INTRODUCTION

- Shouldn’t managers rely on experts when it comes to making the decisions on IS for their organizations?
  - Managers today need to know about their organization’s capabilities and uses of information as much as they need to understand how to obtain and budget financial resources.
  - A manager who does not understand the basics of managing and using information cannot expect to be successful in today’s business environment.
Figure I.1 - Reasons why business managers should participate in information systems decisions

Reasons:

- IS must be managed as a critical resource
- IS enables **change** in the way people work together.
- IS integrates with almost every aspect of business IS enables business opportunities and new strategies
- IS can be used to **combat** __business__ **challenges from competitors**

Technology vs. Technique

- **Technology**
  - is the making, usage, and knowledge of **tools**, **machines**, **techniques**, crafts, systems or methods of organization in order to solve a problem or perform a specific function.
  - It can also refer to the collection of such tools, machinery, and procedures.

- **Technique**
  - Personal habits
  - Work style
Planning is everything ...
What are Two Major Outputs for an organization?

Vision

Customers, market, competition
develop

Mission
guide

Strategy
create

Products, Services

Tactic

Essential Value Propositions for a Successful Company

• Business Model
• Core Competency
  – Outsourcing
  – Offshoring
• Execution
  – Set corporate goals and get executive sponsorship for the initiative
Information System Strategy Triangle

Strategic Triangle

**Business (Firm) Strategy**

Where: Is the business going and why?

**Organizational Strategy**

What: Is required?

**IS/IT Strategy**

How: It can be delivered?

- Needs and priorities
- Infrastructure and services

1. Architecture/Infrastructure
2. MIS organization (Sourcing, Governance etc.)
3. Funding
4. Project Management

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Information System Strategy Triangle

- A **business strategy** is a well-articulated vision of *where* the business *seeks to go* and *how it expects to get there*.
- An **organizational strategy** is the organization’s design, as well as the choices it makes to define, set up, coordinate, and control its work processes.
- **IS strategy** is the plan the organization uses in providing information systems and services.
The Information Systems Strategy Triangle

- Successful firms’ business strategy *drives* both their *organizational* and *IS* strategies:
- They must, therefore, seek to balance business, organizational, and IS strategies
- IS Strategy is affected by the other strategies a firm uses. Changes in IS strategy must be accompanied by constant adjustments in the other two
- IS strategy can have (sometimes unintentional) consequences on business and organizational strategies

Example

- Give an example in which a company fails to perform well because it does not align its three strategies.
- Any?
  - too much focus on IT
  - used to be considered as a “hardware” company (Mainframe, Mini-computers, PC, DOS etc.)
  - new division established in early 1990: GLOBAL BUSINESS SVCIE DIVISION
  - it now becomes a “Service” corp. – “TOTAL solution”
### IBM IS Strategy Triangle: Old Strategy

**Business (Firm) Strategy**

- **Revenue Creation** (from Hardware)

**The triangle becomes unbalanced!**

**Organizational Strategy**
- COMPLICATED and inflexible structure
- Too much focus on hardware

---

### IBM IS Strategy Triangle: New Strategy

**Business (Firm) Strategy**

- **Revenue Creation** (Service Corp.)

**The triangle is balanced!**

**Organizational Strategy**
- Re-structured/Re-engineered Organization (e.g., Global Business Service Division)

**IS/IT Strategy**
- IT is a supportive tool for entire organization worldwide

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IBM Global Business Services is organized into six service lines:
1) Strategy & Transformation
2) SAP Applications
3) Oracle Applications
4) Business Analytics and Optimization
5) Application Innovation Services
6) Application Management Services
Louis V. Gerstner, Jr. IBM former CEO and president (1992-2002)

Prior to joining IBM, Mr. Gerstner served for four years as chairman and chief executive officer of RJR Nabisco, Inc. This was preceded by an 11-year career at American Express Company, where he was president of the parent company and chairman and CEO of its largest subsidiary, American Express Travel Related Services Company. Prior to that, Mr. Gerstner was a director of the management consulting firm of McKinsey & Co., Inc., which he joined in 1965.

In January 2003 he assumed the position of chairman of The Carlyle Group, a global private equity firm located in Washington, DC.

HW

• Each Group finds out another example (not limited to the high-tech industry) and analyze it using the IS/IT Triangle Strategy model.
Another Example?

- Give another example (not in the high tech industry) in which a company fails to perform well because it does not align its three strategies.
- Any?
  - too much focus other than IT
  - inefficient organization structure
  - Inefficient IT usage

FORD IS Strategy Triangle: Old Strategy

- Business (Firm) Strategy
- Organizational Strategy
- IS/IT Strategy
  - TOO MANY BRANDS/FOCUSES
  - COMPLICATED and Inefficient structure
  - Inefficient and ineffective IT usage
FORD IS Strategy Triangle: New Strategy (ONE FORD)

ONE FORD STRATEGY:
One Team, One Plan, One Goal

Business (Firm) Strategy
A simple-sounding plan with big consequences

Organizational Strategy
SIMPLE and Efficient Structure

IS/IT Strategy
Efficient and Effective IT Usage and Support

ONE TEAM
People working together as a lean, global enterprise for automotive leadership, as measured by:
Customer, Employee, Dealer, Investor, Supplier,
Union/Council, and Community Satisfaction

ONE PLAN
• Aggressively restructure to operate profitably at the current demand and changing model mix
• Accelerate development of new products our customers want and value
• Finance our plan and improve our balance sheet
• Work together effectively as one team

ONE GOAL
An exciting viable Ford delivering profitable growth for all

Expected Behaviors
Foster Functional and Technical Excellence
• Know and have a passion for our business and our customers
• Demonstrate and build functional and technical excellence
• Ensure process discipline
• Have a continuous improvement philosophy and practice

Own Working Together
• Balance in skilled and motivated people working together
• Include everyone; respect, listen to, help and appreciate others
• Build strong relationships, be a team player; develop ourselves and others
• Communicate clearly, concisely and candidly

Role Model Ford Values
• Share initiative, courage, integrity and good corporate citizenship
• Improve quality, safety and sustainability
• Have a can do, find a way attitude and emotional resilience
• Enjoy the journey and each other have fun - never at others' expense

Deliver Results
• Best positively with our business reality; develop competing and comprehensive plans, while keeping an enterprise view
• Set high expectations and inspire others
• Make sound decisions using facts and data
• Hold ourselves and others responsible and accountable for delivering results and satisfying our customers
Prior to joining Ford in September 2006, Mulally served as executive vice president of The Boeing Company, and president and chief executive officer of Boeing Commercial Airplanes. In that role, he was responsible for all of the company’s commercial airplane programs and related services. Mulally also was a member of the Boeing Executive Council and served as Boeing’s senior executive in the Pacific Northwest.

Management style
Mulally negotiated four new agreements with United Auto Workers, which has brought down labor costs from $76/hour to $55/hour.
Striving for Competitive Advantage

- **Firm level**: Industry & Competitive Analysis
  - Competitive Forces Model (more details will be discussed in chap.2)
  - Competitive Strategy
  - D’Aveni’s Hypercompetition Model (7s)

- **Business level**
  - Value-Chain Analysis

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**PORTER’S FIVE COMPETITIVE FORCES MODEL**

- **NEW MARKET ENTRANTS**
  - Switching cost
  - Access to distribution channels
  - Economies of scale
  - Selection of supplier
  - Threat of backward integration

- **SUPPLIERS**
  - Cost-effectiveness
  - Market access
  - Differentiation of product or service

- **INDUSTRY COMPETITORS**
  - Bargaining power

- **CUSTOMERS**
  - Buyer selection
  - Switching costs
  - Differentiation

- **SUBSTITUTE PRODUCTS & SERVICES**
  - Redefine products and services
  - Improve price/performance
Business Strategy Frameworks

- Porter’s Generic Strategies Framework (and its variants)
- Hypercompetition and the New 7-Ss framework (D’Aveni)

Figure 1.2: Porter’s Generic Strategy Framework – 3 Strategies for achieving Competitive Advantage
Porter’s Competitive Advantage Strategies

- **Cost leadership**: be the cheapest
- **Differentiation**: focus on making your product and/or service stand out for non-cost reasons
- **Focus**: occupy narrow market niche where the products/services can stand out by virtue of their cost leadership or differentiation.

Business Strategies and its Competitive Advantage

<table>
<thead>
<tr>
<th>Competitive Scope</th>
<th>Lower Cost Position</th>
<th>Uniqueness Perceived by Customer</th>
<th>Competitive Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry wide (Broad Target)</td>
<td>Cost Leadership</td>
<td>Differentiation</td>
<td>Innovation</td>
</tr>
<tr>
<td>Particular Segment only (Narrow Target)</td>
<td>Cost Focus</td>
<td>Differentiation Focus</td>
<td>Alliance</td>
</tr>
</tbody>
</table>

- Industrial economy
- Knowledge-based economy

Dr. Chen, Information Systems – Theory and Practices
Hypercompetition and the New 7-S’s framework (D’Aveni)

- Every advantage is eroded.
- Sustaining an advantage uses too much time and resources that can be a deadly distraction.
- The goal should be **disruption**, not **sustainability** of advantage.
- Initiatives are achieved with a series of small steps.
- Hypercompetition occurs when technologies or offerings are so new that standards and rules are influx, resulting in competitive advantages that cannot be sustained. It is characterized by **intense** and **rapid** competitive moves, in which competitors must move quickly to build new advantages and **erode** the advantages of their rivals.

D’Aveni’s Disruption and 7-S’s

Old 7Ss:
- structure, strategy, system, style, skills, staff, and superordinate goals.

Vision for Disruption
Identifying and creating opportunities for temporary advantage through understanding
- Stakeholder satisfaction
- Strategic Soothsaying
  directed at identifying new ways to serve existing customers better or new customers that are not currently served by others

Market Disruption

Capability for Disruption
Sustaining momentum by developing flexible capacities for
- Speed
- Surprise
  That can be applied across actions to Build temporary advantage

Tactics for Disruption
Seizing the initiative to gain advantage by
- Shifting the rules
- Signaling
- Simultaneous and sequential strategic thrusts
  With actions that shape, mold, or influence the direction or nature of the competitor’s response
Example:

- At General Electric, Jack Welch, implemented a DYB (“Destroy Your Business”) approach by placing employees in the shoes of competitors to highlight weaknesses and find fresh ways of meeting customer needs.
- Similarly GE’s Medical Systems Division used DYB to respond to the challenges posed by the Internet.

D’Aveni’s 7-S & GE

<table>
<thead>
<tr>
<th>Approach</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior stakeholder satisfaction</td>
<td>Understanding how to maximize customer satisfaction by adding value strategically</td>
</tr>
<tr>
<td>Strategic soothsaying</td>
<td>Seeking out new knowledge that can predict or create new windows of opportunity</td>
</tr>
<tr>
<td>Positioning for speed</td>
<td>Preparing the organization to react as quickly as possible</td>
</tr>
<tr>
<td>Positioning for surprise</td>
<td>Preparing the organization to respond to the marketplace in a manner that will surprise competitors</td>
</tr>
<tr>
<td>Shifting the rules of competition</td>
<td>Finding new ways to serve customers which transform the industry</td>
</tr>
<tr>
<td>Signaling strategic intent</td>
<td>Communicating the intended actions of a company, in order to stall responses by competitors</td>
</tr>
<tr>
<td>Simultaneous and sequential strategic thrusts</td>
<td>Taking a series of steps designed to stun and confuse competitors in order to disrupt or block their efforts</td>
</tr>
</tbody>
</table>
D’Aveni’s Hypercompetition Model (cont.)

• Hypercompetition Strategies for Disruption
  – 1. **Stakeholder satisfaction** is key to winning each dynamic interaction with competitors
  – 2. **Strategic soothsaying** is the process for seeking out new **knowledge** for predicting what customers will want in the future
  – 3. **Speed** is crucial to take advantage of opportunities and respond to counterattacks by competitors
  – 4. **Surprise** enhances a company’s ability to stun a competitor, to build up superior position before a competitor can counterattack.

• Hypercompetition Tactics for Disruption
  – 1. **Shifting rules** of the market to create tremendous **disruption** for competitors.
  – 2. **Signals** out to (a) make announcements of strategic intent to dominate a marketplace, or (b) manipulate the future moves of rivals.
  – 3. **Simultaneous or sequential strategic thrusts** using several moves to **mislead** or **confuse** a competitor.

Speed of the disruptive turbulence created by hypercompetition is driven by **globalization**, more appealing substitute products, more fragmented customer tastes, deregulation, and the invention of new business models—all contributing to structural disequilibrium, falling barriers to market entry, and the dethronement of industry leaders.

Disruptive versus Sustaining Technology

• **Sustaining technologies** – produces an improved product customers are eager to buy, such as a faster car or larger hard drive
  – Sustaining technologies tend to provide us with better, faster, and cheaper products in established markets
  – Sustaining technologies virtually never lead in markets opened by new and disruptive technologies

• **Disruptive technologies** – a new way of doing things that **initially** does **not** meet the needs of existing customers
  – Disruptive technologies redefine the competitive playing fields of their respective markets
  – Disruptive technologies tend to open new markets and destroy old ones
  – Disruptive technologies typically cut into the low end of the marketplace and eventually evolve to displace high-end competitors and their reigning technologies
Disruptive versus Sustaining Technology

• Please name two (or more) of Disruptive and Sustaining Technologies on the market now?

“Be fearful when others are greedy, and be greedy when others are fearful.”

-- Warren E. Buffett, CEO, Berkshire Hathaway, Inc.
BRIEF OVERVIEW OF ORGANIZATIONAL STRATEGIES

Figure 1.6 Summary of Key Strategy Frameworks

- **Generic Strategies**: Competitive Advantage (CA) through low cost, differentiation or focus
- **Hypercompetition**: CA is temporary, created through speed and aggression in the market
### Porter’s Model vs. Hypercompetition Model

<table>
<thead>
<tr>
<th></th>
<th>Industries</th>
<th>Competitive Advantage (Characteristics)</th>
<th>Competitive Advantage (How to)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Porter’s Model</strong></td>
<td>Relatively <strong>stable</strong></td>
<td>Establish a strong, long-term position and defend it.</td>
<td>Attain a fit with the environment as in traditional markets</td>
</tr>
<tr>
<td><strong>Hyper-competition Model</strong></td>
<td><strong>Dynamic</strong></td>
<td>Short-lived, take advantage of any small window of opportunity that arises (thru speed and aggression)</td>
<td>1) change rules of competition 2) create disruptions (during which temporary advantages can be exploited)</td>
</tr>
</tbody>
</table>

### Figure I.6 Business Level: The Value Chain

- **Firm Infrastructure**
  - (general management, accounting, finance, strategic planning)
- **Human Resources Management**
  - (recruiting, training, development)
- **Technology Development**
  - (R&D, product and process improvement)
- **Procurement**
  - (purchasing of raw materials, machines, supplies)

**Primary Activities**
- Inbound Logistics (raw materials handling and warehousing)
- Operations (machining, assembling, testing)
- Outbound Logistics (warehousing and distribution of finished product)
- Marketing and Sales (advertising, promotion, pricing, channel relations)
- Service (installation, repair, parts)

**Competitive Advantage**

**Profit Margin**

**Value**
Manufacturing Industry Value Chain
Product and Service Flow

Support Activities

Administrative and Other Indirect Value Added

Primary Activities

Research and Development → Engineering → Production and Manufacturing → Marketing → Sales and Distribution → Service

Major Issues for the Next Society

1. Internationalization  4I + 1K
2. Technology           Internationalization
                         Integration
                         Innovation
3. Population           Information
                         and
                         Knowledge
What is Web 2.0?

- "Web 2.0" refers to the second generation of web development and web design.
  - It is characterized as facilitating communication, information sharing, interoperability, user-centered design and collaboration on the World Wide Web. It has led to the development and evolution of web-based communities, hosted services, and web applications.
  - Examples include social-networking sites, video-sharing sites, wikis, blogs, mashups and folksonomies.
  - Web 2.0 is the business revolution in the computer industry caused by the move to the Internet as a platform, and an attempt to understand the rules for success on that new platform.

Source: http://en.wikipedia.org/wiki/Web_2.0

HWs to be done by next class

- HBP case –
  - *Swimming in the Virtual Community Pool with PlentyofFish*
  - *Make sure you know what you have to do and turn in next class*
- Collaboration Software (see next slide and detailed instruction on Bb)
An extra HW: gmail and google accounts

• You are required to create and complete the following before next class:
  – a gmail (email) account automatically provides you a google account
  – since GU email is now “powered” by gmail, you only need to create another google email account
  – you then have “two” gmail (Google) accounts
  – Complete “Collaboration Software Project” and
  – click “Assignments” on the Bb and select “Collaboration Software Project” for detailed instruction of how to submit your answer to the instructor.

File name on your group work

• Please name your group files as follows:
  • mbus626-SouthWest Airlines (.pptx or .docx)
End of Chapter 1