CPET 581 E-Commerce & Business Technologies

Online Retail and Services

Topics

- The Retail Industry Sector and Major Trend in Online Retail
- E-Commerce Retail: the Vision
- E-Tailing Business Models
- Multi-Channel Integration
- Analyzing the Viability of Online Firms
  - Strategic Analysis Factors
  - Financial Analysis Factors
- Common Themes in Online Retailing
- Case Study: E-Commerce in Action - Amazon.com

References:

Paul I-Hai Lin, Professor
http://www.etcs.ipfw.edu/~lin
A Specialty Course for M.S. in Technology IT/Advanced Computer Applications Program Purdue University Fort Wayne Campus
Topics

- The Service Sector
- Service Industries
  - Online Financial Services
  - Online Banking and Brokerage
  - Financial Portals and Account Aggregators
  - Online Mortgage and Lending Services
  - Online Insurance Services
  - Online Real Estate Services
  - Online Travel Services
  - Online Career Services

Blue Nile Sparkles for Your Cleopatra

- Why is selling (or buying) diamonds over the Internet difficult?
- How has Blue Nile built its supply chain to keep costs low?
- How has Blue Nile reduced consumer anxiety over online diamond purchases?
- What are some vulnerabilities facing Blue Nile?
- Would you buy a $5,000 engagement ring at Blue Nile?
The Retail Sector

- Most important theme in online retailing is effort to integrate online and offline operations
- U.S. retail market accounts for $10.7 trillion (70%) of total GDP
- Personal consumption:
  - Services: 65%
  - Nondurable goods: 25%
  - Durable goods: 10%
- “Goods” vs. “services” ambiguity

The Retail Industry

- 7 segments
  - Durable Goods
  - General Merchandise
  - Food & Beverage
  - Special Stores
  - Gasoline and Fuel
  - Mail order/Telephone Order (MOTO)
  - Online Retail

![Composition of the U.S. Retail Industry](chart)
Major Trends in Online Retail, 2011–2012

- Growth in social shopping
- Online retail still fastest growing retail channel
- Buying online a normal, mainstream experience
- Selection of goods increases, includes luxury goods
- Informational shopping for big-ticket items expands
- Specialty retail sites show most rapid growth
- Increased use of interactive, Web 2.0 marketing

The Online Retail Sector Today

- Smallest segment of retail industry (5%–6%)
- Growing at faster rate than offline segments
- Revenues have resumed growth
- Around 72% of Internet users bought online in 2011
- Primary beneficiaries:
  - Established offline retailers with online presence (e.g., Staples)
  - First mover dot-com companies (e.g., Amazon)
FIGURE 9.2  ONLINE RETAIL AND B2C E-COMMERCE IS ALIVE AND WELL

<table>
<thead>
<tr>
<th>Year</th>
<th>Online Retail</th>
<th>Total B2C</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>142</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>144</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>165</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>188</td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td>209</td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td>229</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>240</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>270</td>
<td></td>
</tr>
</tbody>
</table>

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TABLE 9.2  ADVANTAGES AND CHALLENGES TO ONLINE RETAIL

<table>
<thead>
<tr>
<th>ADVANTAGES</th>
<th>CHALLENGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower supply chain costs by aggregating demand at a single site and increasing purchasing power</td>
<td>Consumer concerns about the security of transactions</td>
</tr>
<tr>
<td>Lower cost of distribution using Web sites rather than physical stores</td>
<td>Consumer concerns about the privacy of personal information given to Web sites</td>
</tr>
<tr>
<td>Ability to reach and serve a much larger geographically distributed group of customers</td>
<td>Delays in delivery of goods when compared to store shopping</td>
</tr>
<tr>
<td>Ability to react quickly to customer tastes and demand</td>
<td>Inconvenience associated with return of damaged or exchange goods</td>
</tr>
<tr>
<td>Ability to change prices nearly instantly</td>
<td>Overcoming lack of consumer trust in online brand names</td>
</tr>
<tr>
<td>Ability to rapidly change visual presentation of goods</td>
<td>Added expenses for online photography, video and animated presentations</td>
</tr>
<tr>
<td>Avoidance of direct marketing costs of catalogs and physical mail</td>
<td>Online marketing costs for search, e-mail, and displays</td>
</tr>
<tr>
<td>Increased opportunities for personalization, customization</td>
<td>Added complexity to product offerings and customer service</td>
</tr>
<tr>
<td>Ability to greatly improve information and knowledge delivered to consumer</td>
<td>Greater customer information can translate into price competition and lower profits</td>
</tr>
<tr>
<td>Ability to lower consumers' overall market transaction costs</td>
<td></td>
</tr>
</tbody>
</table>
Multi-Channel Integration

- Integrating Web operations with traditional physical store operations
  - Provide integrated shopping experience
  - Leverage value of physical store

- Types of integration
  - Online order, in-store pickup
  - In-store kiosk or clerk Web order, home delivery
  - Web promotions to drive customers to stores
  - Gift cards usable in any channel

- Increasing importance of mobile devices

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<table>
<thead>
<tr>
<th>TABLE 9.3</th>
<th>RETAIL E-COMMERCE: MULTI-CHANNEL INTEGRATION METHODS</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTEGRATION TYPE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>Online order, in-store pickup</td>
<td>Probably one of the first types of integration. When items are out of stock online, customer is directed to physical store network inventory and store location.</td>
</tr>
<tr>
<td>Online order, store directory, and inventory</td>
<td></td>
</tr>
<tr>
<td>In-store kiosk Web order, home delivery</td>
<td>When retail store is out of stock, customer orders in store and receives at home. Presumes customer is Web familiar.</td>
</tr>
<tr>
<td>In-store retail clerk Web order, home delivery</td>
<td>Similar to above, but the retail clerk searches Web inventory if local store is out of stock as a normal part of the in-store checkout process.</td>
</tr>
<tr>
<td>Web order, in-store returns, and adjustments</td>
<td>Defective or rejected products ordered on the Web can be returned to any store location.</td>
</tr>
<tr>
<td>Online Web catalog</td>
<td>Online Web catalog supplements offline physical catalog and often the online catalog has substantially more product on display.</td>
</tr>
<tr>
<td>Manufacturers use online Web site promotions to drive customers to their distributors’ retail stores</td>
<td>Consumer product manufacturers such as Colgate-Palmolive and Procter &amp; Gamble use their Web channels to design new products and promote existing product retail sales.</td>
</tr>
<tr>
<td>Gift card, loyalty program points can be used in any channel</td>
<td>Recipient of gift card, loyalty program points can use it to purchase in-store, online, or via catalog, if offered by merchant.</td>
</tr>
</tbody>
</table>

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Analyzing the Viability of Online Firms

- Economic viability:
  - Ability of firms to survive as profitable business firms during specified period (i.e., 1–3 years)

- Two business analysis approaches:
  - Strategic analysis
    - Focuses on both industry as a whole and firm itself
  - Financial analysis
    - How firm is performing

Strategic Analysis Factors

- **Key industry strategic factors**
  - Barriers to entry
  - Power of suppliers
  - Power of customers
  - Existence of substitute products
  - Industry value chain
  - Nature of intra-industry competition

- Firm-specific factors
Strategic Analysis Factors

- Key industry strategic factors
- **Firm-specific factors**
  - Firm value chain
  - Core competencies
  - Synergies
  - Technology
  - Social and legal challenges

Financial Analysis Factors

- **Statements of Operations**
  - Revenues
  - Cost of sales
  - Gross margin
  - Operating expenses
  - Operating margin
  - Net margin

- **Balance sheet**
  - Assets, current assets
  - Liabilities, current liabilities, long-term debt
  - Working capital
E-tailing Business Models

- Virtual merchant
  - Amazon
- Bricks and clicks
  - Walmart, J.C. Penney, Sears
- Catalog merchant
  - Lands’ End, L.L. Bean, Victoria’s Secret
- Manufacturer-direct
  - Dell

E-commerce in Action: Amazon.com

- Vision:
  - Earth’s biggest selection
  - Most customer-centric
- Business model:
  - Retail
  - Third Party Merchants
  - Amazon Web Services (merchant and developer services)
- Financial analysis:
  - Continued explosive revenue growth, profitable
E-commerce in Action: Amazon.com

- Strategic analysis/business strategy:
  - Maximize sales volume
  - Cut prices
  - Acquisitions
  - Mobile shopping
  - Kindle

- Strategic analysis/competition:
  - Online and offline general merchandisers
  - Web services

- Strategic analysis/technology:
  - Largest, most sophisticated collection of online retailing technologies available

- Strategic analysis/social, legal:
  - Sales tax, patent lawsuits

- Future prospects:
  - In 2010, net sales grew 40%, and significant gains thus far in 2011
  - Ranks among top five in customer service, speed, accuracy
The Service Sector: Offline and Online

- Service sector:
  - Largest and most rapidly expanding part of economies of advanced industrial nations
  - Concerned with performing tasks in and around households, business firms, and institutions
    - Includes doctors, lawyers, accountants, business consultants, etc.
  - Employs 4 out of 5 U.S. workers
  - 75% of economic activity

Service Industries

- Major service industry groups:
  - Finance
  - Insurance
  - Real estate
  - Travel
  - Professional services—legal, accounting
  - Business services—consulting, advertising, marketing, etc.
  - Health services
  - Educational services
**Figure 9.3 Industry Consolidation and Integrated Financial Services**

- **Multi-channel vs. Pure Online Financial Service Firms**

  - Online consumers prefer multi-channel firms with physical presence
  - Multi-channel firms
    - Growing faster than pure online firms
    - Lower online customer acquisition costs
  - Pure online firms
    - Rely on Web sites, advertising to acquire customers
    - Users utilize services more intensively
    - Users shop more, are more price-driven and less loyal
### Financial Portals

- **Financial portals**
  - Comparison shopping services, independent financial advice, financial planning
  - Revenues from advertising, referrals, subscriptions
  - e.g., Yahoo! Finance, Quicken.com, MSN Money

#### TABLE 9.7  TOP ONLINE BROKERAGES, 2011

<table>
<thead>
<tr>
<th>FIRM</th>
<th>NUMBER OF UNIQUE VISITORS (IN MILLIONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fidelity.com</td>
<td>6.04</td>
</tr>
<tr>
<td>Scottrade</td>
<td>2.38</td>
</tr>
<tr>
<td>Charles Schwab</td>
<td>2.31</td>
</tr>
<tr>
<td>Vanguard</td>
<td>2.12</td>
</tr>
<tr>
<td>TD Ameritrade</td>
<td>1.7</td>
</tr>
<tr>
<td>E*Trade</td>
<td>1.4</td>
</tr>
<tr>
<td>Merrill Lynch</td>
<td>1.07</td>
</tr>
<tr>
<td>ShareBuilder</td>
<td>1.06</td>
</tr>
<tr>
<td>Zecco</td>
<td>0.78</td>
</tr>
<tr>
<td>Troweprice.com</td>
<td>0.6</td>
</tr>
</tbody>
</table>
**Account Aggregators**

- Account aggregation
  - Pulls together all of a customer’s financial data at a personalized Web site
  - e.g., Yodlee: provides account aggregation technology
  - Privacy concerns; control of personal data, security, etc.

**Online Insurance Services**

- Online Term Life Insurance:
  - One of few online insurance with lowered search costs, increased price comparison, lower prices
  - Commodity
- Most insurance not purchased online
- Online industry geared more toward
  - Product information, search
  - Price discovery
  - Online quotes
  - Influencing the offline purchasing decision
Online Travel Services

- One of the most successful B2C e-commerce segments

- Online travel bookings declined slightly due to recession but expected to grow to $107.5 billion in 2011

- For consumers: More convenience than traditional travel agents

- For suppliers: A singular, focused customer pool that can be efficiently reached through onsite advertising

The Online Travel Market

- Four major sectors:
  - Airline tickets
  - Hotel reservations
  - Car rentals
  - Cruises/tours

- 57% purchase airline tickets from airline’s Web site, 22% from travel booking Web site (e.g., Expedia)

- Corporate online-booking solutions (COBS)
  - Integrated travel services
### Online Career Services

- Top sites generate over $1 billion annually
- Two main players: CareerBuilder, Monster
- Traditional recruitment:
  - Classified, print ads, career expos, on-campus recruitment, staffing firms, internal referral programs
- Online recruiting
  - More efficient, cost-effective, reduces total time-to-hire
  - Enables job hunters to more easily distribute resumes while conducting job searches
  - Ideally suited for Web due to information-intense nature of process

#### Table 9.8 MAJOR ONLINE TRAVEL SITES

<table>
<thead>
<tr>
<th>NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LEISURE/UNMANAGED BUSINESS TRAVEL</strong></td>
<td></td>
</tr>
<tr>
<td>Expedia</td>
<td>Largest online travel service; leisure focus.</td>
</tr>
<tr>
<td>Travelocity</td>
<td>Second-largest online travel service; leisure focus. Owned by Sabre Holdings.</td>
</tr>
<tr>
<td>TripAdvisor</td>
<td>Travel shopping bot that searches for the lowest fares across all other sites.</td>
</tr>
<tr>
<td>Orbitz</td>
<td>Began as supplier-owned reservation system; now part of Orbitz Worldwide.</td>
</tr>
<tr>
<td>Priceline</td>
<td>&quot;Name your price&quot; model; leisure focus.</td>
</tr>
<tr>
<td>CheapTickets</td>
<td>Discount airline tickets, hotel reservations, and auto rentals. Part of Orbitz Worldwide.</td>
</tr>
<tr>
<td>Hotels.com</td>
<td>Largest hotel reservation network; leisure and corporate focus. Owned by Expedia.</td>
</tr>
<tr>
<td>Hotwire</td>
<td>Seeks out discount fares based on airline excess inventory. Owned by Expedia.</td>
</tr>
<tr>
<td><strong>MANAGED BUSINESS TRAVEL</strong></td>
<td></td>
</tr>
<tr>
<td>GetThere.com</td>
<td>Corporate online booking solution (COTS). Owned by Sabre Holdings.</td>
</tr>
<tr>
<td>Travelocity Business</td>
<td>Full-service corporate travel agency.</td>
</tr>
</tbody>
</table>
Online Recruitment Industry Trends

- Consolidation
- Diversification: Niche employment sites
- Localization:
  - Local vs. national, Craigslist
- Job search engines/aggregators:
  - “Scraping” listings
- Social networking:
  - LinkedIn; Facebook apps
- Mobile apps

### Table 9.9 Popular Online Recruitment Sites

<table>
<thead>
<tr>
<th>Recruitment Site</th>
<th>Brief Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Recruitment Sites</td>
<td></td>
</tr>
<tr>
<td>CareerBuilder</td>
<td>Owned by Gannett, Tribune, McClatchy (all newspaper companies), and Microsoft. Provides job search centers for more than 8,000 Web sites, including AOL and MSN, and 140 newspapers; 1.6 million jobs listed.</td>
</tr>
<tr>
<td>Monster</td>
<td>One of the first commercial sites on the Web in 1994. Today, a public company offering general job searches in 50 countries, generating revenue of over $14 million a year.</td>
</tr>
<tr>
<td>Yahoo HotJobs</td>
<td>General job searches. Partners with consortium of newspapers, including Hearst, Cox, MediaNews, General, Scripps, and others for cross-listing of job postings. Purchased by Monster in 2010 for $225 million.</td>
</tr>
<tr>
<td>Indeed.com</td>
<td>Job site aggregator</td>
</tr>
<tr>
<td>SimplyHired</td>
<td>Job site aggregator</td>
</tr>
<tr>
<td>Craigslist</td>
<td>Popular classified listing service focused on local recruiting</td>
</tr>
<tr>
<td>Executive Search Sites</td>
<td></td>
</tr>
<tr>
<td>Futuresstep</td>
<td>Korn/Ferry site, low-end executive recruiting</td>
</tr>
<tr>
<td>SpencerStuart.com</td>
<td>Middle-level executive recruiting</td>
</tr>
<tr>
<td>ExecuNet</td>
<td>Executive search firm</td>
</tr>
<tr>
<td>Niche Job Sites</td>
<td></td>
</tr>
<tr>
<td>SnagAJob</td>
<td>Part-time and hourly jobs</td>
</tr>
<tr>
<td>USAJobs</td>
<td>Federal government jobs</td>
</tr>
<tr>
<td>HigherEdJobs</td>
<td>Education industry</td>
</tr>
<tr>
<td>EngineerJobs</td>
<td>Engineering jobs</td>
</tr>
<tr>
<td>Medillia</td>
<td>Medical industry</td>
</tr>
<tr>
<td>Showbizjobs</td>
<td>Entertainment industry</td>
</tr>
<tr>
<td>SalesJobs</td>
<td>Sales and marketing</td>
</tr>
<tr>
<td>Dice</td>
<td>Information technology jobs</td>
</tr>
<tr>
<td>MBAGlobalNet</td>
<td>MBA-oriented community site</td>
</tr>
</tbody>
</table>

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Case Study
OpenTable: Your Reservation is Waiting

- The leading supplier of Reservation, Table Management, and Guest Management Software for Restaurants
- Incorporated in 1998, name change in 1999, 2009 IPO
- Tried-and-True Business Model

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Case Study
OpenTable: Your Reservation is Waiting

- Revenue Sources
  - Subscription Fee
    - Software installation & training (one-time fee)
    - Monthly subscription fee for software & hardware
  - Per Transaction Charges
    - Transaction fee for each restaurant guest generated through online reservation
  - More than 50% revenue from B2B subscriptions
Case Study
OpenTable: Your Reservation is Waiting

E-Commerce Technologies
- A service-based (SaaS) e-commerce company
- Electronic Reservation Book (ERB):
  - A Customer Relationship Management system (CRM)
  - Real-time map of restaurant floor
  - Meal patterns
- Connect: a Web service for online reservations
- Mobile Web site, Mobile apps, GPS

Case Study
OpenTable: Your Reservation is Waiting

- About OpenTable, http://www.opentable.com/info/aboutus.aspx
- Open Positions
- Investors
- Company and Press
- Strategic Partners
- Affiliated Program
- Help and Support
- Blog
Case Study
OpenTable: Your Reservation is Waiting

- Open Positions
  - Engineering
    - Sr. Software Engineer
    - Lead Business Intelligence Engineer/Architect
    - QA Engineer
  - Field Operations
  - Finance
    - Lead Business Intelligence Engineer/Architect
    - Financial System Analyst
    - Account Receivable Specialists
  - Marketing
  - Operations

Case Study Questions: OpenTable.com

1. Why will OpenTable competitors have a difficult time competing against OpenTable?

2. What characteristics of the restaurant market make it difficult for a national reservation system to work?
Case Study Questions: OpenTable.com

3. How did OpenTable change its marketing strategy to succeed?

4. Why would restaurants find the software-as-a-service model very attractive?

Summary