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# TIM 50 - Business Information Systems

## Lecture 4

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Instructor: **Terry Allen**

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UC Santa Cruz

10/5/2011

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Most slides - and the better part of most other  
slides - are by Professor *John Musacchio*

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# Outline

- Announcements
- Review: IS-components, roles, categories...
- News Article Presentation
  
- Strategic Advantage
  - The Porter Model (of competitive strategy)
  - Value Chain Concept

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# TIM 50

## Instructor

- Terry Allen ([terry\\_allen@hotmail.com](mailto:terry_allen@hotmail.com))
  - Office Hours:
    - Monday and Wednesday, 7:00 p.m. to 8:00 p.m. (as needed),
    - And Tuesday, TBD
    - Office# is also TBD

## TAs

- TBD
  - Office Hours:
- Huascar Sanchez ([hsanchez@soe.ucsc.edu](mailto:hsanchez@soe.ucsc.edu))
  - Office Hour: Wednesday, 11:00 a.m. to noon, at Jack's Lounge (for now) in Baskin Engineering Building

## Class website

- <http://courses.soe.ucsc.edu/courses/tim50/Fall11/01>

# Class announcements

## ■ Presentations

- ❑ Send me the presentation & link to article the night before
- ❑ Include article details in the slides
- ❑ Today: Wai Son Wong, Dave (News)
- ❑ The presentation list will be announced soon

## ■ Add "TIM 50" to all email correspondence+topic

- ❑ Send photo (FirstLast.jpg)

## ■ Group preferences

- ❑ Names
- ❑ Companies
- ❑ Who wants to do the presentation

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# More Announcements

Group assignments will be posted on web site

- Maintain contact with the rest of the people in your group
- Start working on the Business Paper *proposal* (due on 12<sup>th</sup> October)
- If you don't see your name on the list, contact us asap!!!

■ Presentation Assignments will be on web site

- Whoever is NOT assigned to do a presentation must start working on the 1st News Folio (due on 10/12)

# Announcements

- **Monday's (10/10) Presentations:**
  - ??
    - News Story
  - ??
    - News Story
- **Wednesday's (10/12) Presentations:**
  - ??
    - News Story
  - ??
    - Frito Lay Case
- **For next week read:**
  - Chapter 2 of O'Brien (pp. 78-90) (Mon)
  - Frito-Lay Case (reader pp:93-113) (Wed)

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# Review from last class

## What is a business process?

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

## What is a business function?

- A category of activity in a business that requires people with a particular specialization.
  - IT function, marketing function, sales function, etc.

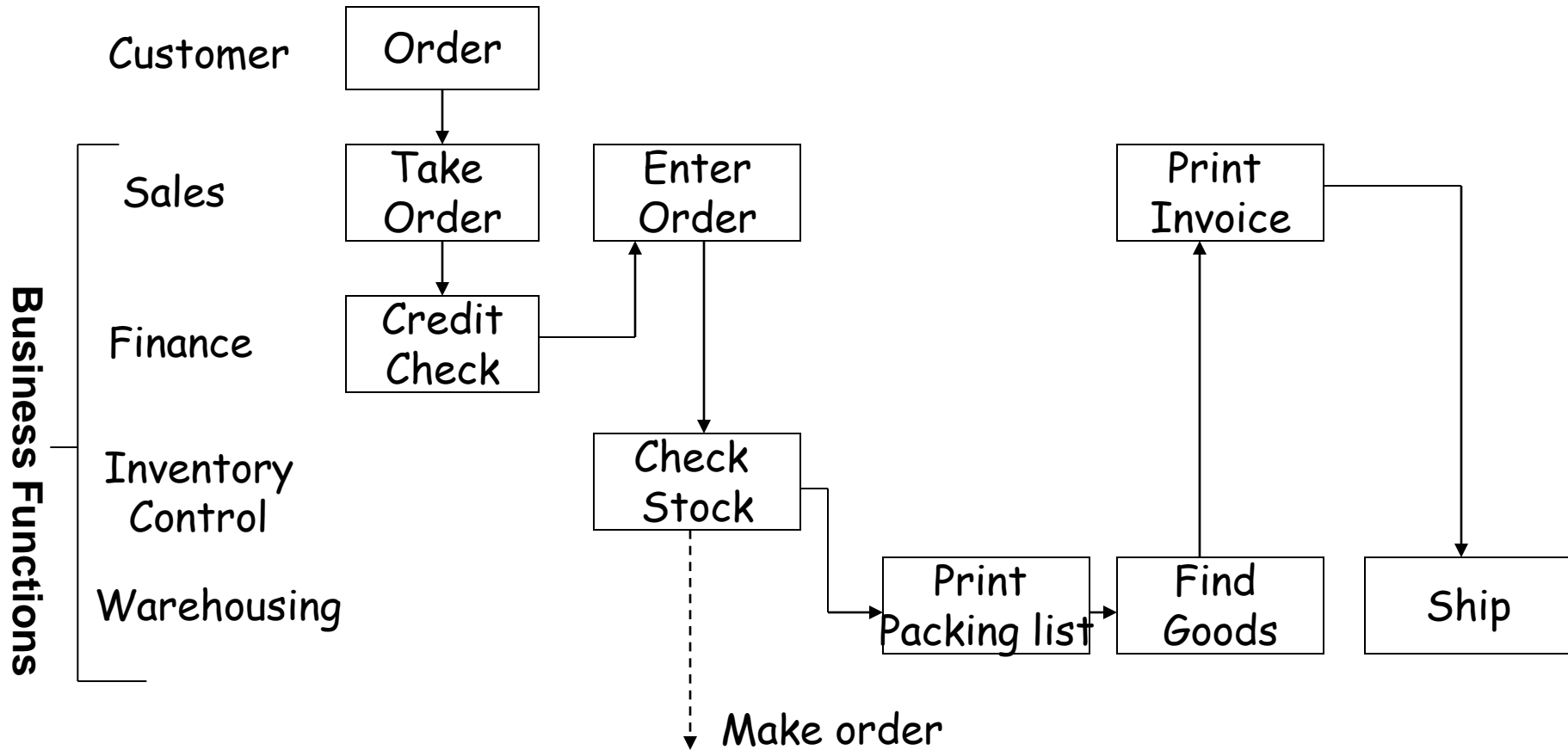
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# Business Process Reengineering

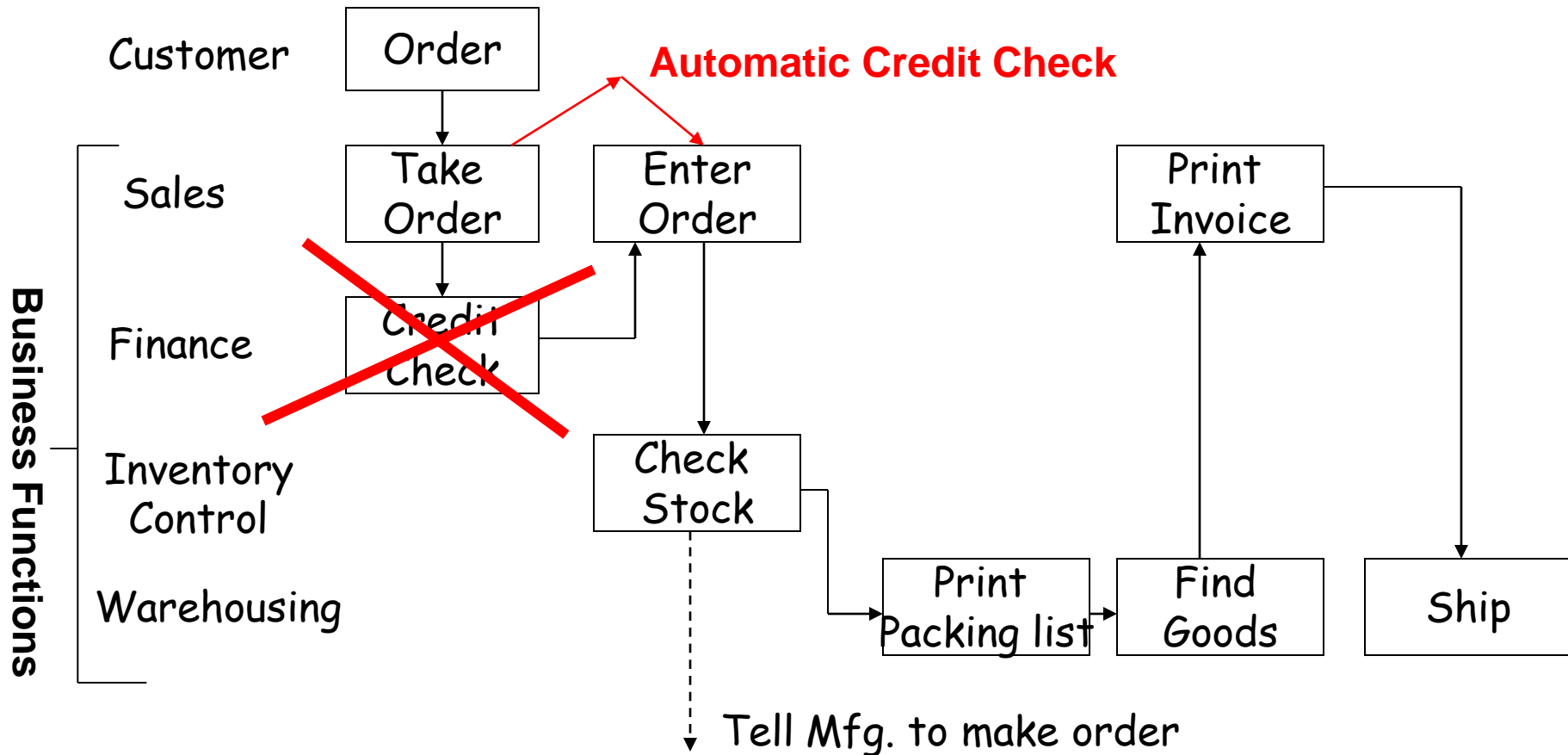
- *A fundamental rethinking and redesign of business processes*
  - One of the most important implementations of competitive strategies
  - May achieve dramatic improvements in cost, quality, speed, service
  - BUT: Risk of failure and level of disruption is high
- Minor improvement to a business process is often called *streamlining* the business process



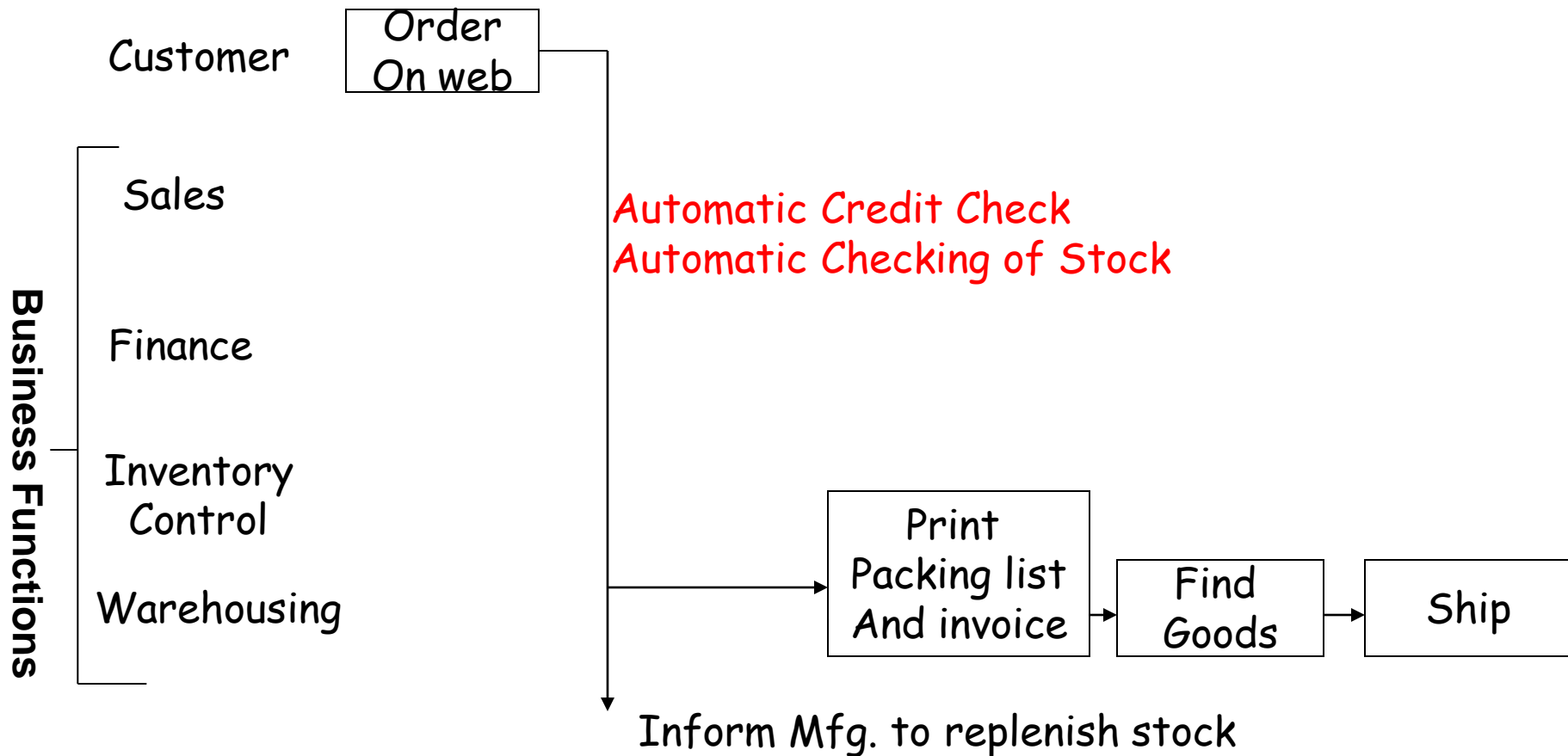
# A Business Process



# A Streamlined Business Process

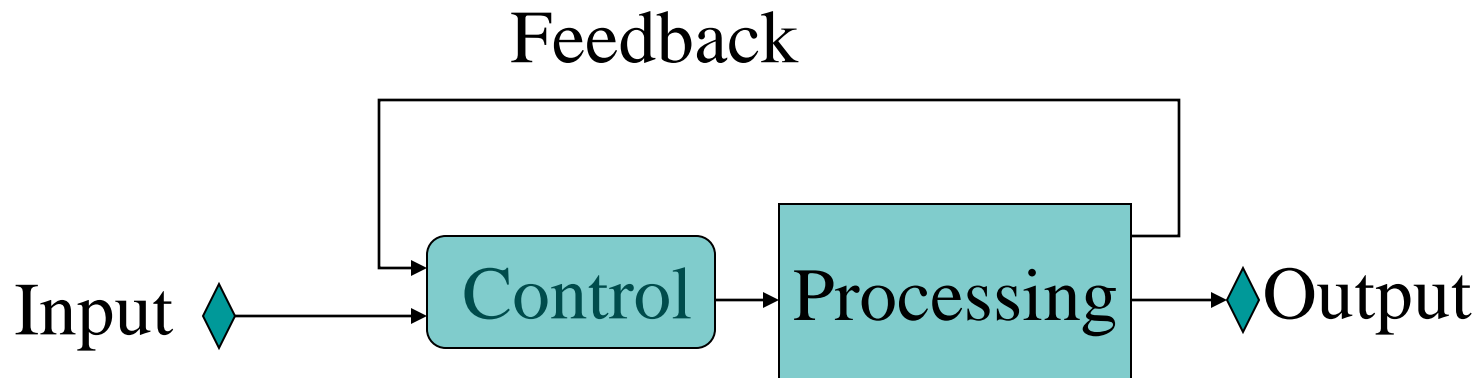


# A Reengineered Business Process



# Recall: What is a System?

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



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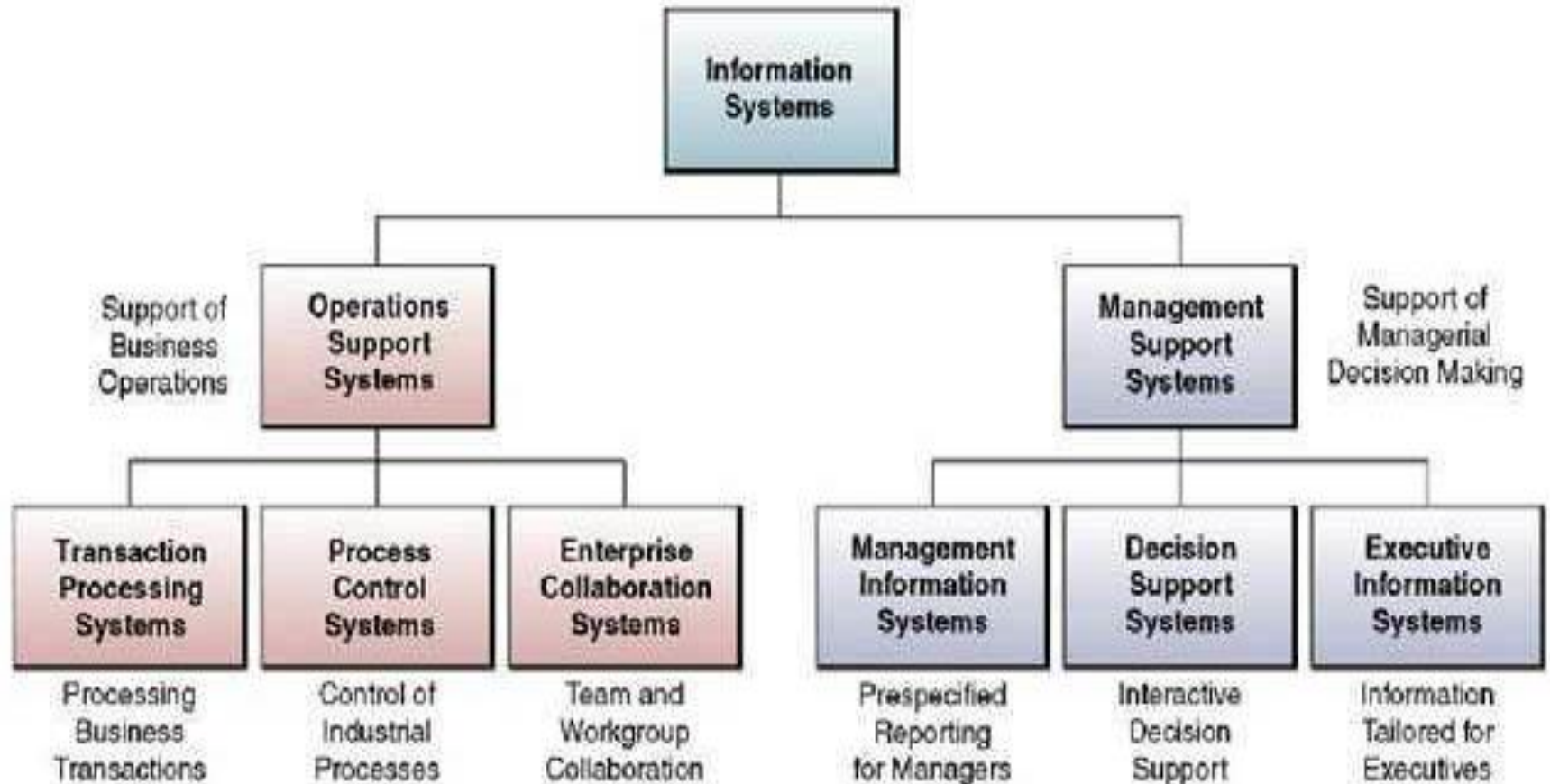
# Components of Information Systems

- People resources
- Hardware resources
- Software resources
- Data resources
- Network resources

# Information System Roles



# A few Information System Categories...



# Student Presentation



- Wai-Son Wong
- Dale McNally



# Competitive Strategies



- How should a business professional think about competitive strategies?
- How can competitive strategies be applied to the use of IS in a business?
- Porter's model of competitive strategies

# □ Porter Competitive Model

## ■ What is it?

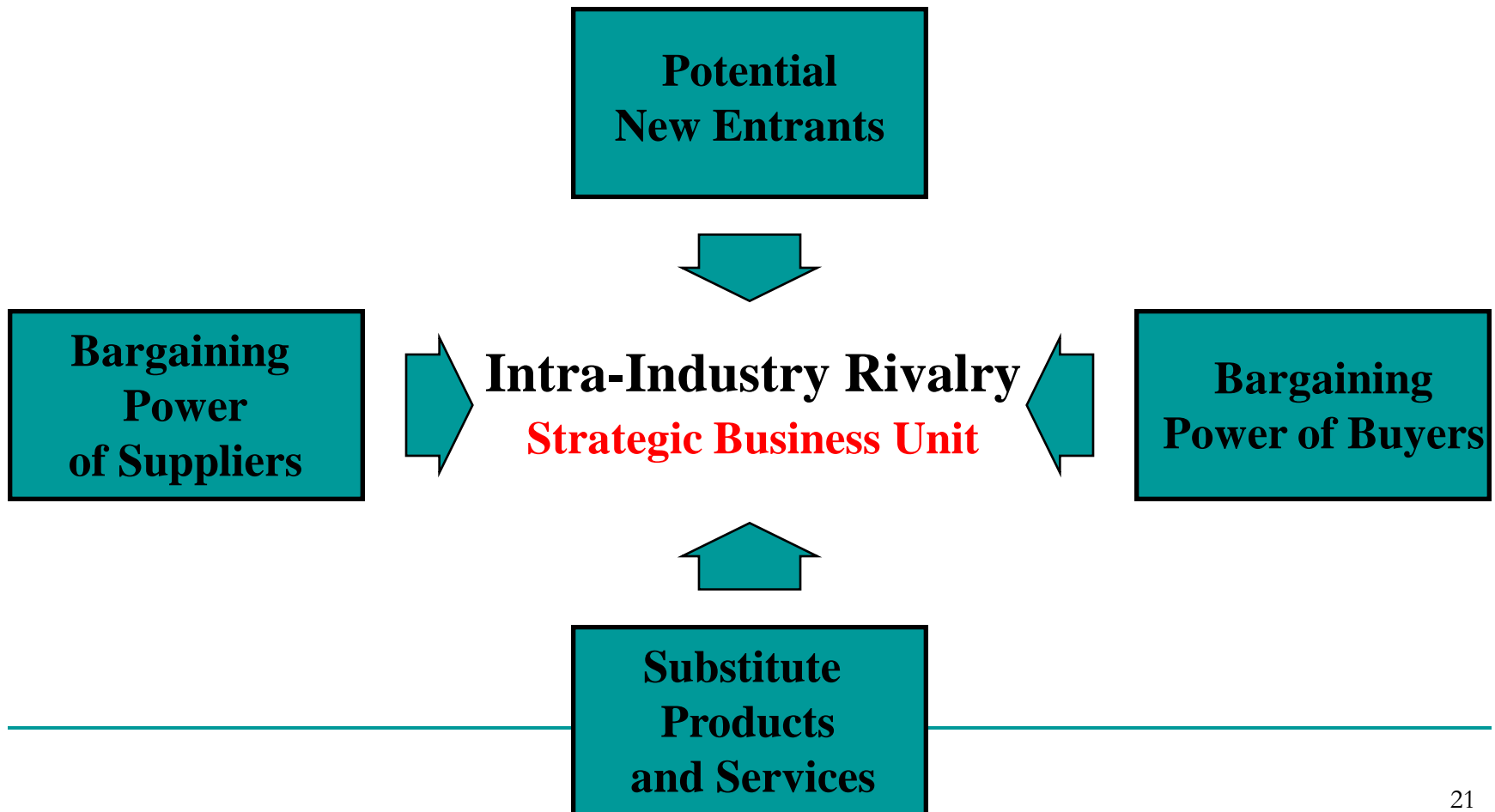
- A model to help understand the competitive environment in which a company operates.

## ■ 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)



# 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 intra-industry rivals.
    - Discuss if and why these players put strong or weak competitive pressures on your business.

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# The 5 forces

- **Rivalry of Competitors**

- Is there a strong competition between existing players?
- Is one player stronger or all are equal in strength/size?

- **Bargaining power of suppliers**

- How strong is their position?
- Are there only a few suppliers? Monopolies?

- **Bargaining power of customers**

- How strong is their position?

- **Threat of New Entrants**

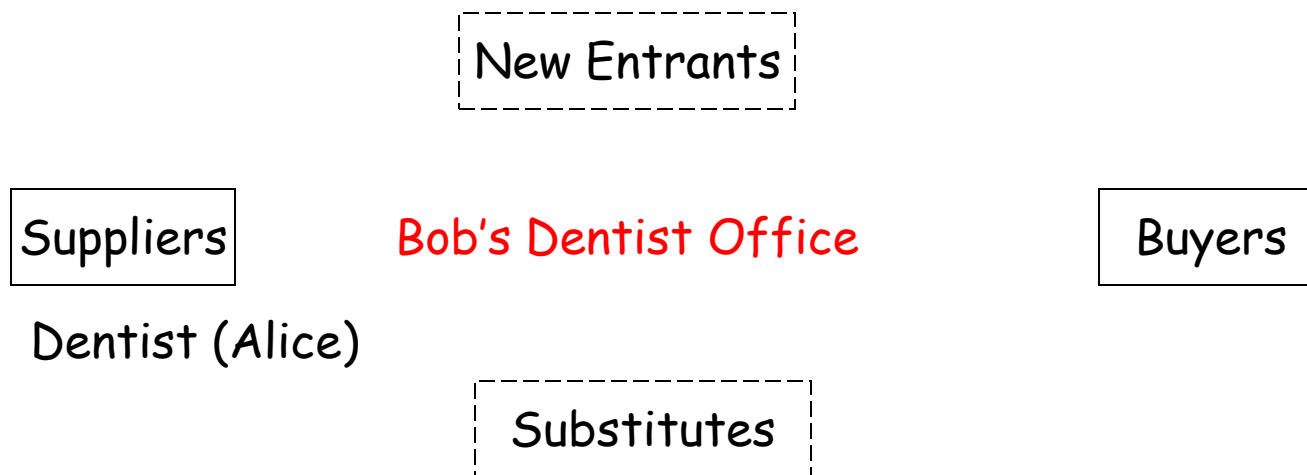
- How easy/difficult is for new entrants to start competing?
- Any existing barriers?

- **Threat of Substitutes**

- Potential for alternatives? Especially cheaper ones...

# Example: Usefulness of Porter Model

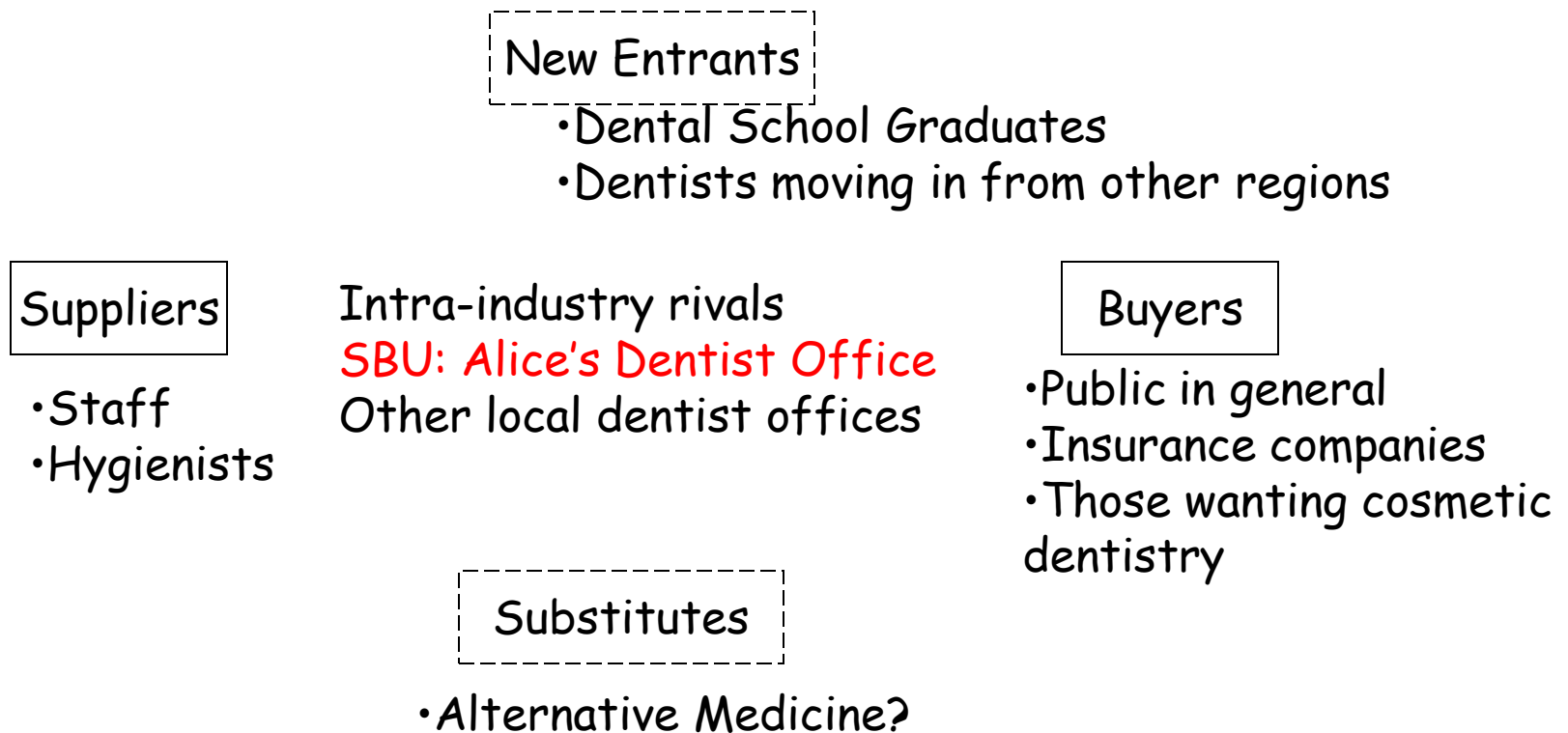
- **Bob wants to start a dentist office**
  - However, Bob did not go to dental school
  - Bob will hire the dentist and other staff
  - Is this a good model?



**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



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# Basic Competitive Strategies

- Counter the competitive forces by implementing 5 basic competitive strategies:
  - Cost leadership
  - Differentiation
  - Innovation
  - Growth
  - Alliances



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# Porter Model Tips

1. You must define the industry correctly. Not doing so can cause major problems in doing Section I (Industry Profile) of the business analysis paper.
2. You must identify the specific market being evaluated.
3. Your analysis company is the "Strategic Business Unit."

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# Porter Model Tips

4. Identify *rivals* by name for majors, by category for minor rivals if needed to present the best possible profile of rivals.
5. Be sure to address the power implications of both customers and suppliers. Power buys them what?
6. Identify *customers/buyers* and *suppliers* by categories versus companies
7. Summarize your Porter Model analysis.

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# How IT supports these strategies?

- **Lower Costs**

- Reduce the cost of business processes
- Lower costs of customers/suppliers

- **Differentiation**

- Develop new IT features in products/services
- Use IT to reduce differentiation of competitors

- **Innovation**

- Create new products/services
- Develop new markets/channels using IT
- Re-engineer business processes

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# How IT supports these strategies? (cont'd)

- **Growth**

- Use IT to manage regional and global business expansion

- **Alliances**

- Create virtual organizations of partners
- Develop intranets for inter-enterprise collaboration and extranets to support relationships with customer/suppliers etc.

- **Major use of Internet technologies for e-business and e-commerce apps.**

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# More competitive strategies...

- **Lock in customers/suppliers**
  - Build valuable relationships
  - Improve QOS
- **Build switching costs**
  - Develop convenient/efficient systems
- **Raise barriers to entry**
  - Invest on major/complex IT infrastructure
- **Leverage investment on IT**
  - Develop IT components that cannot be easily substituted

# Some examples...

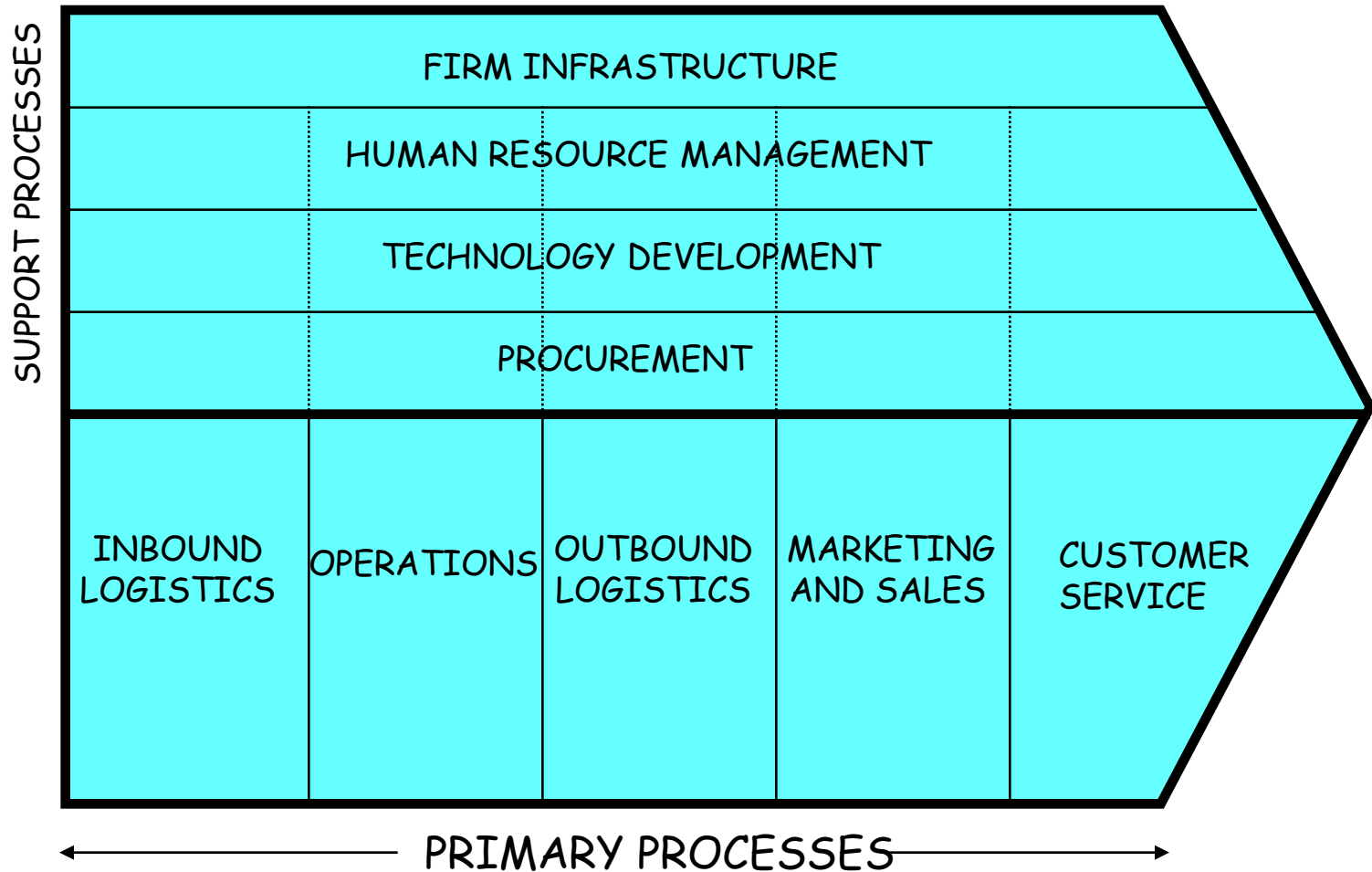
- **Amazon.com uses customer reviews**
  - Helps customers decide on which items to buy
- **LEGO offers downloadable software**
  - Customers design their own product and buy it online
- **Medtronic sells "smart" heart implants**
  - Automatically update your health file
- **Netflix recommendations**
  - Based on "similar" users
  - Based on your friends' likes
  
- **The future: Interactive "storefronts"**

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# Porter's Value Chain

- The **Competitive Model** deals with the environment within which a company competes
- The **Value Chain** addresses the flow of a product through the organization.
  - It starts with the original idea in research and tracks its progress all the way to the customers.

# Generic Value Chain





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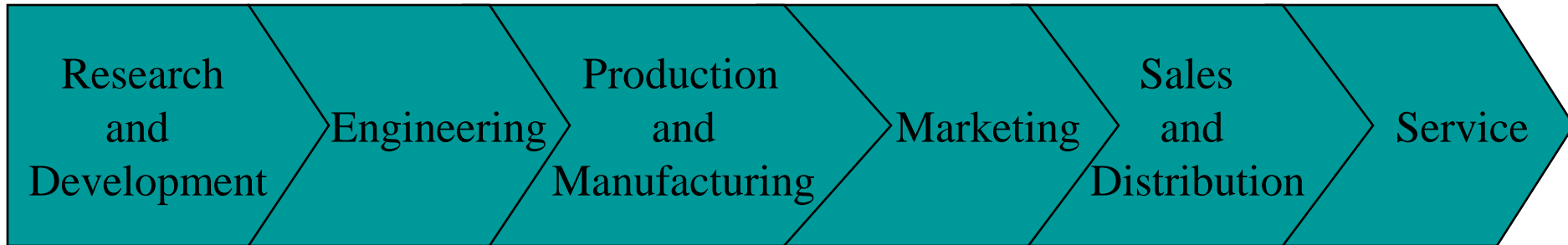
# Value Chain Purpose

- A way of classifying a company's activities and how they help deliver value to customer
- A framework for evaluating decisions like outsourcing, or deployment of IT

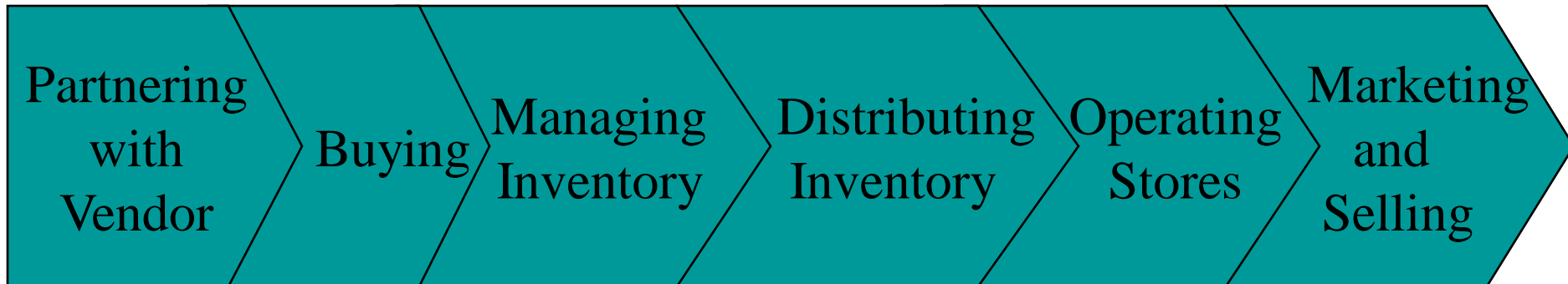
# Things to Remember Regarding the Value Chain

- The ultimate objective is **value to customer**
- As a new product and/or service moves through the value chain, it is important to **maximize value-add activities** and minimize things that do not add value to customer.
- Functional departments must be sure to emphasize the ultimate goal of value to customer and not do things that seem to make them look good but contradicts the ultimate objective

# Simple Value Chain for Manufacturing Industry



# Simple Value Chain for Retail Industry



# Examples of IT Supporting Value Chain

