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Chapter 14

Pricing Concepts For Establishing Value (Part II)

Today's concepts

- Describe the difference between an everyday low price strategy (EDLP) and a high/low strategy
- Describe the pricing strategies used when introducing a new product
- Describe dynamic pricing
- Describe price discrimination

Pricing strategies

- **Everyday Low Pricing (EDLP)**
  – Promises to consumers a low price without the need to wait for sale price events or comparison shopping

- Consumers: reduces search costs → adds value
- Firms: saves effort and expense needed to mark down prices

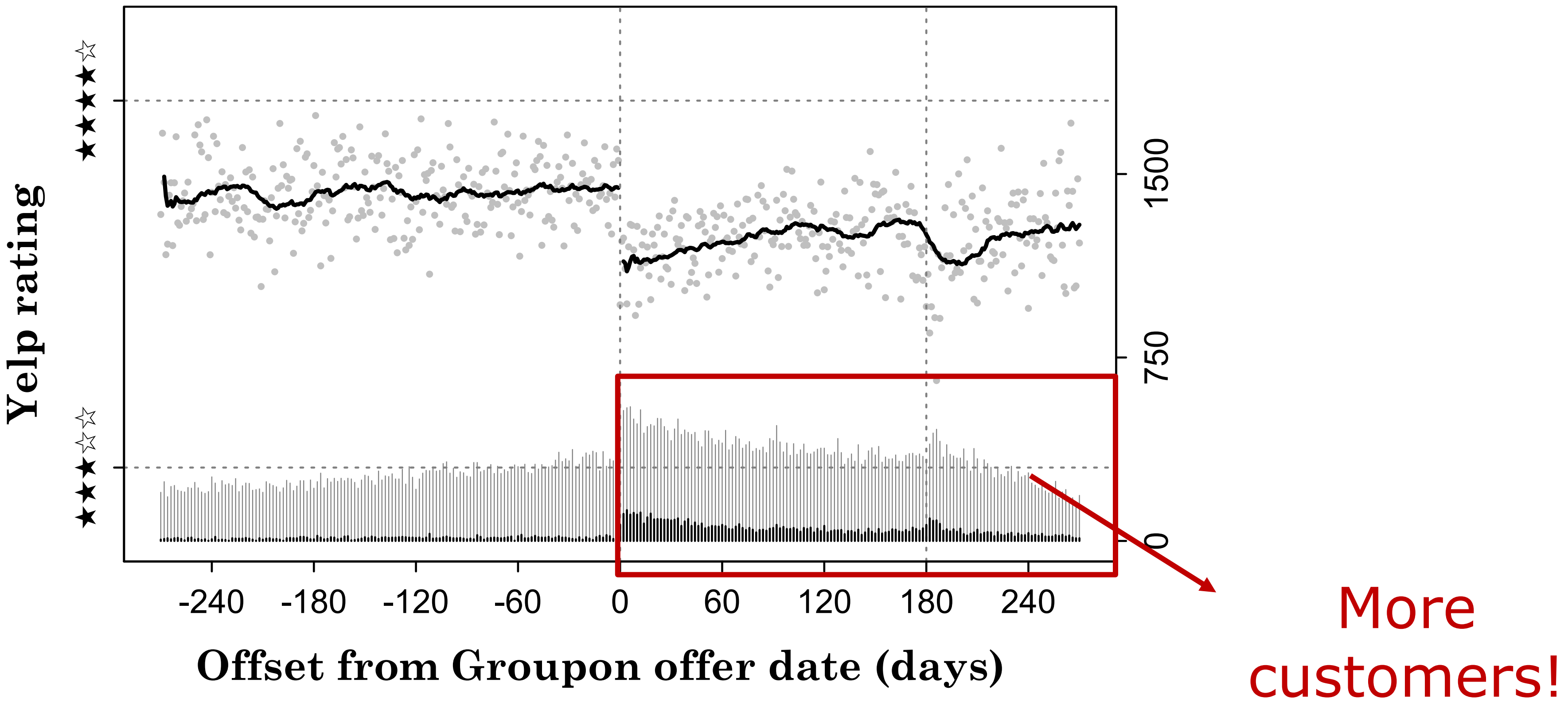
Pricing strategies

- **High/low pricing**
  - Relies on promotion of **sales**
  - Attracts two different segments
    - Price insensitive customers (when price is high)
    - Price sensitive customers (when price is low)

Amazon case

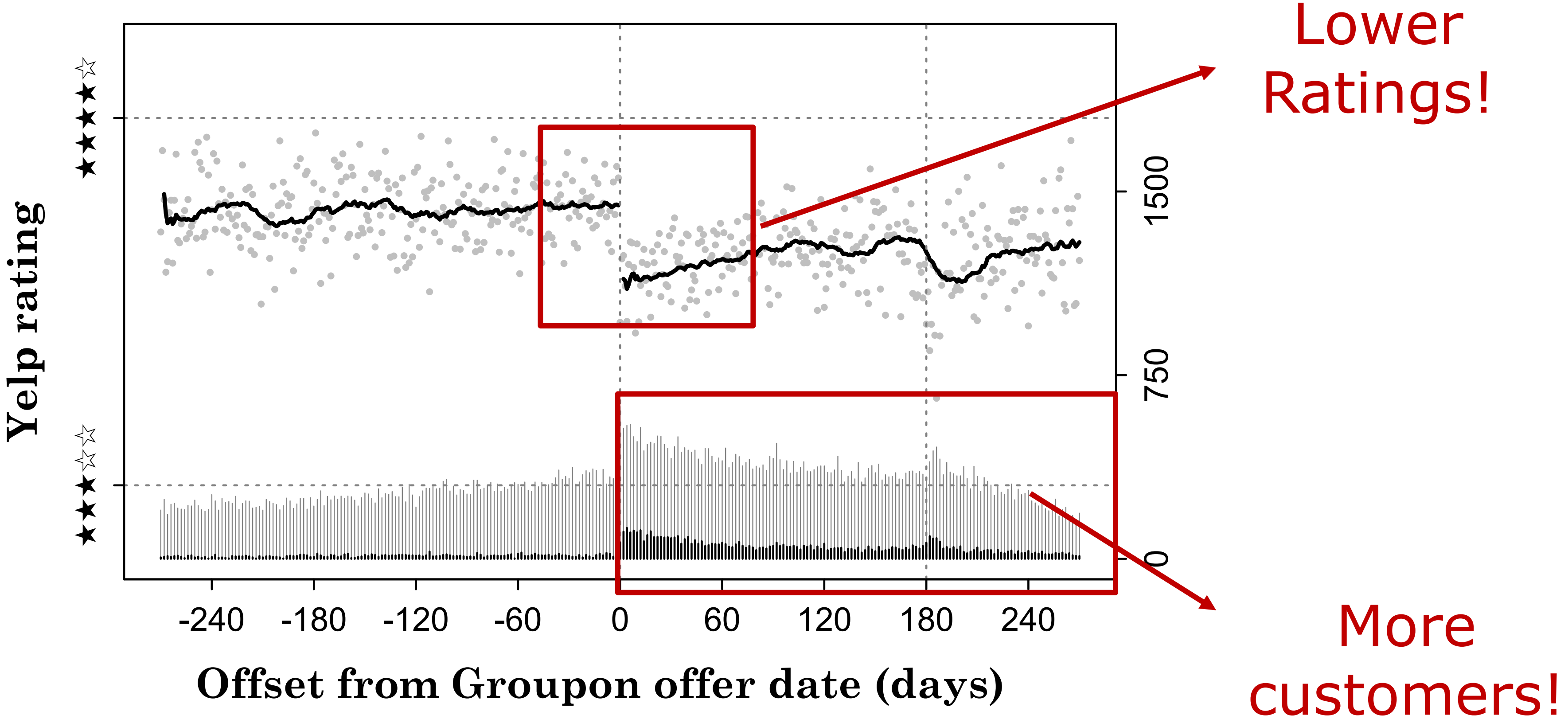
  - Big discounts can attract new users (whom would not have purchased the product otherwise!!)
    - E.g., Groupon case

The Groupon Effect on Yelp Ratings [Byers et al. 2012]



(a) Rating vs. offset, centered on offer date

The Groupon Effect on Yelp Ratings [Byers et al. 2012]



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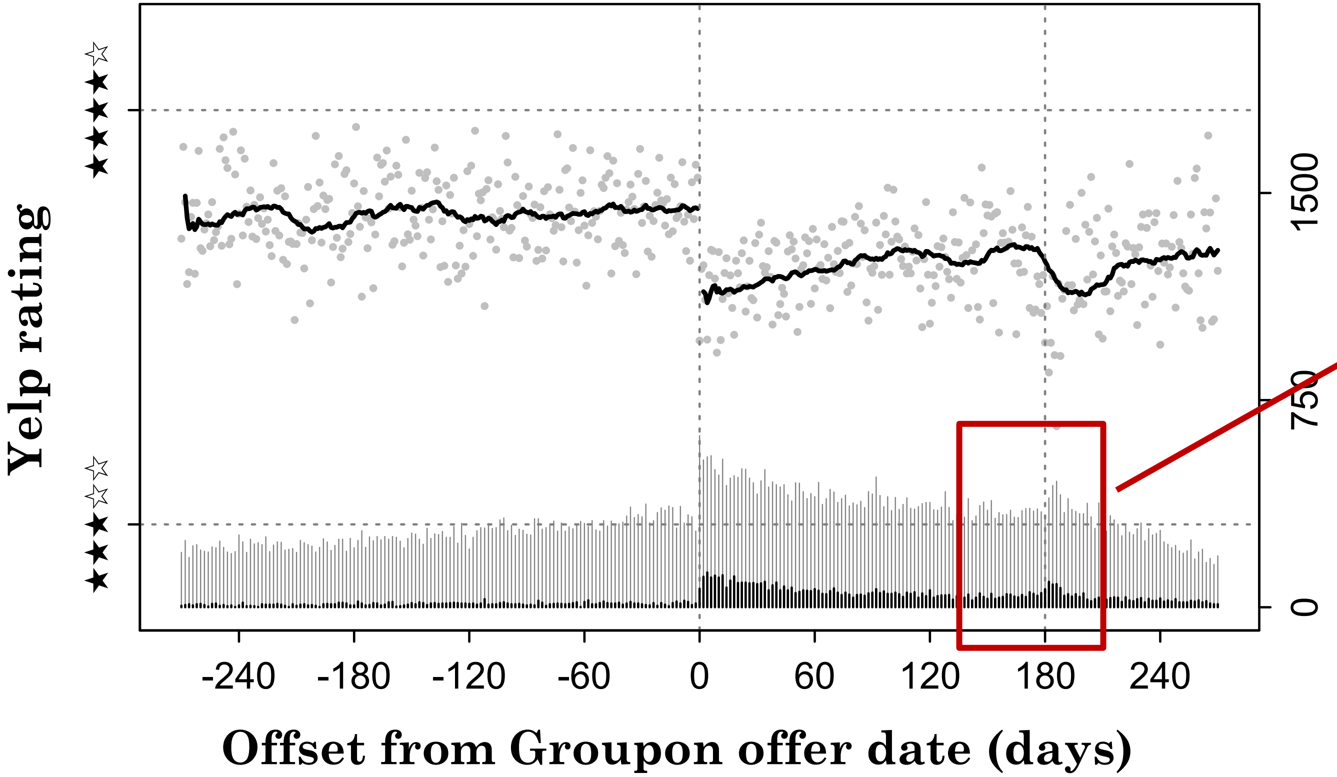

(a) Rating vs. offset, centered on offer date

What do you think is going on here?

The Groupon Effect on Yelp Ratings [Byers et al. 2012]

Why do ratings decrease?

The Groupon Effect on Yelp Ratings [Byers et al. 2012]

Why do ratings decrease?

- Groupon Businesses are More Likely to be “Bad” Businesses
  - Limited evidence
- Groupon users are often engaging in experimentation
- Groupon reviews are less likely to be artificially inflated (fake)

New Product Pricing Strategies

Two strategies:

1. Penetration pricing
2. Price skimming

Penetration pricing

- Set initial price low to build sales, market share, profits
- Good if cost of production decreases with quantity produced (economy of scale)

Penetration pricing

- Pros
  - Creates customer base quickly
  - Builds market share
  - Quick profits
  - Discourages competitors from entering the market
- Cons
  - Sacrifices higher profits (low margins)
  - Firm has to keep up with high demand
  - Signaling problem: Low price → low quality
  - May not create loyal customer base

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Penetration pricing example

- Cable, Internet companies, streaming services

Price Skimming

- At first high prices
  - Target consumers willing to pay premium to have innovation first
- When market saturates
  - Lower (skim) price
    - Target most price-sensitive segment
- Popular with technology products

Price Skimming

- Pros
  - Increased Quality Perception
  - Benefits from Early Adopters
    - Brand ambassadors
  - Fast costs recovery
- Cons
  - Cannot last long
    - Competitors soon launch rival products
  - Consumer Dissatisfaction
    - Negative feedback from early adopters as the firm lowers its prices

Price Skimming Example

Apple

- New IPhone enters the market at a very high price
  - Reduced when or just before new version hit the markets

Dynamic pricing:
The Case of Uber

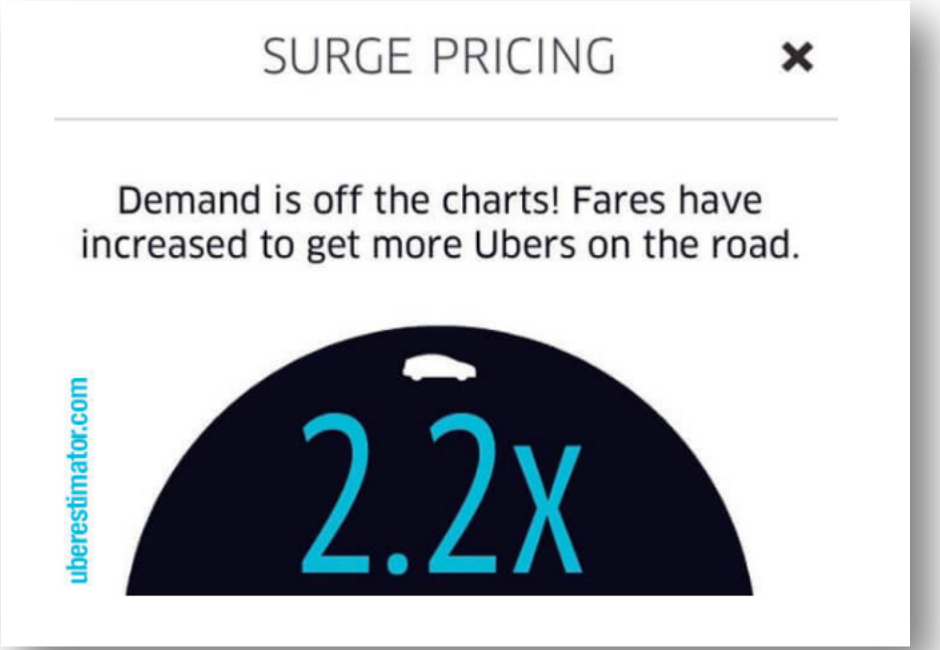
Uber

Dynamic pricing: The Case of Uber

- How does Uber set prices?

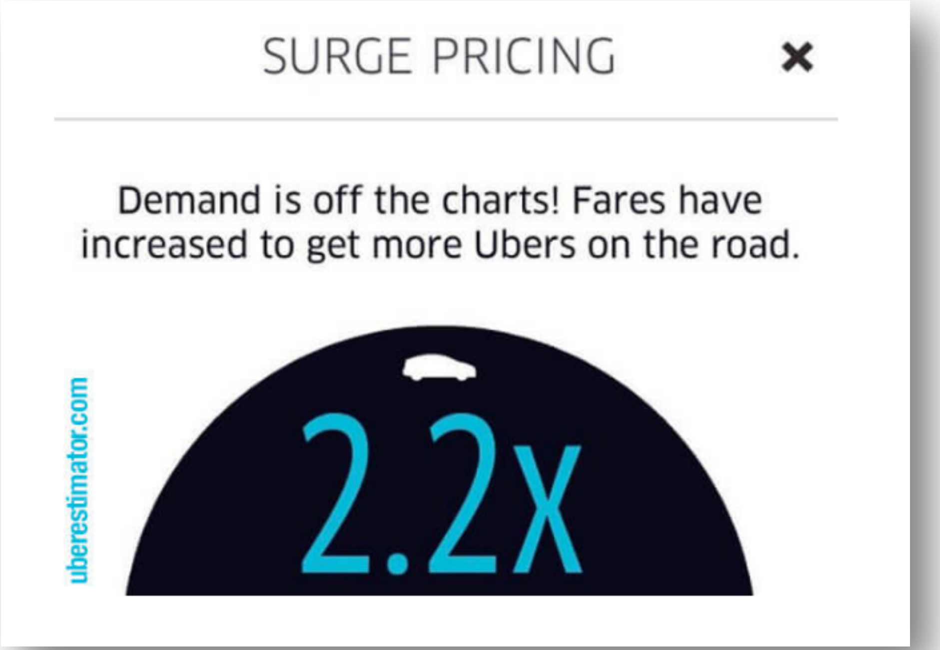
Dynamic pricing: The Case of Uber

- How does Uber set prices?



Dynamic pricing: The Case of Uber

- How does Uber set prices?

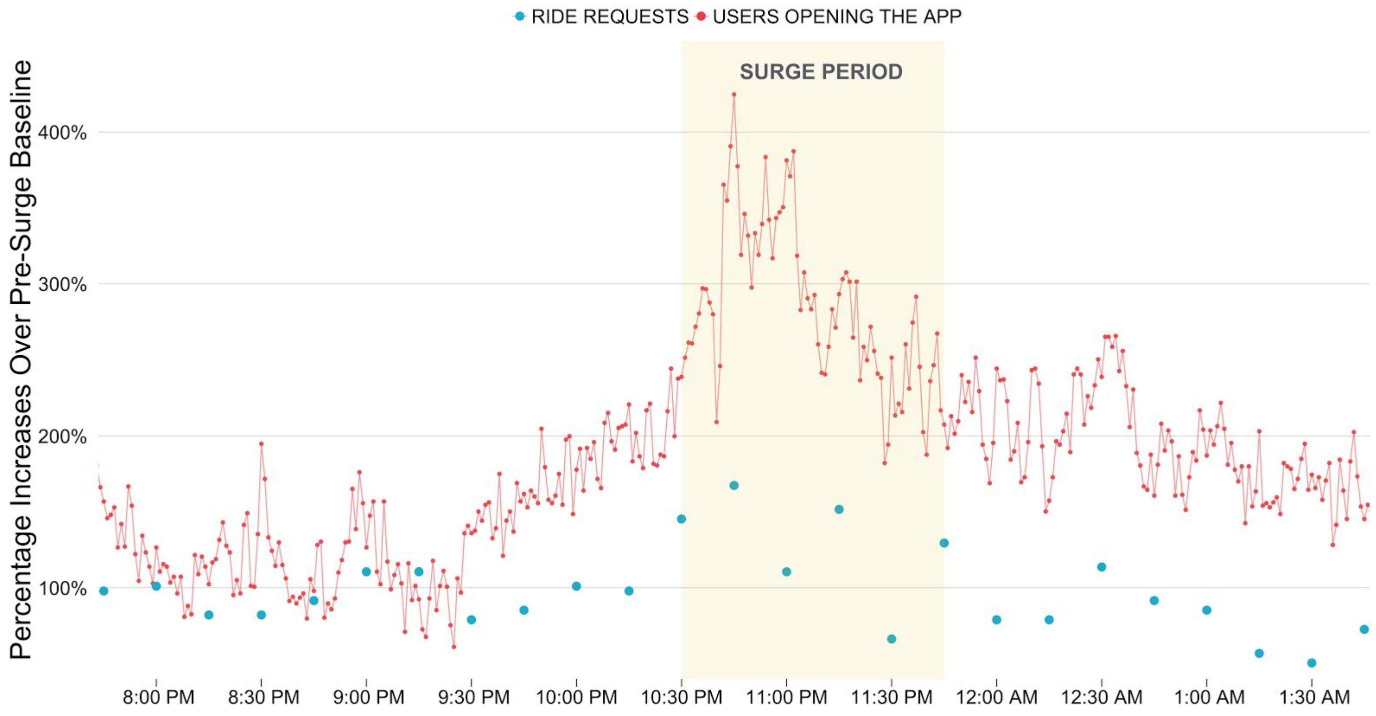


Rates automatically increase, when the demand for drivers is higher than drivers around you.

Dynamic pricing: The Case of Uber

- Surge price in action [Nosko et al. 2015]

Figure 1: Demand for Uber Spikes Following Sold-Out Concert on March 21, 2015

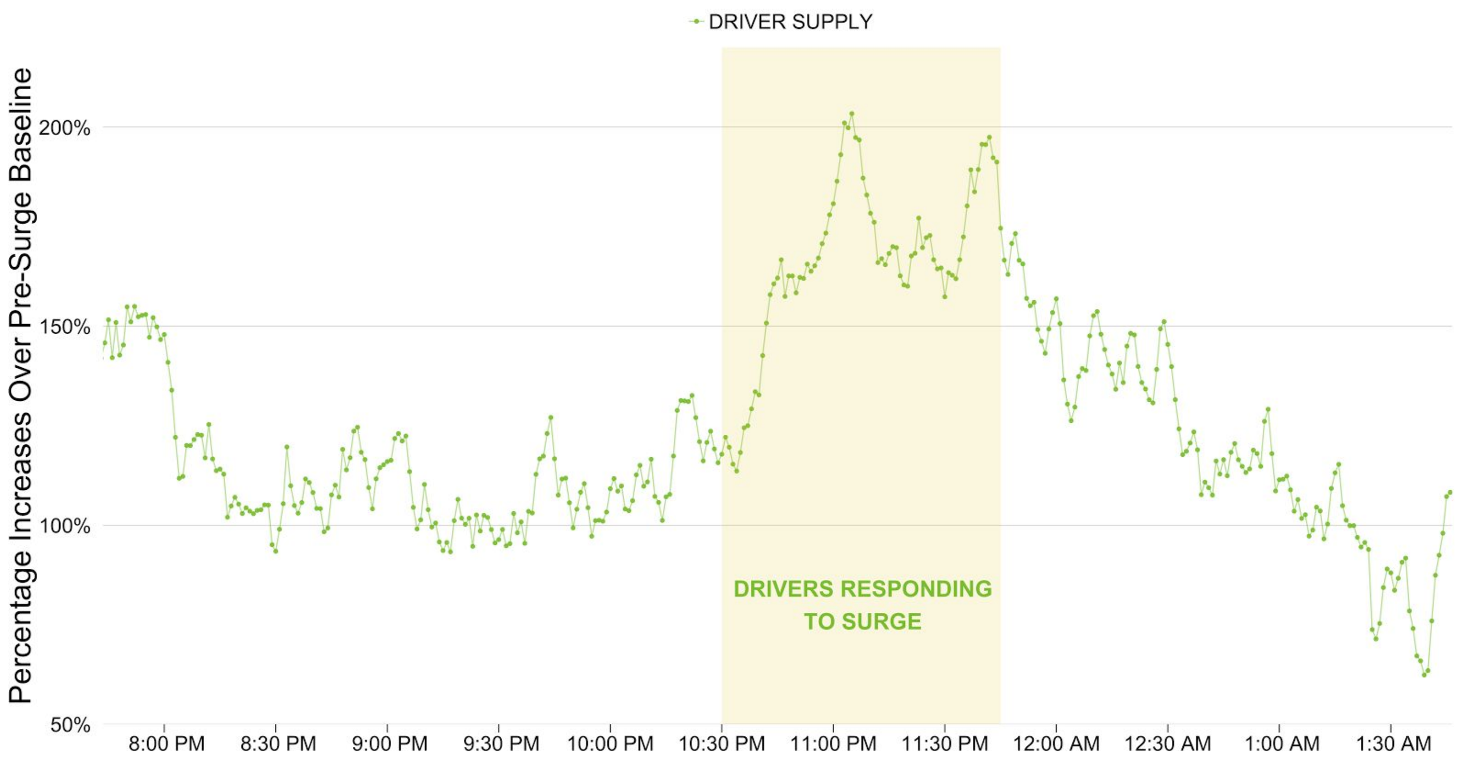


Note: Figure reports the number of users opening the Uber app each minute over the course of March 21, 2015 (in red), as well as the sum of total requests for Uber rides in 15-minute intervals over the same time period (blue circles). Data is for a restricted geospatial bounding box containing Madison Square Garden in New York City, roughly 5 avenues long and 15 streets wide, for uberX vehicles only. Pure volume counts have been normalized to a pre-surge baseline, defined as the average of values between 9:00 and 9:30 PM that evening, before surge turned on. "Surge period" (yellow box) is the time over which the surge multiplier increased beyond 1.0x.

Dynamic pricing: The Case of Uber

- Surge price in action [Nosko et al. 2015]

Figure 2: Uber Driver-Partner Supply Increases to Match Spike in Demand



Note: Figure reports the number of "active" uberX driver-partners within the same geospatial box (noted above) each minute over the course of March 21, 2015 (in green). In this case, "active" means they were either open and ready to accept a trip, en route to pick up a passenger, or on trip with a passenger. Pure volume counts have been normalized to a pre-surge baseline, defined as the average of values between 9:00 and 9:30 PM that evening, before surge turned on. The "surge period" (yellow box) is the time over which the surge multiplier increased beyond 1.0x.

Dynamic pricing: The Case of Uber

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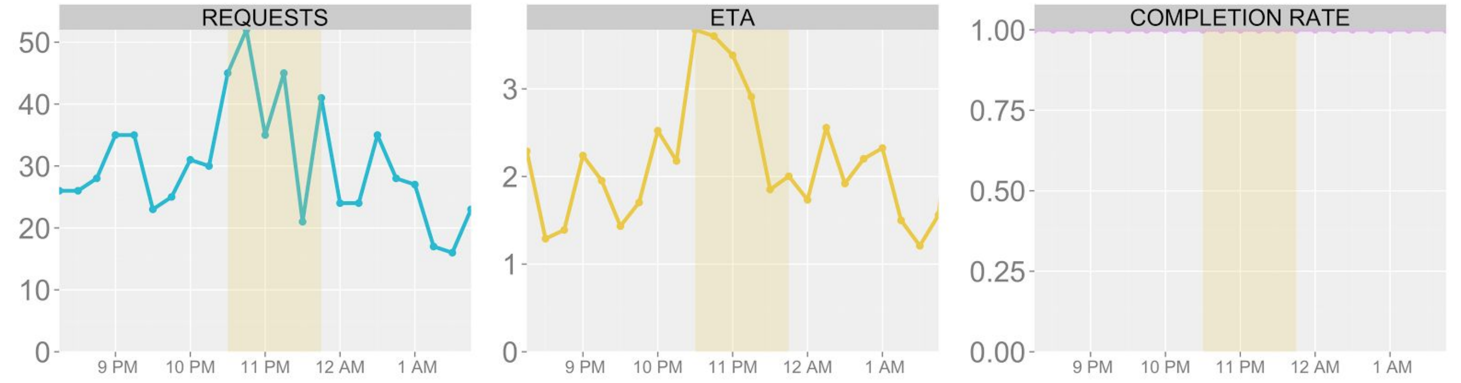
Figure 4: Vital Signs of Surge Pricing in Action on March 21, 2015



Note: All data above is for uberX vehicles from within the geospatial bounding box mentioned earlier, aggregated into 15 minute intervals over the course of the evening of March 21, 2015. "Requests" is the count of Uber trips requested during the 15 minute interval. "ETA" is the average wait time for a driver-partner to arrive, in minutes, over the 15 minute interval. "Completion rate" is the percentage of requests that are fulfilled (calculated as the number of completed trips within the 15 minute interval, divided by the sum of completed trips and unfulfilled trips). The yellow box indicates the same "surge period" highlighted in Figures 1-3.

Dynamic pricing: The Case of Uber

- What is the goal (or goals) Uber is trying to achieve with the surge price algorithm?

1. Match demand with supply

2. Reducing waiting time

Recap

- We have seen:
  - Pricing strategies
    - EDLP
    - High/Low pricing
  - New products pricing strategies
    - Market penetration
    - Skimming
  - Dynamic pricing (Uber)

Ethics of Pricing: Predatory Pricing

When a firm sets a very low price for one or more of its products with the intent to drive its competition out of business, it is using **predatory pricing**

- Illegal under both the Sherman Antitrust Act and the Federal Trade Commission Act

Ethics of Pricing: price discrimination

- Identical goods or services are sold at different prices by the same provider in different markets
- It requires
  - Market segmentation, e.g.,
    - Student vs non-students
  - No arbitrage
    - Lower-priced users cannot resell to high-priced users!

To discriminate you need to separate

Ethics of Pricing: price discrimination

1. Personalized pricing (or first-degree price discrimination)
2. Product versioning (or second-degree price discrimination)
3. Group pricing (or third-degree price discrimination)

First-Degree Price Discrimination

- Information: The firm is able to identify **each** consumer type
- Arbitrage: Not possible
- Prices: Will be different to each consumer and each unit

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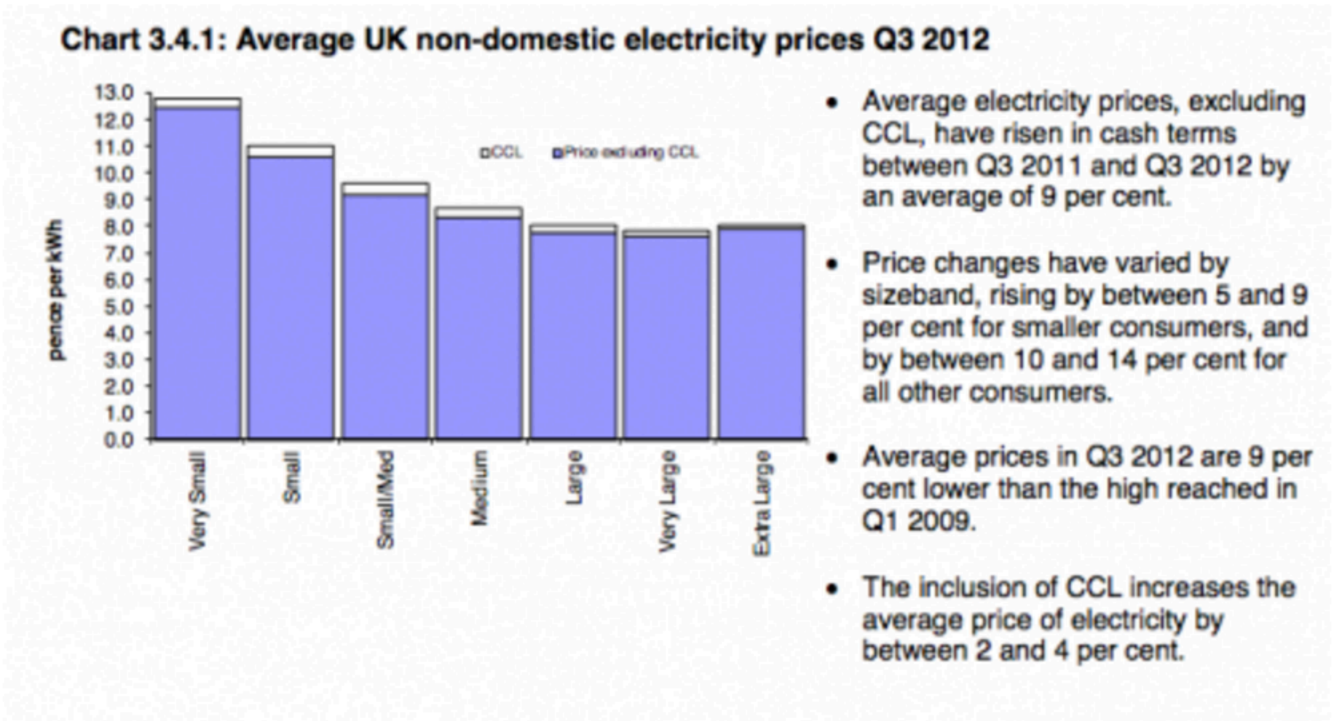
First-Degree Price Discrimination

Second-Degree Price Discrimination

- Information: The firm cannot differentiate consumers ex-ante, but it must know the aggregate characteristics of the market
  - Can still segment!
- Arbitrage: Not possible
- Prices: Will change according to the quantity (or quality) the consumer buys
  - Electricity providers
  - Airlines (first class, economy, etc.)

Second-Degree Price Discrimination



Source: energy prices

Third-Degree Price Discrimination

- Most common
- Information: can distinguish consumer groups through a signal (location, age, gender, etc.)
- Arbitrage: Not possible
- Prices: Will change according according to consumer groups (student, senior)

Third-Degree Price Discrimination

Price Discrimination in e-commerce

- Some internet retailers use personal information that users leave (involuntarily) online to price discriminate
  - Type of browser used
  - Location
  - Age, gender, etc.

- In the news

Recap

- Price discrimination
  - First-degree: “personalization”
  - Second-degree: quantity/version
  - Third-degree: groups

- Internet and big data are facilitating first degree price discrimination