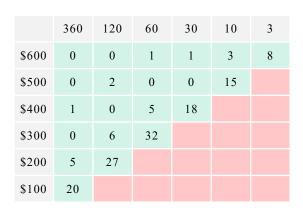


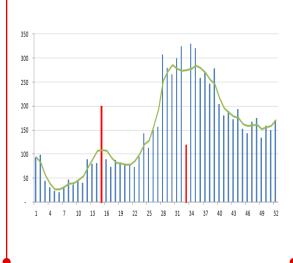
### Revenue Management for the last 40 years

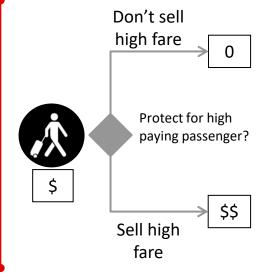
Revenue management is selling 'the right product to the right customer at the right time to the right price' (Cross, 1997)

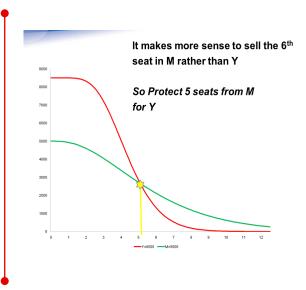
Purchase History Demand Forecast Policy Optimization

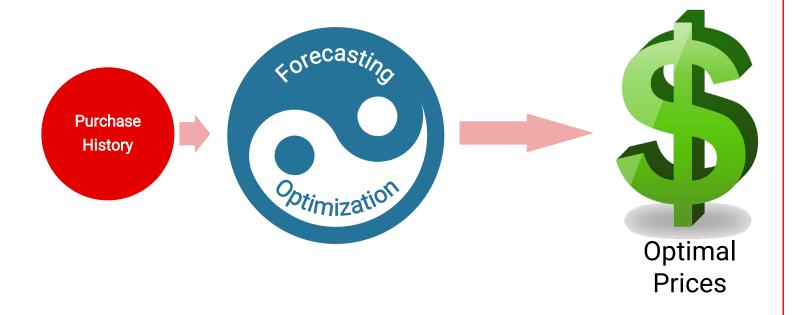
Optimal Prices







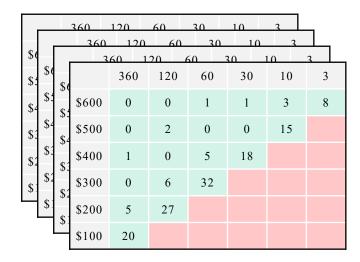


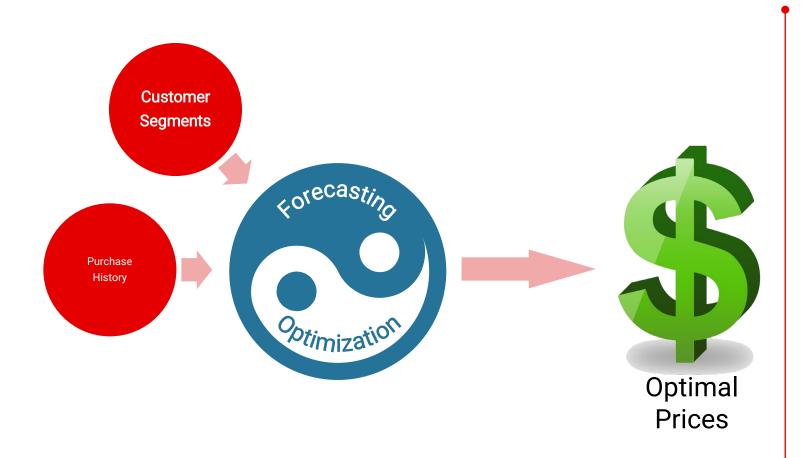


### My history

	360	120	60	30	10	3
\$600	0	0	1	1	3	8
\$500	0	2	0	0	15	
\$400	1	0	5	18		
\$300	0	6	32			
\$200	5	27				
\$100	20					

#### History of all my competitors





### Personalized offers for different Customer Segments





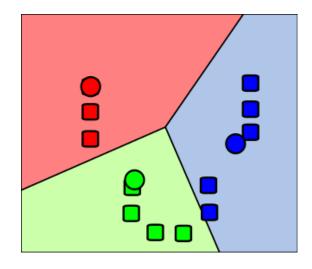


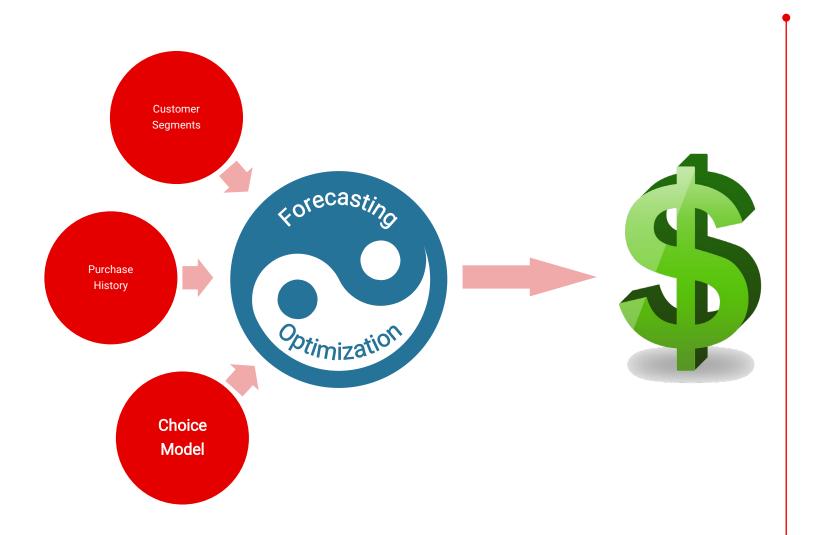


One-day business

Toddlers and baggage

using clustering algorithms

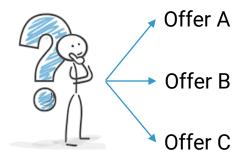


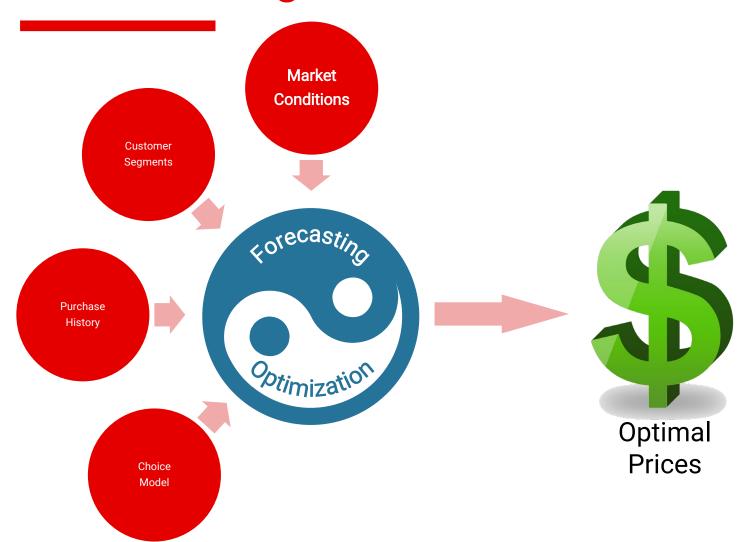


# Model customer behavior for propensity to book



#### and choice

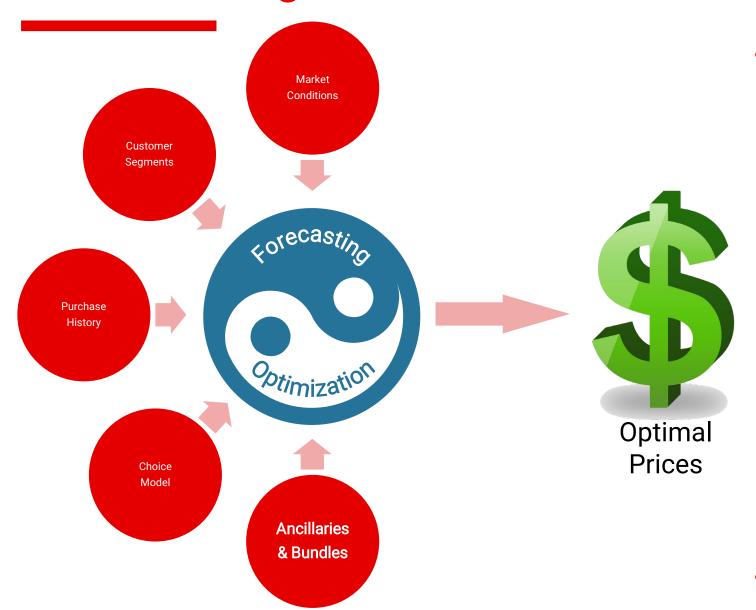




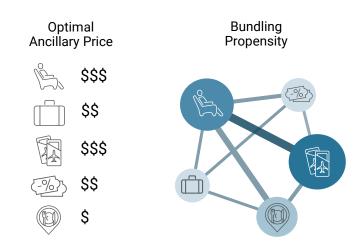
# Multiple factors impact demand for travel:

- Economy
- Politics
- Health
- Climate
- Demographics



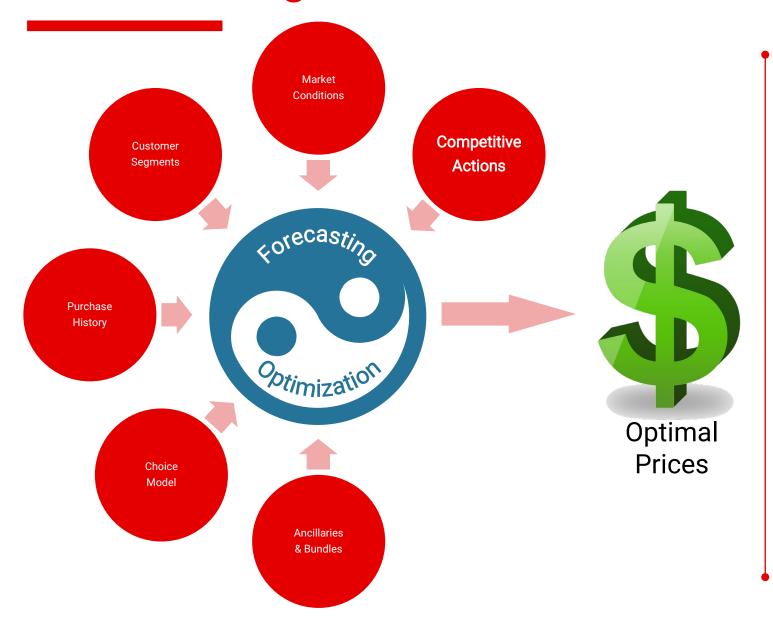


# Airlines and hotels are becoming retailers

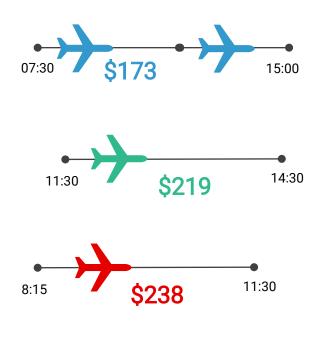


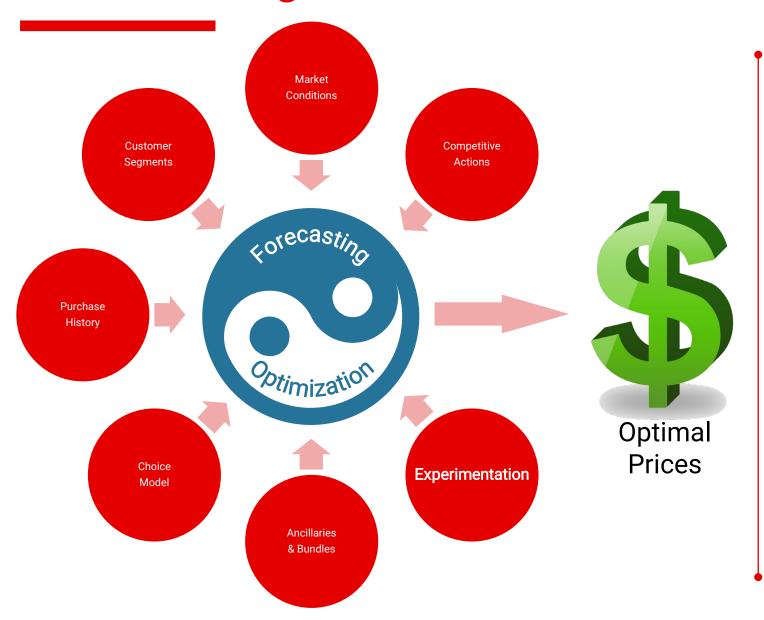


- \$20	
- \$10	
n/a	

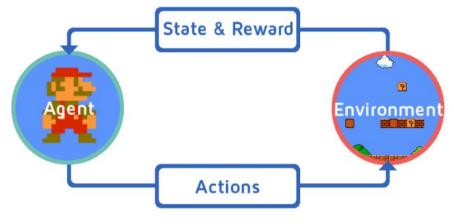


# Adjust prices to react to competition

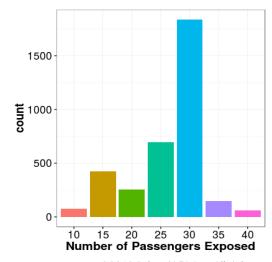




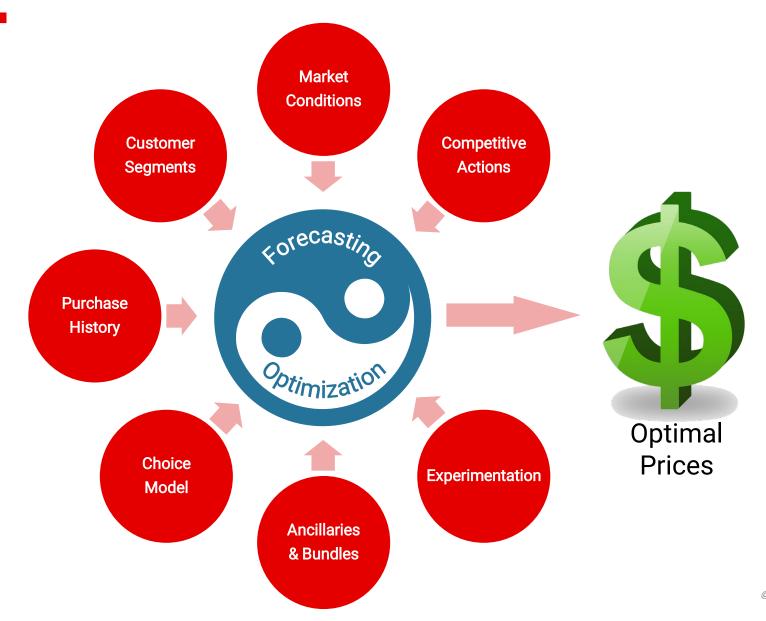
# Learn best actions through analysis of feedback



Test Design Chart Detail



## What's Coming Next? - Data!



## Sabre Travel AI Gpowers innovation across travel



## Northwestern University Project



### Seattle





Chicago



Boston

F	9:20 AM = 10:16 AM Frontier	1 hr 56 min A11,-MOV	Nonstop	117 kg CO <sub>2</sub>	£ \$132 round trip
	2-48 PM = 3:55 PM form	2 hr 7 min A1; -010	Nonstop	149 kg CO <sub>2</sub> Arg embalana O	\$ \$104 round trip
<u></u>	6:25 PM - 7:32 PM fp-rt	2 hr 7 min A11, -010 2 hr 3 min A11, -010	Nonstop	102 kg CO <sub>2</sub> -91% embedions. O	12 \$104 Cond top
	9:06 PM = 10:09 PM Cels			133 kg CO <sub>2</sub> 11% onesions: O	\$227 round trip
A	11.03 PM - 1059 PM Cets	1 hr 56 min A11,-010	Nonetop	133 kg CO <sub>2</sub>	\$227 round trip
▲	8:59 PM = 9:49 PM (vite	1 hr 50 min A7L-MOW	Norstop	128 kg CO <sub>2</sub> Of Lambadow O	\$231 round trip
A	0.54 AM - 10;45 AM Certs 6:33 AM - 7;40 AM American	1 hr St min Att, sales	Nonstop	128 kg CO <sub>2</sub>	\$255 round hip
•		2 hr 7 min x11,-010	Norstop	154 kg CO <sub>2</sub> Arg emissions O	\$270 round trip
A	7:15 AM - 8:20 AM Celts	2 hr 5 min All, -Clic	Nonstop	133 kg CO <sub>2</sub>	\$307 round top
٨	10:07 AM - 11:10 AM Dela	2 hr 3 min A11,-010	Norstop	133 kg CO <sub>2</sub>	\$307 round tro
A	5:40 PM - 7:00 PM Celte	2 hr 20 min A1; -010	Nonstop	133 kg CO <sub>2</sub> -174 ambators: O	\$307 road tip
	6:26 PM = 7:45 PM American - Operated by Emily Ah as American Ex.	2 hr 19 min A11,-010	Nonetop	159 kg CO <sub>2</sub> +15 cm (som O	\$338 tourd top
A	3:17 PM - 4:06 PM	1 hr 40 min	Nonetop	128 kg CO <sub>2</sub>	\$361

Atlanta

Houston