House keeping

- Lab: ECL2.005 available for use by ICT332 at 14:30 – 16:30. Will be used for Practical, Demo and Presentation
- Reminder:
  - Project – Form a team with up to 3 students.
  - Start discuss possible EC website
  - Project Abstract Presentation Week 4 (12th March, 2007)

Topic 2: E-Business Models and Concepts

- Teaching Objectives:
  - Identify the key components of e-commerce business models
  - Describe the major B2C business models
  - Describe the major B2B business models
  - Describe business models in other emerging areas of e-commerce
  - Explain key business concepts and strategies applicable to e-commerce

Chapter 2
E-commerce Business Models and Concepts

Online Groceries: Up from the Embers

E-commerce business. technology. society.
Second Edition

Kenneth C. Laudon
Carol Guercio Traver
Online Groceries: Up from the Embers

Class Discussion

Why do you think Webvan.com failed?
Why are more traditional grocery chains succeeding today?
Why would online customers pay the same prices as in the stores plus pay delivery charges? What’s the benefit to the customer?
What are the important success factors for FreshDirect?
Do you think FreshDirect would work in your town?

Failure of Webvan.com raised serious questions about online groceries as viable business model
However, by 2003, some online grocers are experiencing 40% annual growth rates
Traditional firms experiencing success:
  - Safeway Stores
  - Royal Ahold (Stop & Shop; Peapod.com)
  - Tesco

FreshDirect: Focuses on fresh (perishable), high-quality items at 25% below NYC grocer prices. Value proposition – convenience and time savings, and also high quality at lower prices
E-commerce Business Models—Introduction

- **Business model** – set of planned activities designed to result in a profit in a marketplace
- **Business plan** – document that describes a firm’s business model
- **E-commerce business model** – aims to use and leverage the unique qualities of Internet and Web

**Value Proposition**

- **Value proposition** defines how a company’s product or service *fulfills the needs of customers*
- **Questions to ask:**
  - Why will customers choose to do business with your firm instead of another?
  - What will your firm provide that others do not or cannot?
- **Examples of successful value propositions include:**
  - Personalization/customization
  - Reduction of product search costs
  - Reduction of price discover costs
  - Facilitation of transactions by managing product delivery

**Revenue Model**

- **Revenue model** describes how the firm will *earn revenue, generate profits, and produce a superior return on invested capital*
- **Terms financial model and revenue model often used interchangeably**
- **Major types:**
  - Advertising revenue model
  - Subscription revenue model
  - Transaction fee revenue model
  - Sales revenue model
  - Affiliate revenue model

**Table 2.1: Key Ingredients of a Business Model**

<table>
<thead>
<tr>
<th>Components</th>
<th>Key Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value proposition</td>
<td>Why should the customer buy from you?</td>
</tr>
<tr>
<td>Revenue model</td>
<td>How will you earn money?</td>
</tr>
<tr>
<td>Market opportunity</td>
<td>What marketplace do you intend to serve, and what is its size?</td>
</tr>
<tr>
<td>Competitive environment</td>
<td>Who else occupies your intended marketplace?</td>
</tr>
<tr>
<td>Competitive advantage</td>
<td>What special advantages does your firm bring to the marketplace?</td>
</tr>
<tr>
<td>Market strategy</td>
<td>How do you plan to promote your products or services to attract your target audience?</td>
</tr>
<tr>
<td>Organizational development</td>
<td>What types of organizational structures within the firm are necessary to carry out the business plan?</td>
</tr>
<tr>
<td>Management team</td>
<td>What kinds of experiences and background are important for the company’s leaders to have?</td>
</tr>
</tbody>
</table>
Subscription Revenue Model

- Web site that offers users content or services charges a subscription fee for access to some or all of its offerings
- Examples:
  - Consumer Reports Online
  - Yahoo! Platinum
  - Yahoo! Plus

Transaction Fee Revenue Model

- Company that receives a fee for enabling or executing a transaction
- Examples:
  - eBay.com
  - E-Trade.com
Sales Revenue Model

- Company derives revenue by selling goods, information, or services to customers
- Examples:
  - Amazon.com
  - LLBean.com
  - Gap.com
Affiliate Revenue Model

- Sites that steer business to an “affiliate” receive a referral fee or percentage of the revenue from any resulting sales.
- Example:
  - MyPoints.com

Market Opportunity

- Refers to a company’s intended marketspace and the overall potential financial opportunities available to the firm in that marketspace.
- Marketspace – the area of actual or potential commercial value in which a company intends to operate.
- Realistic market opportunity is defined by revenue potential in each of market niches in which company hopes to compete.

<table>
<thead>
<tr>
<th>REVENUE MODEL</th>
<th>EXAMPLES</th>
<th>REVENUE SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>Yahoo.com</td>
<td>Fees from advertisers in exchange for advertisements</td>
</tr>
<tr>
<td>Subscription</td>
<td>WSJ.com, Consumerreports.org, Sportline.com</td>
<td>Fees from subscribers in exchange for access to content or services</td>
</tr>
<tr>
<td>Transaction Fee</td>
<td>eBay.com, E-Trade.com</td>
<td>Fees (commissions) for enabling or executing a transaction</td>
</tr>
<tr>
<td>Sales</td>
<td>Amazon.com, L.L.Bean.com, Gap.com, Sears.com, J.C. Penny.com</td>
<td>Sales of goods, information, or services</td>
</tr>
<tr>
<td>Affiliate</td>
<td>MyPoints.com</td>
<td>Fees for business referrals</td>
</tr>
</tbody>
</table>

Marketspace and Market Opportunity in the Software Training Market

Figure 2.1, Page 67

Instructor-Led Training $49 Billion
Small Business $19 Billion
Small Business $8 Billion
Computer-Based Training $21 Billion
Fortune 500 $50 Billion
Fortune 500 $15 Billion

Market opportunity is defined by revenue potential in each of market niches in which company hopes to compete.
Competitive Environment

- Refers to the other companies selling similar products and operating in the same marketspace.
- Influenced by:
  - how many competitors are active
  - how large their operations are
  - what market share for each competitor is
  - how profitable these firms are
  - how they price their products

Competitive Environment (cont’d)

- Direct competitors – companies that sell products or services that are very similar and into the same market segment.
  - Example: Priceline.com and Travelocity.com
- Indirect competitors – companies that may be in different industries but still compete indirectly because their products can substitute for one another.
  - Example: CNN.com and ESPN.com
**Competitive Advantage**
- Achieved when firm can produce a superior **product** and/or bring product to market at a **lower price** than most, or all, of competitors
- Firms achieve competitive advantage when they are able to obtain **differential access** to the factors of production that are denied to competitors
- **Asymmetry** – when one participant in a market has more resources than others

**Types of competitive advantage include:**
- **First mover advantage** – results from a firm being first into a marketplace
- **Unfair competitive advantage** – occurs when one firm develops an advantage based on a factor that other firms cannot purchase
- Companies leverage their competitive assets when they use their competitive advantages to achieve more advantage in surrounding markets

**Market Strategy**
- A plan that details how a company intends to enter a new market and attract customers
- Best business concepts will fail if not properly marketed to potential customers

**Organizational Development**
- Describes how the company will organize the work that needs to be accomplished
- Work is typically divided into functional departments
- Move from generalists to specialists as the company grows

**Management Team**
- Employees of the company responsible for making the business model work
- Strong management team gives instant credibility to outside investors
- A strong management team may not be able to salvage a weak business model, but should be able to change the model and redefine the business as it becomes necessary

**Categorizing E-commerce Business Models: Some Difficulties**
- No one correct way
- We categorize business models according to e-commerce sector (B2C, B2B, C2C)
- Type of e-commerce technology used can also affect classification of a business model
- Some companies use multiple business models
B2C Business Models: Portal

- Offers powerful search tools plus an integrated package of content and services
- Typically utilizes a combined subscription/advertising revenues/transaction fee model
- May be general or specialized (vortal)

B2C Business Models: E-tailer

- Online version of traditional retailer
- Types include:
  - Virtual merchants (online retail store only)
  - Clicks and bricks (online distribution channel for a company that also has physical stores)
  - Catalog merchants (online version of direct mail catalog)
  - Manufacturer-direct (manufacturer selling directly over the Web)

B2C Business Models: Transaction Broker

- Processes online transactions for consumers
- Primary value proposition – saving of time and money
- Typical revenue model – transaction fee
- Industries using this model:
  - Financial services
  - Travel services
  - Job placement services

B2C Business Model: Market Creator

- Uses Internet technology to create markets that bring buyers and sellers together
- Examples:
  - Priceline.com
  - eBay.com
- Typically uses a transaction fee revenue model
B2C Business Model: Service Provider

- Offers services online
- Value proposition – valuable, convenient, time-saving, low-cost alternatives to traditional service providers
- Revenue models – subscription fees or one-time payment

B2C Business Models: Community Provider

- Sites that create a digital online environment where people with similar interests can transact, communicate, and receive interest-related information.
- Typically rely on a hybrid revenue model
- Examples:
  - iVillage.com
  - Friendster.com
  - About.com
Insight on Technology: Search Engine Wars, Round 3
Class Discussion
- How many of you use Google, Yahoo!, or MSN search engines? Does the class differ from the overall Web population?
- Why do you use a particular search engine?
- Why are search engines so profitable?
- Why do people stay longer at Yahoo and MSN.com when compared to Google? Does this give them an advantage?

Insight on Technology: Google: In Search of Profits, Accepts Paid Listings
- Founded in 1998 by 2 Stanford grad students
- Focused solely on search engine business in contrast to Yahoo, MSN, AOL
- Almost missed major market shift in way companies advertise on Web – paid search listings, pioneered by GoTo.com (now Overture.com) in 1999
- 2000, introduced tiny paid advertising boxes on the right of Search Results page; Feb 2002, began to allow firms to bid for placement and added sponsored links at top of Search Results page
- 2003, Yahoo buys Inktomi and Overture (which owns AltaVista) – new questions as to whether Google will remain the leading search engine

E-distributor
- Company that supplies products and services directly to individual businesses
- Owned by one company seeking to serve many customers
- Examples:
  - Grainger.com

E-procurement Companies
- Create and sell access to digital electronic markets
- B2B service provider is one type – offer purchasing firms sophisticated set of sourcing and supply chain management tools
- Application service providers a subset of B2B service providers
- Examples:
  - Ariba
Exchanges (B2B Hubs)

- An electronic digital marketplace where suppliers and commercial purchasers can conduct transactions
- Usually owned by independent firms whose business is making a market
- Generate revenue by charging transaction fees
- Usually serve a single vertical industry
- Number of exchanges has fallen to around 700 in 2003, and around 200 in 2005

Insight on Business: C02E.com: Global Pollution Market

- Kyoto Protocol includes provisions for use of markets to trade pollution rights as one means to reduce emissions
- C02e.com is one of the markets that has been created in response — is a worldwide global trading platform for greenhouse gas pollution rights
- Chicago Climate Exchange is another example
- So far, about $200 million tons of greenhouse gas rights have been traded on various B2B exchanges, and volumes are growing about 50% a year/

Insight on Business: Onvia Evolves

Class Discussion

- Why did Onvia have a difficult time with its early business model?
- What type of B2B business model is Onvia using now? Is it still an "exchange"?
- Why is the government market succeeding? What services does Onvia provide to government buyers? To small business sellers?
- How does Onvia make money?
Industry Consortia

- Industry-owned vertical marketplaces that serve specific industries
- Horizontal marketplaces, in contrast, sell specific products and services to a wide range of industries
- Leading example: Exostar

Private Industrial Networks

- Digital networks (usually, but not always Internet-based) designed to coordinate the flow of communications among firms engaged in business together
- Single firm network: the most common form (example – Walmart)
- Industry-wide networks: often evolve out of industry associations (example – Agentrics)
Consumer-to-Consumer (C2C) Business Models

- Provide a way for consumers to sell to each other, with the help of an online marketmaker
- Best example: eBay.com

Peer-to-Peer (P2P) Business Models

- Links users, enabling them to share files and common resources without a common server
- Challenge is for P2P ventures to develop viable, legal business models

M-Commerce Business Models

- Takes traditional e-commerce business models and leverages emerging new wireless technologies
- Key technologies are telephone-based 3G; Wi-Fi; and Bluetooth
- To date, a disappointment in the U.S.
- However, technology platform continues to evolve

Insight on Society: Is Privacy Possible in a Wireless World

- Capabilities of wireless networks (location services; E911) pose privacy threats
- Wireless industry calling for self-regulation to avoid government-imposed regulation
- How to implement consumer choice controversial (opt-in vs. opt-out)
- Some possible technology solutions

E-commerce Enablers: The Gold Rush Model

- Internet infrastructure companies: Companies whose business model is focused on providing infrastructure necessary for e-commerce companies to exist, grow and prosper
- Provide hardware, software, networking, security, e-commerce software systems, payment systems, databases, hosting services, etc.

<table>
<thead>
<tr>
<th>TABLE 2.6</th>
<th>E-COMMERCE ENABLERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INFRASTRUCTURE</strong></td>
<td><strong>PLAYERS</strong></td>
</tr>
<tr>
<td>Hardware: Web Servers</td>
<td>IBM, HP/Compaq, Dell, Sun</td>
</tr>
<tr>
<td>Software: Operating Systems and Server Software</td>
<td>Microsoft, RedHat, Linux, Sun, Apache</td>
</tr>
<tr>
<td>Networking: Routers</td>
<td>Cisco, 3Com, Lucent</td>
</tr>
<tr>
<td>Security: Encryption Software</td>
<td>VeriSign, CheckPoint, PGP Corporation</td>
</tr>
<tr>
<td>E-commerce Software Systems (E2C, B2B)</td>
<td>IBM, Microsoft, Commercent, Ariba, BroadVision</td>
</tr>
<tr>
<td>Streaming Media Solutions</td>
<td>RealNetworks, Microsoft, Apple</td>
</tr>
<tr>
<td>Customer Relationship Management Software</td>
<td>PeopleSoft, Siebel, SAP</td>
</tr>
<tr>
<td>Payment Systems</td>
<td>Vensign, PayPal, CyberCash</td>
</tr>
<tr>
<td>Performance Enhancement</td>
<td>Akamai, CacheFlow, Inktomi, Ciena</td>
</tr>
<tr>
<td>Databases</td>
<td>Oracle, IBM, Microsoft, Sybase</td>
</tr>
<tr>
<td>Hosting Services</td>
<td>Interland, IBM, WebIntelliX</td>
</tr>
</tbody>
</table>
## How the Internet and the Web Change Business: Strategy, Structure, and Process

- Important to understand how Internet and Web have changed business environment, including industry structures, business strategies, and industry and firm operations.

## Industry Structure

- E-commerce changes the nature of players in an industry and their relative bargaining power by changing:
  - the basis of competition among rivals
  - the barriers to entry
  - the threat of new substitute products
  - the strength of suppliers
  - the bargaining power of buyers

## Industry Value Chains

- A set of activities performed in an industry by suppliers by suppliers, manufacturers, transporters, distributors, and retailers that transform raw inputs into final products and services.
  - Reduces the cost of information and other transactional costs.

## Table 2.7: Seven Unique Features of E-Commerce Technology

<table>
<thead>
<tr>
<th>Feature</th>
<th>Selected Impacts on Business Environment</th>
</tr>
</thead>
</table>
| Utility               | Alters industry structure by creating new marketing channels and expanding size of overall market.
| Global Reach          | Changes industry structure by lowering barriers to entry. |
| Universal Standards   | Changes industry structure by lowering barriers to entry and intensifying competition within an industry. |
| Richness              | Changes industry structure by reducing threats of substitutes. |
| Interactive           | Changes industry structure by reducing threats of substitutes. |
| Personalization/Customization | Changes industry structure by reducing threats of substitutes. |
| Information Density   | Changes industry structure by reducing threats of substitutes. |

## How the Internet Influences Industry Structure

- Reduces the cost of information and other transactional costs.
- Changes industry structure by creating new marketing channels.
- Changes industry structure by lowering barriers to entry.
- Changes industry structure by lowering barriers to entry and intensifying competition within an industry.
- Changes industry structure by reducing threats of substitutes.
- Changes industry structure by reducing threats of substitutes and entry.
- Changes industry structure by reducing threats of substitutes and entry.
- Changes industry structure by reducing threats of substitutes and entry.
- Changes industry structure by reducing threats of substitutes and entry.
- Changes industry structure by reducing threats of substitutes and entry.
- Changes industry structure by reducing threats of substitutes and entry.
- Changes industry structure by reducing threats of substitutes and entry.

## E-commerce and Industry Value Chains

- Suppliers
- Manufacturers
- Distributors
- Retailers
- Customers
- Supply Chain Management Systems
- Inventory Management Systems
- Efficient Customer Response Systems
- Transportation Management Systems
- Alternative Direct Channels (e.g., The Web)
Firm Value Chains

- A set of activities that a firm engages in to create final products from raw inputs
- Increases operational efficiency

E-commerce and Firm Value Chains

Firm Value Webs

- A networked business ecosystem that uses Internet technology to coordinate the value chains of business partners within an industry, or within a group of firms
- Coordinates a firm’s suppliers with its own production needs using an Internet-based supply chain management system

Internet-Enabled Value Web

Case Study: Priceline.com: Can This Business Model Be Saved?

Business Strategy

- A set of plans for achieving superior long-term returns on the capital invested in a business firm (i.e., a plan for making a profit in a competitive environment)
- Four generic strategies
  - Differentiation
  - Cost
  - Scope
  - Focus
Case Study: Priceline.com Can This Business Model Be Saved?

- Priceline.com – one of Web’s most well-known companies
- What went wrong with a business model that seemed so promising?
  - Financial climate
  - Costs
  - Extensibility
- New strategy: select expansion with stringent financial controls; refocus on core business
- Strategic moves appear to have shored up core business, but questions about future still exist – travel industry declines due to terrorism, severe competition

Case Study Questions

- What are the core components of Priceline.com’s business model?
- Do you think Priceline will ultimately succeed or fail? Why?
- How has Priceline (and similar online services) impacted the travel services industry?