

Cognitive Models of Consumer Choice

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INNOVATION

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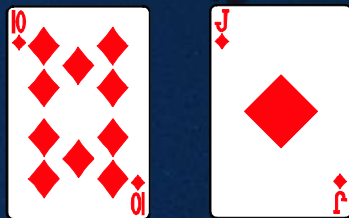


IT'S ALL ABOUT THE TELL

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My cards



Private information about my cards

Airline's fares, products, schedule



Community cards

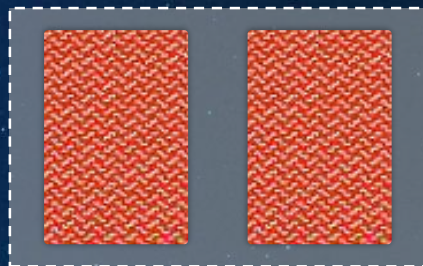


Public information cards in play

Competitor's itineraries schedules, fares available at time of purchase



Opponent's cards




Belief of opponent's strength of hand

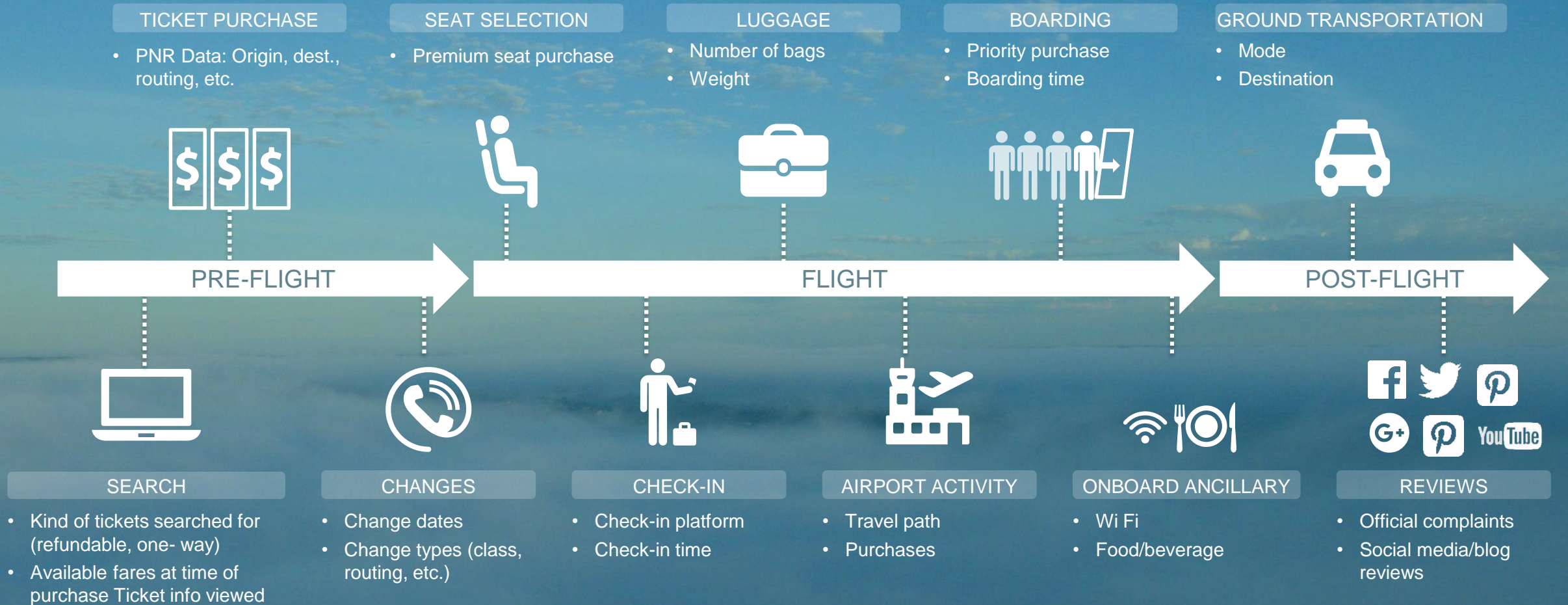
All "breadcrumbs" left from customer interaction with airline



Action: call or fold

Action: correctly bundle and price an ancillary package

 Opponent's information is encrypted and revealed through "tells" (signals)



A man in a light blue shirt and dark trousers is sitting on a metal airport-style bench. He is looking down at a tablet computer he is holding in both hands. A black suitcase is on the floor next to him. The background shows large windows of an airport terminal, with a bright, slightly overcast sky visible. The entire image has a blue color overlay.

A COGNITIVE MODEL OF THE AIRLINE CONSUMER

- Willingness-to-pay
- Buy-down probability
- No-show probability
- Change probability
- Desired destinations
- Desired product
- Desired aircraft configuration
- Desired ancillary purchases

It's less about the data
ABOUT YOU

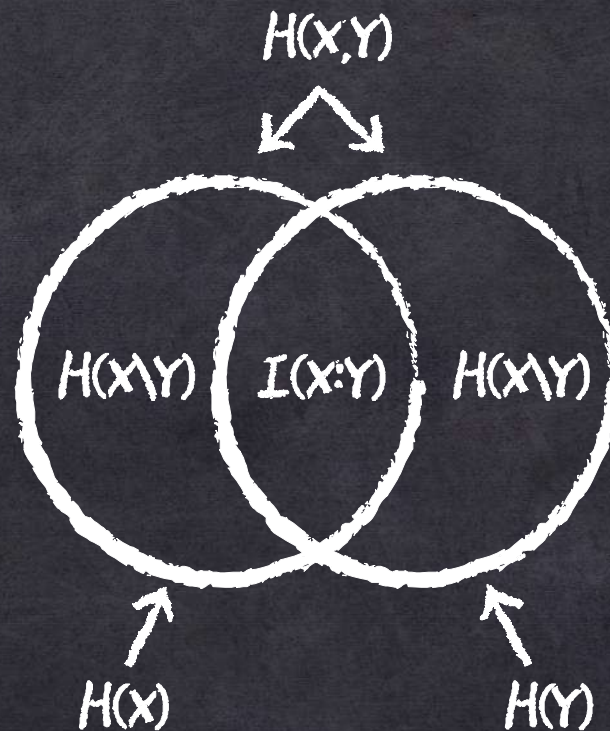
...and more about the data
AROUND YOU



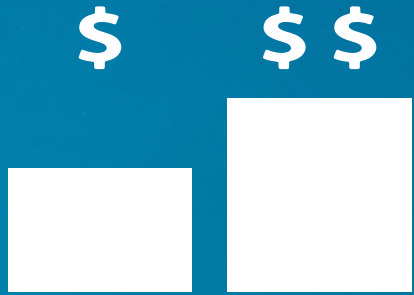
SPY	0.15	+0.31%
FTR	-0.23	-2.34%
CSCO	-1.01	-1.89%
CHK	0.02	+0.04%
AAPL	+2.00	+3.85%
PRTO	0.00	0.00%
AMZN	0.00	0.00%
TSLA	0.00	0.00%
AVGO	0.00	0.00%
SIRI	0.65	+1.21%

$$H = -\sum P(x) \log P(x)$$

$$I(X;Y) = H(X) - H(X|Y) = H(Y) - H(Y|X)$$



Fare differential



Incentivize booking of higher fare on similar quality itinerary

Itinerary Quality



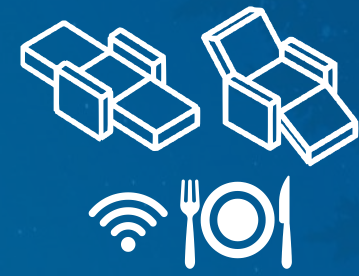
Incentivize booking of less desirable routing

Market/Freq. Share

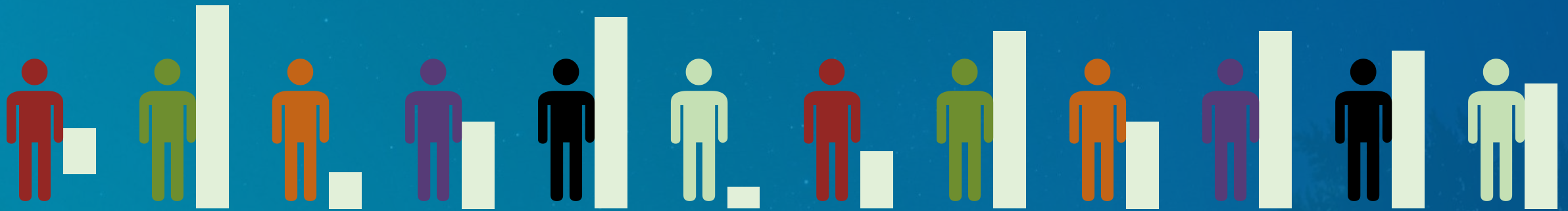


Incentivize booking of less popular carrier

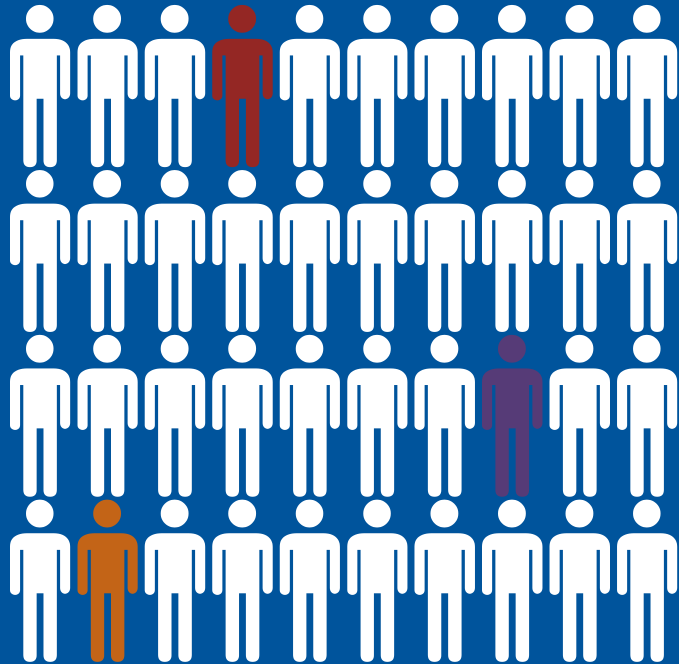
Product Quality



Incentivize booking away from competitor's higher quality product



Valuation of passengers' disutility is dependent on each individual's cognitive model



Joseph

- Lives in Singapore
- Purchases WiFi whenever it is available/rarely books flights without WiFi
- Joseph is searching for a ticket on SQ's website. No WiFi-enabled flights are available. Incentivize Joseph to travel with bonus miles so that he does not book with a competing carrier



Alice

- Lives in Dallas
- Appears to fly American only to cities not served by Southwest
- Target Alice with discounts or bonus offers on flights to Southwest cities



Charlie

- Lives in Dubai
- Needs to fly from DXB to BOM
- Always purchases business class fares for business travel
- Charlie is searching for an itinerary where business class is sold out. Incentivize Charlie to travel with an upgrade certificate to be used on future personal travel



“Life is not always a matter of holding good cards, but sometimes, playing a poor hand well.”

— Jack London

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