Day 2
The Information Systems
Strategy Triangle

Today’s Learning Objectives

• Achieve a basic understanding of strategy and organizations
  – Review generic strategy models
  – Review organization applications

• See the balancing relationship between business strategy, org. structure and IS strategy
The corners are interlocking. Change one and all must adjust.

BS Strategy

IS Strategy is affected by the other strategies a firm uses. Changes in IS strategy must be accompanied by changes in the other two.

Information Strategy

IS strategy has (sometimes unintentional) consequences on the business and organizational strategies.

Manager in the coordinating role

Includes the whole concept of organizational design

BRIEF OVERVIEW OF BUSINESS STRATEGY FRAMEWORKS
What is Strategy?

• A firm’s *business strategy* determines…
  – Products and services the firm produces
  – Industries in which the firm competes
  – Competitors, suppliers, and customers of the firm
  – Long-term goals of the firm

Thinking about Strategy

• Strategy is something that should be considered at multiple levels
  – Business
  – Firm
  – Industry
What is a Strategic Information System?

• Changes the goals, operations, products, services, or environmental relationships of organizations to help gain an edge over competition
• Information technology that alters basic competitive structure of industry

Low-Cost Producer: Role of IT

• Efficient Customer Response Systems
  – Directly links consumer behavior back to distribution, production, and supply chains
  – Performed through Supply Chain Management
• Example – Baxter International
Example: Baxter International

1. TRADITIONAL DELIVERY PRACTICE
2. JUST-IN-TIME SUPPLY METHOD
3. STOCKLESS INVENTORY METHOD

BUSINESS STRATEGY FRAMEWORKS

1. Porter’s Generic Strategies Framework (and its variants)
2. Hypercompetition and the New 7-S’s framework (D’Aveni)
3. Co-opetition (Brandenburg and Nalebuff)
Five Forces Model

- Threat of New Entrants
- Bargaining Power of Suppliers
- Bargaining Power of Buyers
- Threat of Substitute Products or Services
- Rivalry among existing firms
- Potential Entrants

**Figure 3-15** Porter's competitive forces model.

- New Market Entrants
- Suppliers
- The Firm
- Customers
- Traditional Industry Competitors
- Substitute Products and Services
Ecosystem Strategic Model

Porter’s competitive forces with potential strategic use of information

Strategic use
• Cost effectiveness
• Market access
• Differentiation of product or service

Potential threat of new entrants

Strategic use
• Switching costs
• Access to distribution channels
• Economics of scale

Bargaining power of suppliers

Strategic use
• Selection of supplier
• Threat of backward integration

Trades of substitutes

Strategic use
• Redefine products and services
• Improve price/performance

Industry competitors

Strategic use
• Buyer selection
• Switching costs
• Differentiation

Bargaining power of buyers

Substitute products and services

New Market Entrants

Suppliers

Industry Ecosystem

Customers

FIGURE 3-16 An ecosystem strategic model.
Business-Level Strategy: Value Chain

- A series of processes in organization
  - Some add value
  - Some reduce value
- Information technology can improve these processes
Gaining competitive value

• The Value Chain model suggest that competition can come from two sources:
  – **Lowering the cost** to perform an activity and
  – **Adding value to a product or service** so buyers will be willing to pay more.

• Lowering costs only achieves competitive advantage if the firm possesses information on the competitor’s costs

• Adding value is a strategic advantage if a firm possesses accurate information regarding its customer such as: which products are valued? Where can improvements be made?
**Value Web (extension of Value Chain)**

- Customer-driven network of independent firms
- Collection of firms that use IT to coordinate value chains for collectively producing product or service

**The value system: interconnecting Relationships between organizations**
The Value System and Strategic Alliances

- Many industries are experiencing the growth of strategic alliances that are directly linked to sharing information resources across existing value systems.
- An alliance between American Airlines, Marriott and Budget Rent-A-Car called AMRIS provides travelers with a single point of contact.
- Thus, electronically pooling information services of several companies can create competitive advantage by saving customers time.


Industry-Level Strategy: Information Partnerships

- Cooperative alliance between two or more corporations
  - Share information to gain strategic advantage
- Firms gain access to new customers
  - New opportunities for cross-selling and targeting products

Variants on Differentiation Strategy

- **Shareholder value model**: create advantage through the use of knowledge and timing (Fruhan)
  - Information arbitrage
- **Barriers to entry model**: firms create barriers to entry to keep competitors out of their markets (see Five Forces model)
- **Unlimited resources model**: companies with a large resource can sustain losses more easily than ones with fewer resources

These make the most sense under relatively stable conditions. What of times of rapid change, and instability?
Hypercompetition and the New 7-S’s framework (D’Aveni)

- Sustained competitive advantage is not possible
- Only temporary advantages exist, created by a company’s speed and aggressiveness.
- Assumes:
  - Every advantage becomes eroded
  - Sustaining an advantage uses too much time and resources.
  - Instead, companies must seek to stay ahead of its competitors by creating temporary advantages. Goal: is disruption not stability.
  - These are done in small steps over short competitive cycles. Focus on creating the next temp. advantage.
  - Constant innovation.

Disruption and the new 7-S’s (Figure 1.3)

**Vision for Disruption**
Create temporary advantage through understanding stakeholder satisfaction or strategic soothsaying

**Capability for Disruption**
Sustaining momentum through speed and surprise can create temporary advantages

**Tactics for Disruption**
Gain advantage by: shifting the rules, signaling, simultaneous and sequential strategic thrusts
D’Aveni’s new 7-S’s (Figure 1.4)

- **Superior stakeholder satisfaction**: maximize customer satisfaction by adding value strategically
- **Strategic soothsaying**: use new knowledge to predict new windows of opportunity
- **Positioning for speed**: prepare the org. to react as fast as possible
- **Positioning for surprise**: surprise competitors
- **Shifting the rules of competition**: serve customers in novel ways
- **Signaling strategic intent**: communicate intentions in order to stall competitors
- **Simultaneous and sequential strategic thrusts**: take steps to stun and confuse competitors in order

Co-opetition (Brandenburger & Nalebuff)

- More about forming alliances to better compete.
  - Airlines: Star Alliance
- “the Value net”: in which companies, competitors, customers and suppliers are participate (and compete in)
  - Key concept is “complementors”, companies that sell complementary products and services.
    - E.g., hardware and software
    - Co-branding
  - These can often gain advantage by forming an alliance to provide a more competitive
    - E.g., work with competitors to grow a market
Why are strategic advantage Models essential to Info Systems (IS) planning?

• Giving up authority on IS decisions is giving up IS strategy
• Poorly chosen IS infrastructure undermines strategy
• Business strategy needs to address:
  – What is the business goal or objective?
  – What is the plan for achieving it? What is the role of IS in this plan?
  – Who are the crucial competitors and cooperators, and what is required of a successful player in this value net?

Summary of strategy frameworks

• Generic Strategies: competitive advantage through low cost, differentiation or cross-functional focus
• Hypercompetition: competitive advantage is temporary, created through speed and aggression in the market
• Co-opetition: companies create alliances of firms with complementary outputs to better compete
Wiseman’s *Strategic Options Generator*

- Wiseman asks three questions to refine the process of identifying strategic opportunities or **Thrusters**:
  - What is the **mode** of the thrust?
  - What is the **direction** of the thrust?
  - What is the strategic **target** of the thrust?
Types of Strategic Thrusts

- **Differentiation Thrusts**: focus resources on unfilled product or service gaps.
- **Cost Thrusts**: focus is on reducing costs or increasing competitor’s costs.
- **Innovation Thrusts**: focus on creating new products or new ways to sell, create, produce or deliver products.
- **Growth Thrusts**: focus on increasing size of the market size or adding more value adding activities in the value chain.
- **Alliance Thrusts**: combine with other groups to create a more competitive position.

Wiseman’s Strategic Options Generator

- What is the **mode** of the thrust?
- What is the **direction** of the thrust?
- What is the strategic **target** of the thrust?
What is the Mode?

- A firm has two choices for the mode of a strategic thrust:
  - The firm can act offensively to improve its competitive advantage -- or
  - A firm can act defensively to reduce the opportunities available to competitors.
- For example, a firm can innovate offensively to gain product leadership in a market, while others use innovation defensively to imitate the product leader.

Wiseman’s Strategic Options Generator

- What is the mode of the thrust?
- What is the direction of the thrust?
- What is the strategic target of the thrust?
What is the **Direction**?

- Two choices for the direction of a strategic thrust:
  - The firm can use the information system to create competitive advantage -- or
  - A firm can provide the system to its chosen strategic target.
- Firms have done both: developed systems for internal use and then offered them to customers or suppliers.
  - For example, although FedEx developed its Powership system internally, it was able to offer it to its best customers, thereby increasing their switching costs.

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Wiseman’s Strategic Options Generator

- **What is the mode of the thrust?**
- **What is the direction of the thrust?**
- **What is the strategic target of the thrust?**
What is the Strategic Target?

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<th>Competitors:</th>
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Example: Strategic Options Generator

- Wiseman combined mode, direction and strategic thrust into a strategic options generator
  - Example: Dell computer’s initial thrust:
    - Strategic Target: (direct market to) the customer
    - Mode: Offensive
    - Direction: Use IS to gain advantage
- Second thrust: provide customer information to suppliers
- Third thrust: let customers auto-configure systems directly via the Internet.
FOOD FOR THOUGHT: TIME-BASED COMPETITIVE ADVANTAGE

Time-Based Competitive Advantage

• The Internet is increasing the pace of technological change by refocusing competitive efforts towards creating time-based competitive advantage.
• Information resources are the key to creating those advantages.
• For example, Dell’s direct strategy has been to build and deliver computers in as little as 5 days.
• Thus, the speed at which an organization adapts its business processes will the true measure of its’ ability to maintain competitive advantage.
IS Strategy Options: How might we use the IS assets strategically?

- **Hardware**: physical components in a physical location.
- **Software**: programs, applications and utilities that reside on the hardware.
- **Networks**: hardware and software that interconnects other IS components located where the networks and cables are.
- **Data**: information stored in the system.

Wrap Up

1. **Business strategy drives organizational strategy and IS strategy.**
   - Organization strategy must complement business strategy. Business organization either supports business strategy or gets in the way.
   - Likewise, IS strategy must complement business strategy. When IS support business goals, the business appears to be working well.

2. **Org. strategy and info. strategy must complement each other.**
   - They must support, rather than hinder each other.

3. **If a decision is made to change one corner of the triangle, it is necessary to evaluate the other two corners to ensure that the balance is preserved.**