

Lecture 12 - E-retail

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- one of the first (and most obvious) applications of the internet
- take a well-established business model with long history, catalog/mail-order sales, and put it online (with a few important differences)
- in the next couple of lectures, I'm going to try to accomplish a few things:
 - history of mail-order
 - background on Amazon
 - look at costs and benefits of mail-order (catalog and internet) vs traditional retail, examples of markets where one or the other makes sense
 - in-depth look at two traditional advantages of mail-order and limitations to these
 - * price discrimination
 - * tax-advantaged sales
 - limitations to mail-order
 - what lessons can we draw about e-retail from the history of catalog sales, and what's different?
- current market caps of large retailers:

| | |
|---------|--|
| Alibaba | \$207 billion |
| Walmart | \$248 billion |
| Amazon | \$148 billion |
| TJX | \$42 billion |
| Kroger | \$26 billion |
| Sears | \$3 billion |
| Buy.com | went from \$4 billion → \$23 million → \$250 million, and then bought by larger Japanese retailer in 2010 |

Brief history of retail in U.S.

- 19th century
 - U.S. predominantly rural, very sparsely populated compared with most of Europe
 - transportation difficult, dangerous, expensive
 - railroads made transportation much easier and cheaper, especially for goods
 - innovations in efficient transportation of people lagged (automobiles, paved roads, etc.)
- 1872 Aaron Montgomery Ward founded first mail-order house to use catalogs as its primary promotional tool –located in railroad hub of Chicago
- 1875 US Postal Service introduced favorable rate for bulk mailings
- 1885 bulk mailing rate lowered again
- 1893 Rival Richard Sears began offering a general merchandise catalog (which was soon as large as 786 pages) –operations also located in Chicago
- 1890s USPS starts rural free delivery
- 1907 United Parcel Service founded, focuses on package delivery for stores
- 1913 parcel post system (rural deliveries previously handled by private express companies)
- 1925 golden age of mail order:
 - Sears + MW sold over \$400 million of goods annually
 - Sears alone accounted for >2% of total farm cash income
 - Sears opened first store
- 1931 Sears store sales eclipse catalog sales
- 1933 Sears had 400 stores
- 1990-1950 two changes:
 - demographic shift towards urban living
 - transportation costs for people falling relative to that for goods
- 1973 Federal Express begins air shipments
- 1975 ICC granted UPS authority to ship to every address in contiguous 48 states
- 1992 Supreme Court decision solidifying the right of mail-order businesses to not collect and pay sales tax for out-of-state customers (these sales had been de facto tax-free before)
- 1993 Sears discontinued publishing big book catalog
- late 1990s Mail-order dominated by specialty retailers, not general merchandizers
- 1995 Amazon opens for business, selling books online with searchable database of 1,000,000 titles
- 1997 1 million customers
- 1999 expands product line dramatically, uses online reviews and customer recommendations widely
- 2000 Amazon engaged in “pricing experiments,” apologized
- 2001 makes first profit
- 2006 21 fulfillment centers
- 2008 - 2012 Amazon currently collects state tax from 5 U.S. states, under pressure to collect more, agreements in process
- 2012 59 fulfillment centers (30 in U.S.), worth \$110 billion

This timeline suggests a few things:

- there are differences between mail order and traditional retail in costs and benefits, changing over time, across products
- there are differences between ordering from catalogs and ordering from websites
- government policy can matter a lot

Comparison across retail modes

customer value (where 1 is the highest value and 3 is the lowest value):

| | catalog mail-order | online mail-order | traditional |
|------------------------------|--------------------|-------------------|------------------------|
| consumer travel time | 1 | 1 | 3 |
| consumer product search time | 3 | 1 (easy searches) | 1 (quick visual scans) |
| verification of quality | 3 | 1 (reviews) | 1 (inspection) |
| shopping experience | ? | ? | ? |
| ease of returns | 2 | 2 | 1 |
| selection | 2 | 1 | 3 |
| waiting time | 2 | 2 | 1 |

cost (where 1 is the cheapest and 3 is the most expensive):

| | catalog mail-order | online mail-order | traditional |
|---|-------------------------|-------------------|-------------|
| facilities cost (retail outlets, inventory) | 1 | 1 | 3 |
| tax costs | 1 | 1 | 3 |
| shipping | 2 | 2 | 1 |
| processing | 2 (not automated fully) | 1 | 3 |

- cost and customer value can vary by product type and can also vary in importance by product type
- overall, due to ease of price search, online-mail order has the most price competition, followed by catalog mail-order, with traditional retail in last as the least competitive.
- online mail-order is most able to price discriminate, followed by catalog mail order, with traditional retail being much less able to price discriminate.
- but how do we know the relative importance of these cost and benefit differences? look at numbers from balance sheets.

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