Priceline: Name your own price!!

by

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Outline

- Introduction
- Name Your Own Price mechanism
- Analysis
- Conclusion
What is priceline?

Website that helps “discover” discount rates for travel-related services
Discovery of discount rates for services

- Similar to Expedia, Travelocity, Orbitz, Kayak
- Buyers enter details of their itinerary / preference
- Priceline searches for discount deals offered by service providers and shows best match to the buyers
- Buyers select from the discovered deals and proceed with purchase
Special feature: Name your own price (NYOP)

- Buyers can “name the price” at which they want to make the purchase!
- Available for flights, hotels and rental cars
How does NYOP work?

- The buyer enters itinerary details
  - Departure / destination cities, Arrival / departure dates and times

- A list of options are presented to the buyer to indicate his preference
  - Flights: Arrival / departure airports
  - Hotels: Hotel location, Star level
  - Rental cars: Car type, Pick-up / drop-off location, Flight information

- The buyer enters a “bid” indicating the amount it is willing to pay

- The buyer enters personal information required for reservation

- The buyer enters his credit card information

- If a service is available that matches buyer’s preference and bid, the reservation is made and buyer’s credit card is charged
How does NYOP work?

Behind the scene

- After the buyer puts in his bid, it is passed on to a search engine.
- The search engine connects with all participating service providers’ Computer Reservation Systems and queries whether any provider is willing to release a desired item at a wholesale price below the bid price.
- The wholesale price is released only to the Priceline - secret database
- If the system finds a match in 60 sec, the reservation is made as follows:
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![Diagram showing the price distribution and matching offers](image-url)
Comparison with e-commerce model studied in class

- Negotiation before Discovery

  - Buyer specifies a bid
  - Priceline finds a matching offer

- Reverse auction

  - Buyer specifies the bid
  - Service providers decide the minimum acceptable price
Pros

- For buyers
  - Can get deals much cheaper than published prices
  - Certain quality parameters are guaranteed
  - Never have to pay more than published price – Priceline refunds
  - Can bid again if previous bid unsuccessful

- For sellers
  - Do not need to lower the published retail or discount price
  - Better off by selling the item at a lower price than not selling at all
Cons

- For buyers
  - Do not know the exact details of the offer until reservation is made
  - Must enter credit card information before bidding
  - Cannot change / cancel the purchase if a match has been found
  - Do not get associated rewards – frequent flyer miles, special discounts
  - Have to wait 24 hours before bidding again for the same itinerary
  - Requires time for pre and post bidding search to be an efficient bidder

- For sellers
  - Suffer from thinness of market during reverse auction
  - Do not have complete information about demand / bids
Buyers can game the system

- Search for published retail and discount prices on other websites
- Learn the bidding and winning trend for similar itineraries
- Re-bid strategically
Priceline’s take to ensure buyer satisfaction

- Responds in 60 sec (earlier 60 min), buyers can re-bid in 24 hours (earlier 72 hours)
- Inside track on flight deals (introduced March 12, 2008)
  - Shows market trend for flight price from major cities
  - Provides inside look at NYOP winning bids
- Acquisition of Lowest Fare
  - If a bid is not successful, Priceline will offer retail fares from Lowest Fare
Why does NYOP model exist?

Example study

- Why an NYOP channel makes sense for service providers (or: who needs Priceline, anyway?), by Wang, Gal-Or and Chatterjee

- Formulate a two stage game for buyers’ and service providers’ behavior in Priceline

- Study properties of Bayesian Nash equilibrium in the two stage game with a monopolist service provider
Some results from literature

Monopolist SP

- NYOP channel is profitable for the SP for intermediate opacity
- In absence of demand state information, the SP prefers posted-price channel for high capacity and NYOP for low capacity

SP with competitors

- In the presence of a competitor using posted-price channel, an SP prefers NYOP
- Competition influences optimal structure of NYOP mechanism

NYOP firm perspective

- Same expected profit is obtained by NYOP firm if buyers are restricted to single bid vs. repeat bids
- With partial bidding, profit changes non-monotonically with percentage of repeat bidders
Priceline’s Name Your Own Price system provides an alternative to the traditional posted-price sales of travel packages.

Under certain scenarios, NYOP is a profitable channel for the service providers.

Customers who cannot afford to, or, do not want to make the purchase at the posted price, can obtain great money saving deals with proper survey.
Google, google, google…..!!

- Why an NYOP channel makes sense for service providers (or: who needs Priceline, anyway?), by Wang, Gal-Or and Chatterjee

- Partial-Repeat-Bidding in the Name-Your-Own-Price Channel, by Scott Fay

- Competitive reasons for the Name Your Own Price channel, by Scott Fay
Questions?
Thank You!