The Points Are The Point! (Simulation)

Animesh Choudhary, Prateek Choukse, Dawei Guan,
Prashant Mishra, Ankita Padwal, Yiyin Zhou, Ming Zhu

Agenda

- Business Background Brief

- SWOT Analysis of Airline Industry

- Simulation for the cost effect (Positive)

- Recommendation

Business Background Brief

- The Airline Deregulation Act OF 1978 paved way for a new kind of loyalty program: The Frequent Flyer Program.

Business Background Brief

- Points Redemption will impact the way airline company accrue(simulate) the cost(risk) related and further impact the profitability reporting .
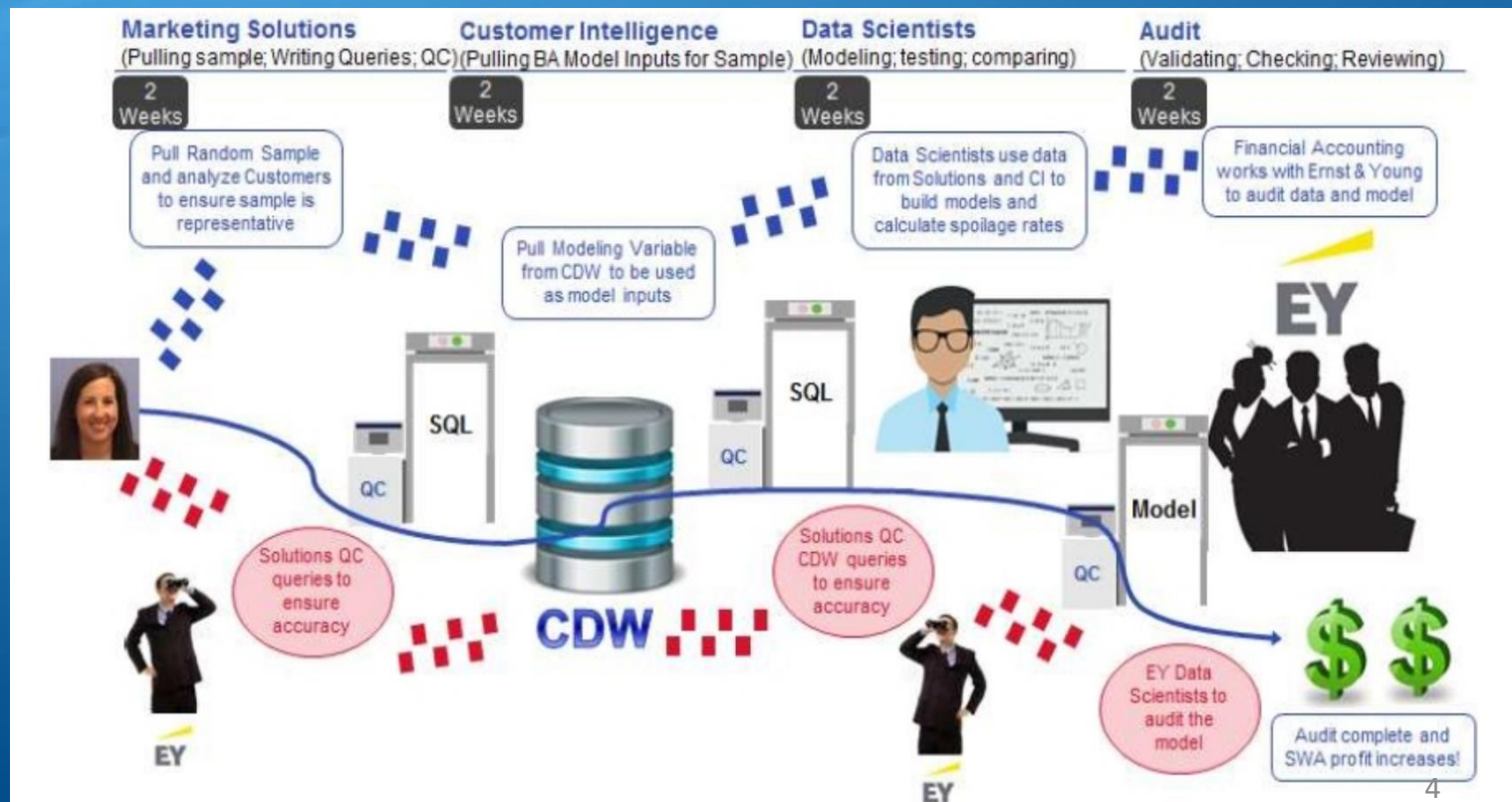
SWOT Analysis of Frequent Flyer Program

Strength :

- Air travel itself is the major strength of any airline(For the SWA, They are known as lower-cost carrier , no frills cost for baggage, meals, reservation change etc.)

- Well trained airline staff familiar with the operation and reporting process with increasingly reliable models performed by the data scientist.

SWOT Analysis of Frequent Flyer Program

Weakness :

- High spoilage rate relating to the Customer 's behavior.

- Complicated process for accounting (Revenue recognition / Liability Accrued)

- Associated Audit <u>test process </u>for the profit reporting:

SWOT Analysis of Frequent Flyer Program

Opportunity :

- Enhance the current market and company's goodwill by increasing loyalty against competitors.

- Enlarge brand effect and <u>stimulate ancillary service and sales volume</u>. (Credit Card Service)

SWOT Analysis of Frequent Flyer Program

Threat :

- Spoilage rate is high and is a trade-off of the competing market.

- Sluggish economic environment for the airline industry and encouragement of supplement means to air travel.

- Increased operation expense and indirect cost will cause revenue erosion.

Simulation for the Risk Impact

- Assumptions:

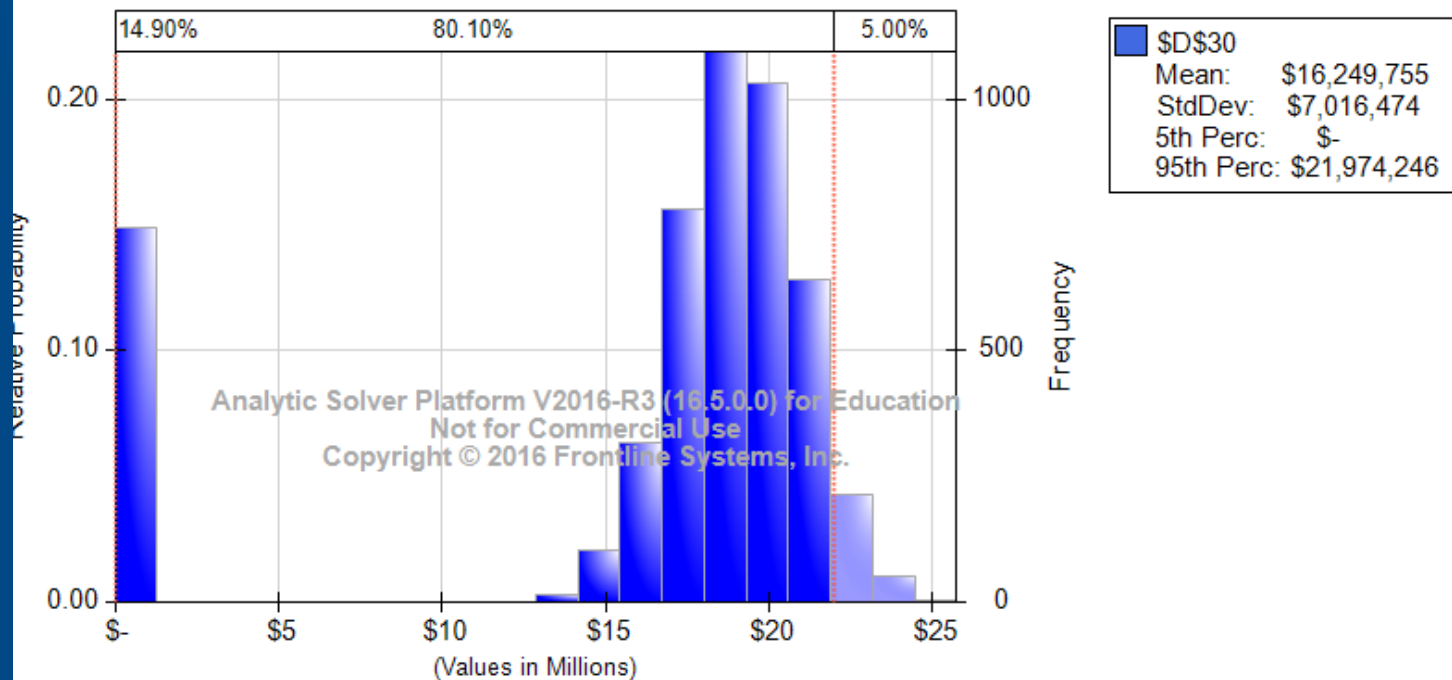| quaterly		Base	Lower	Upper	Most Likely	SD	Distribution Type	
Parameteres								
Population Size		100						
Audit Threshold of Model to pass the test		20						
Spoilage Threshold		25%					Binomial	
Market Size		40000000						
Market Share		8%				2%	Normal	
Profit per Customer		$ 1.20						
Reduction in market share			5%	15%			Uniform	
Feul Cost			3000000	5000000			Uniform	
Amortization			12000000	18000000	16000000		Triangular	
Contract Instruments			2000000	5000000			Uniform	
Labor +ancillary cost			2000000	5000000			Uniform	

Simulation for the Risk Impact

Model:

Base Case Model					
Chances of success of Test		26		1	Population Test Successful, Go Ahead
Chances of Competitior		0			No Competitor
Market Share (%tage)		7.51%			
Market Share (Number)		3005414			
Sales Profit (Before reduction)	$	3,606,497			
Market Share Reduction (%)		0.00%			
Reduced Market Share		0			
Sales Profit (after reduction)	$	-			
Feul Cost	$	4,815,253			
Amortization	$	3,864,753			
Contract Instruments	$	17,056,013			
Labor +ancillary cost	$	4,398,014			
Net Profit	$	22,129,521			

Simulation for the Risk Impact

Outputs			
Expected Profit (mean)	$	16,249,755	
Expected Profit (maximumn)	$	52,302,637	
Probability No Profit		17.38%	

14.90%   80.10%   5.00%

D30
Mean: $16,249,755
StdDev: $7,016,474
5th Perc: $-
95th Perc: $21,974,246

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(Values in Millions)

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Simulation for the Risk Impact

Summary:

Coins have two sides:

- **High Spoilage Rate is normally viewed as negative risk impact on the revenue yields.**

- **High Spoilage Rate for the points, oppositely , reviews positive impact outweigh the negative risk based on the simulation amount.**

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Recommendations

- High Spoilage Rate could be used as a cost saving tool for the Airline Company and should be promoted to the operation levels for execution.

- By doing so , Customer Behaviors should be monitored and keep updating the models:

- When a rapid reward member like Dean takes a flight on SWA, what do we know about him?
  - Name and DoB
  - Where he is traveling to and from
  - Flight history and preferences
  - Basic general demographic info

Thank You !
Q & A