**ISM 211 – eBusiness: Technology and Strategy**

**Pricing Basics**

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- **Dry Run**  
  June 3 (8pm)
- **Final Run**  
  June 6 (8pm)
- **Project presentation**  
  June 5
- **Writeup programming project**  
  June 12
- **Final Project paper**  
  June 12

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**Demand Curves**

- Alice is willing to pay $3
- Bob is willing to pay $2
- Chris is willing to pay $1

![ Demand Curves Diagram ]

**Demand Curves**

- Alice was willing to pay $3
- Bob was willing to pay $2
- Chris was willing to pay $1

![ Demand Curves Diagram ]
### Demand Curves

- **Quantity**: 1, 2, 3
- **Price**: 1, 2, 3

**Consumer Surplus**: $3
**Provider Profit**: $1.5

### Monopolist Pricing

- **Price**: P(q)
- **Quantity**: Q

### Cost

- **Total Cost**: T(q)
- **Marginal Cost**: T'(q)
- **Average Cost**: T(q)/Q

### Cost - Information Goods

- **Price**: P(q)
- **Total Cost**: T(q)
- **Average Cost**: T(q)/Q
- **Marginal Cost**: T'(q)
**Monopolist Pricing**

Price \( P(q) \)

Total Cost: \( T(q) \)

Average Cost: \( T(q)/q \)

Profit

Quantity

Goal: Maximize shaded area!

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**Demand Elasticity**

\[
E_d = \frac{\% \text{ change in quantity demanded of product X}}{\% \text{ change in price of product X}} = \frac{\Delta Q_d/Q_d}{\Delta P_d/P_d}
\]

- Important: Elasticity depends on quantity sold...

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**Monopolist Pricing – zero marginal cost case**

\[
\max_q qP(q) - T(q)
\]

\[
P(q^*) + q^*P'(q^*) = T'(q^*)
\]

\[
1 + \frac{q^*P'(q^*)}{P(q^*)} = \frac{T'(q^*)}{P(q^*)}
\]

\[
1 - E_d^{-1} = T'(q^*)/P(q^*)
\]

\[
P(q^*)/T'(q^*) = \frac{1}{1 - E_d^{-1}}
\]

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**Monopolist pricing – nonzero M.C.**

\[
\max_q qP(q) - T(q)
\]

\[
P(q^*) + q^*P'(q^*) = T'(q^*)
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\[
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**Perfect Competition**

- You make products that are completely undifferentiated (commodities)
- You are a price taker -
  - the quantity you produce cannot effect the price.

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- You make products that are completely undifferentiated (commodities)
- You are a price taker -
  - the quantity you produce cannot effect the price.
Perfect Competition

Now suppose there are no barriers to entry.
Anyone can enter and have same cost structure as you.

Perfect Competition

Firms enter until everyone’s profit is zero!

Linked In

1) What are the major strengths and weaknesses of LinkedIn? Is the company’s valuation of 550 times earnings in 2011 justified?
2) Is the online professional networking services market likely to be winner take all?
3) What can LinkedIn do to increase revenue? What risks might these strategies have?

Netflix

1. Where did Blockbuster go wrong? What could have Blockbuster done differently to survive?
2. What advantages do Apple, Amazon, and the cable TV companies have over Netflix in VOD? What advantages does Netflix have over these competitors?
3. What changes to Netflix’s business model give it the best chance of success in VOD?

Information Policy

Carl Shapiro
Hal R. Varian
Jim Barksdale

“...working with the government is far more productive than trying to ignore it.”

Competition Policy

- Differentiation of products and prices
  - Is it discriminatory to charge different users different prices?
- Lock-in
  - What practices are fair with locked in customers?
- Positive feedback
  - Can you cooperate with rivals to establish standards?

Price Differentiation

Robinson-Patman Act, 1936

- price discrimination is illegal if it "effectively lessens competition"

Legal arguments that work

- Can set lower prices resulting from lower costs
- Set differential prices to meet competition
- Pricing only questionable if it “lessens competition”

Differential Pricing

Can Hurt Consumers

- 100 people wtp $20, 1000 people wtp $6
  - Optimal flat price = $6
- 100 people wtp $20 for early edition, $5 for later, 1000 people wtp $5 for later
  - Optimal to sell at $20 and $5
- Consumers now are worse off

Can Benefit Consumers

- 1000 consumers wtp $20, 100 people wtp $6 for early, $5 for later
  - Optimal flat price = $20
  - Versioning: sell for $20 and $5

Key: will versioning increase size of market?

Competition Policy

- Sherman Act
  - It is illegal to “monopolize” a market.
  - It is not illegal to be a monopoly
- Clayton Act
  - Mergers that “substantially lessen competition” not allowed
  - Protects competition as a process
  - Monopoly isn’t illegal, but attempt to monopolize is
**Government Choices**

- Do nothing
- Act on basis that monopoly was illegally obtained
  - Predatory pricing
  - Exclusive dealing
  - Tying
- Actions:
  - Break up
  - Prohibit suspect practices
  - Regulate the monopolist
  - Electricity
  - Civil Aeronautics Board

**Implications for Strategy**

- Monopoly may be inhibited from using strategies that are legal for other firms
  - A monopoly shouldn’t modify products to extend realm of monopoly
- But even small firms may be accused of antitrust violations
  - Iomega faced antitrust questions
- Role of treble damages

**Be Aware**

- Virtually any acquisition or merger will be reviewed
- Watch out for meeting with rivals
- Document your compliance

**Mergers**

- Adobe/Aldus
  - Modified – Aldus had to release Freehand product to Macromedia ... but then Adobe acquired Macromedia
- Microsoft/Intuit
  - blocked
- Silicon Graphics/Alias/Wavefront
  - Alias software had to be made compatible with other workstations
  - SGI had to keep Open APIs to allow other software companies to develop entertainment graphics software

**Cooperative Standards Setting**

- Standards setting...or cartel?
- Authorities ask the question
  - “would technology be developed expeditiously without standards process
- Watch out for
  - prices and terms agreements
  - Performance standards as barrier to entry
- Interconnection agreements
  - Attempt to not interconnect:
    - Discover vs. Visa → Visa won
  - Attempts to block network participants from joining other networks
    - FTD → Last

**Single Firm Conduct**

**Exclusive dealing**

- Telling Customers they can’t deal with competitors → bad.

**Tying**

- Insisting a customer take another product with a monopolized product
- Is it tying for Ford to include tires with its cars?
- Or MS to include a Browser with Windows?
Achieving Critical Mass

Private sector can be creative about network externalities
- Video stores
- Kodak film system

Important basic technology needs to be proven or demonstrated

Regulation

- Control genuine monopoly power where it exists
- Regulation to achieve Deregulation?
  - Telco Act of 1996
    - Open Local Telephone Markets
    - ILECS must lease space to CLECs in central offices

Universal Service

Corollary to network externalities?

Geography
- Incorporated into land prices

Income level
- Merit goods
- Why do some not have service?

Lessons

- Don’t expect government’s role to diminish
- Every company needs to know the rules
- You can usually use differential pricing
- Policy should ensure fair fight, not punish winners or protect losers
- Mergers are subject to review by DoJ

Lessons, continued

- Cooperate to set standards and develop new technologies, so long as efforts benefit consumers
- If you gain a leading share of market, conduct audit of your practices
- Don’t expect government regulation of telecom to diminish any time soon