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## ISM 50 - Business Information Systems

### Lecture 3

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UC Santa Cruz  
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## Outline For Today

- Class Announcements
  - Student Presentations
  - Finish Systems Concepts (O'Brien Ch1)
  - Ch 2 O'Brien
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## Class announcements

- Due Today
    - Project Preferences
    - Assignment 1: Resume and Cover letter
  - For Next time Read:
    - Chapter 2 - Section II of O'Brien
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## STUDENT PRESENTATIONS

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## 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.

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## Why Does a Company Need to Make a Profit?

- Invest in new product development.
  - Invest in facilities and equipment.
  - Invest in operational improvements.
  - Expand by acquiring another company.
  - Invest in employees (training and salary increases)
  - To justify borrowing money.
  - To pay stockholders a dividend.
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## 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

## 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).

## 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?

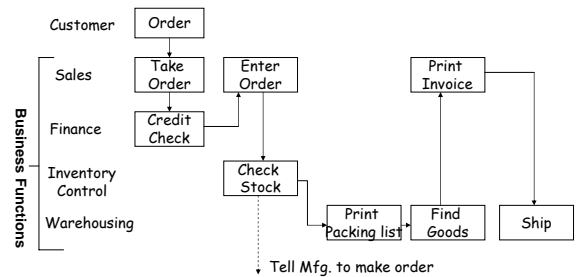
- Specialization
- Size
- Efficiency
- More cost effective

## Business Processes

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

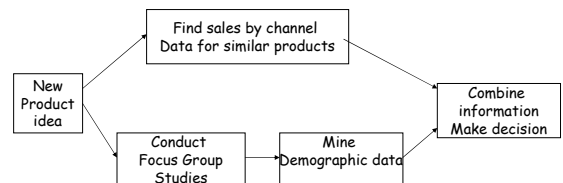


## Cross Functional Process

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

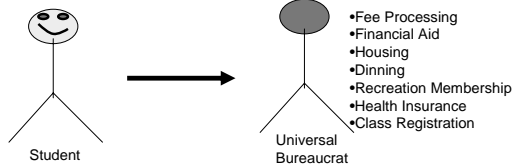
## A business process within a function

Example: Channel Selection Process within Marketing function



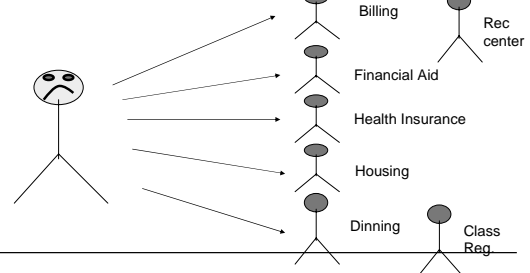
## Processes tend to be more simple at smaller organizations

Enrollment Process at a small, fictitious university...



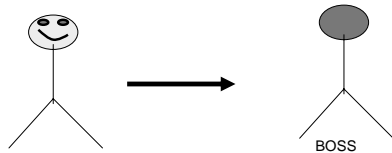
## Processes tend to be more simple at smaller organizations

Enrollment Process at UCSC...



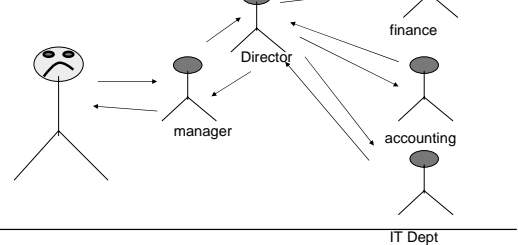
## Similarly, at small companies

Example: Capital Equipment Purchase Business Process...



## Big company

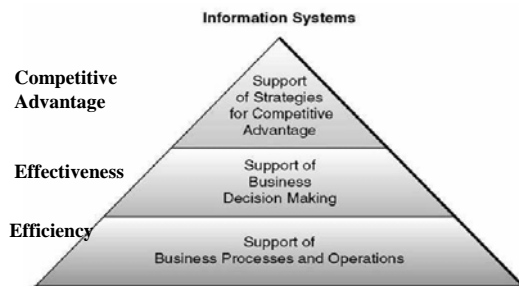
Capital Equipment Purchase Business Process



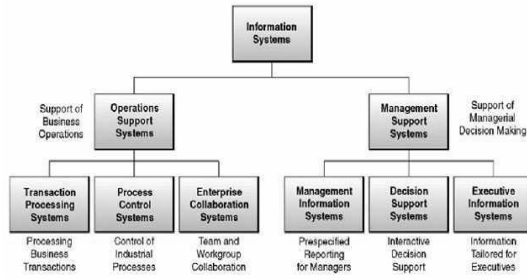
## So where do Information Systems Fit into this Story??

- 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

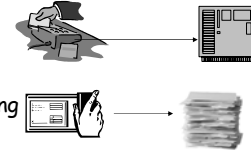


## A few Information System Categories...



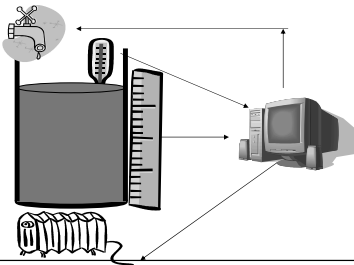
## Transaction Processing Systems

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

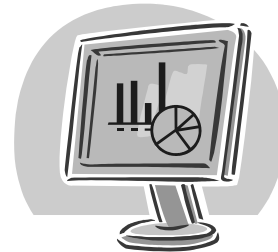


## An example: Process Control Systems

- Monitor and control physical processes
- Example:



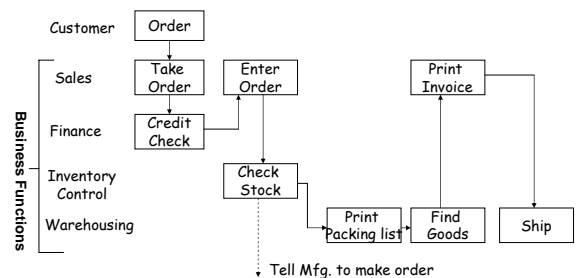
## An example decision support systems



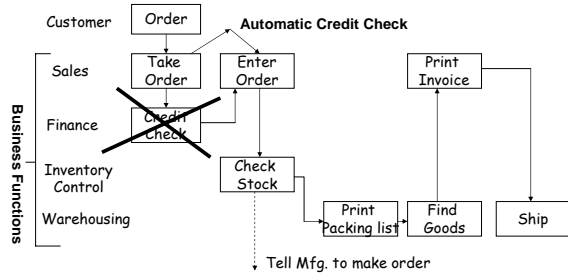
## What is Business Process Reengineering?

- A fundamental rethinking and redesign of business processes
- Minor improvement to a business process is often called streamlining the business process

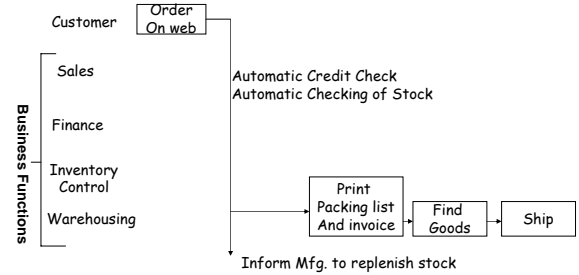
## Business Process Example



## A Streamlined Business Process



## A Reengineered Business Process



## 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...