Chapter 1
The Information Systems Strategy Triangle

Managing and Using Information Systems: A Strategic Approach
by Keri Pearlson & Carol Saunders

Introduction

• How knowledgeable must a general manager be about IS?
• What are the ramifications of an improperly implemented IS?
• Can IS be examined in isolation? Why or why not?
• What function does IS play in the business strategy of an organization?

Real World Example

• National Linen Service was facing poor earnings due to increased competition and a weak economy.
• They created a strategic systems department to increase competitiveness.
• A new system was implemented, BOSS, that deleted expired customer contracts hurting their bottom line.
• The unintended consequences of the system were not taken into account.

The Impact of IS

• The Information Systems Strategy Triangle is a simple framework for understanding the impact of IS on organizations.
• Successful firms have an overriding business strategy.
• This business strategy drives both Organizational and Information strategy.
• All decisions are driven by the firm’s business objectives.
Figure 1.1 The Information Systems Strategy Triangle

IS Strategy Triangle

- Business Strategy drives all other strategies.
- Organizational and Information Strategy are then dependent upon the Business Strategy.
- Changes in any strategy requires changes in the others to maintain balance.
- IS Strategy is affected by the other strategies a firm uses.
- IS strategy always involves consequences.

Think About IT

- What is a business strategy?
- Which factors influences a business strategy?
- How does a business change its strategy without losing balance within its organization and IS structure?
- Are there specific events that induce a business to change its strategies and what are they?
Generic Strategies Framework

- Michael Porter describes how businesses can build a sustainable competitive advantage.
- He identified three primary strategies for achieving competitive advantage:
  - Cost leadership – lowest-cost producer.
  - Differentiation – product is unique.
  - Focus – limited scope.

Porter’s Competitive Advantage

- Remember that a company’s overall business strategy will drive all other strategies.
- Porter defined these competitive advantages to represent various business strategies found in the marketplace.
- Cost leadership strategy firms include Walmart, Suzuki, Overstock.com, etc.
- Differentiation strategy firms include Coca Cola, Progressive Insurance, Publix, etc.
- Focus strategy firms include the Ritz Carlton, Marriott, etc.

Differentiation Strategy Variants

- **Shareholder value model**: create advantage through the use of knowledge and timing (Fruhan)
- **Unlimited resources model**: companies with a large resource can sustain losses more easily than ones with fewer resources (Chain Store vs Mom & Pop).
- The problem with Porter and these variants are that the rate of change is no longer easily managed and sustained.
Hypercompetition

- D’Aveni developed a model that stated that sustainable competitive advantage could NOT be sustained.
- Called the “Hypercompetition and the New 7 Ss Framework”.
- Competitive advantage is rapidly erased by competition and the market.

Assumptions of D’Aveni Hypercompetition and the New 7 Ss Framework model:
- Every advantage is eroded.
- Sustaining an advantage can be a deadly distraction.
- Goal of advantage should be disruption, not sustainability
- Initiatives are achieved through series of small steps.

D’Aveni’s new 7 Ss

- The 7 Ss are useful for determining different aspects of a business strategy and aligning them to make the organization competitive in the hypercompetitive arena.
- The 7 Ss are (see Figure 1.4):
  1. **Superior stakeholder satisfaction**: maximize customer satisfaction by adding value strategically
  2. **Strategic soothsaying**: use new knowledge to predict new windows of opportunity
  3. **Positioning for speed**: prepare the org. to react as fast as possible
  4. **Positioning for surprise**: surprise competitors
  5. **Shifting the rules of competition**: serve customers in novel ways
  6. **Signaling strategic intent**: communicate intentions in order to stall competitors
  7. **Simultaneous and sequential strategic thrusts**: take steps to stun and confuse competitors in order to disrupt or block their efforts

![Figure 1.3 Disruption and the new 7 Ss](chart)
Application of Hypercompetition

- General Electric applied the Hypercompetition Model to its business units in the Destroy Your Business (DYB) project.
- GE recognized that if they didn’t understand and recognize their own weaknesses they could not remain competitive.
- Employees were tasked to determine ways to “destroy their business unit”. Once they have identified these areas of weakness they apply the Grow Your Business (GYB) strategy to find fresh ways to reach new customers and better serve existing customers.

IS Planning and Strategic Advantage Models

- General Managers cannot afford to rely solely on IS personnel to make IS decisions.
- Business strategy drives IS decision making.
- Changes in IS potential should trigger business reassessments (i.e. the Internet).
- Information Systems Strategy Triangle shows the proper balance of strategies.
- The models are helpful in discussing the role of IS in building and sustaining competitive advantage.

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<thead>
<tr>
<th>Framework</th>
<th>Key Idea</th>
<th>Application to Information Systems</th>
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<tbody>
<tr>
<td>Porter’s generic strategies framework</td>
<td>Firms achieve competitive advantage through cost leadership, differentiation, or focus.</td>
<td>Understanding which strategy is chosen by a firm is critical to choosing IS to complement that strategy.</td>
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<tr>
<td>D’Aveni’s hyper-competition model</td>
<td>Speed and aggressive moves and countermoves by a firm create competitive advantage</td>
<td>The 7 Ss give the manager suggestions on what moves and countermoves to make. IS are critical to achieve the speed needed for these moves.</td>
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Figure 1.5 Summary of key strategy frameworks.
Organizational Strategy

- Organizational strategy includes the organization’s design as well as the choices it makes in its work processes.
- How will the company organize in order to achieve its goals and implement its business strategy?
- Business Diamond – simple framework for identifying crucial components of an organization’s plan (Figure 1.6)
- Managerial Levers – another framework for organizational design, states that successful execution of the firm’s organizational strategy is the best combination of organizational, control, and cultural variables (Figure 1.7).

Understanding Organization Strategy

To understand organizational strategy we must answer the following questions:
1. What are the important structures and reporting relationships within the organization?
2. What are the characteristics, experiences, and skill levels of the people within the organization?
3. What are the key business processes?
4. What control systems are in place?
5. What is the culture of the organization?
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<th>Usefulness in IS Discussions</th>
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<td>Business Diamond</td>
<td>There are 4 key components of an organization: business processes, values and beliefs, management control systems, and tasks and structures.</td>
<td>Using IS in an organization will affect each of these components. Use this framework to identify where these impacts are likely to occur.</td>
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<td>Managerial levers</td>
<td>Organizational variables, control variables, and cultural variables are the levers managers can use to affect change in their organizations.</td>
<td>This is a more detailed model than the Business diamond and gives specific areas where IS can be used to manage the organization and to change it.</td>
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IS Strategy

- The plan an organization uses in providing information services.
- IS allows business to implement its business strategy.
- IS helps determine the company’s capabilities.
- Four key IS infrastructure components are key to IS strategy (Figure 1.9)
- These key components are sufficient to allow the general manager to assess critical IS issues.
FOOD FOR THOUGHT:
ECONOMICS OF
INFORMATION VS.
ECONOMICS OF THINGS

Information vs Things

- Every business is in the information business (Evans and Wurster).
- All forms of industry rely heavily on IS.
  - Mercedes cars computing power.
  - Marketing research, logistics, advertising, inventory management all rely on IS.
- Things wear out.
- Information never wears out.
- Figure 1.10 compares things with information.

<table>
<thead>
<tr>
<th>Things</th>
<th>Information</th>
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<tbody>
<tr>
<td>Wear out</td>
<td>Doesn’t wear out, but can become obsolete or untrue</td>
</tr>
<tr>
<td>Are replicated at the expense of the manufacturer</td>
<td>Is replicated at almost zero cost without limit</td>
</tr>
<tr>
<td>Exist in a tangible form</td>
<td>May exist in the ether</td>
</tr>
<tr>
<td>When sold, seller ceases to own</td>
<td>When sold, seller may still possess and sell again</td>
</tr>
<tr>
<td>Price based on production costs</td>
<td>Price based on value to consumer</td>
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Figure 1.10 Comparison of the economics of things with the economics of information
Summary

• Competitive advantage is gained through cost leadership, differentiation, or focus.
• The Information Systems Strategy Triangle shows that business strategy always drives organizational and information strategies.
• Hypercompetition defines competitive advantage as temporary.
• Understanding the influence of IS in organizational strategy is paramount.