists

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

  - **Substitutes**
    - Alternative Medicine?

  - **Buyers**
    - Public in general
    - Insurance companies
    - Those wanting cosmetic dentistry
“Primary” Porter Strategies

- In economics you will learn a market where
  - Product is a commodity
  - Firms all have the same production costs
  - New firms can enter market at no cost ("free entry")

  profits are driven to zero.

- Consequently Firms need to
  - Differentiate and/or
  - Achieve Cost leadership
“Primary” Porter Strategies

**Differentiation**—customer values the differences that you provide in products, services or capabilities.

**Cost**—become the lowest cost provider. If this is the only primary strategy in the industry, over time there will only be one ultimate winner.
Porter Supporting Strategies

- **Innovation**
  - Can reduce costs and or **differentiate**

- **Growth**
  - Help offset fixed **costs**
  - Establish reputable brand (differentiate)

- **Alliances**
  - Achieve more complete solution (differentiate)
  - Integration of each others technology may reduce **costs**
Rules Regarding Strategies

- Must pick *at least* one of the two primary strategies.

- Can pick any combination or supporting strategies.

Let’s test the logic of this using Dell and Wal-Mart Stores.
Dell, Inc. Strategies

Primary Strategy:
Differentiation
Least Cost

Supporting Strategies:
Innovation
Growth
Alliances
Wal-Mart Strategies

Primary Strategy:
Least Cost
Differentiation

Supporting Strategies:
Innovation
Growth
Alliances
What do Porter Models Have to do with IT?

Any ideas?
Porter Model and Information Systems:

1. Build **barriers** to prevent a company from **entering** an industry?

2. Build in costs that would make it difficult for a customer to **switch** to another supplier?

3. Change the basis for competition within the industry?

4. Change the balance of power between a company and its customers or suppliers?

5. Provide the basis for new products and services?