

AIRLINE CUSTOMER SEGMENTATION

Customized Marketing Strategy

Aug. 2018, by Yuzi Liu

OVERVIEW

Sun Country Airlines is one of the most well-known airline companies in the United States. In 2015, Sun Country Airlines noticed that its customer data does not being utilized to its full potential. In this project, I used R to conduct data cleaning, feature selection, and KNN clustering algorithm. I identified five key customer segments and then used Tableau to visualize and drive insights that will help Sun Country Airlines to develop a potential better marketing strategy.

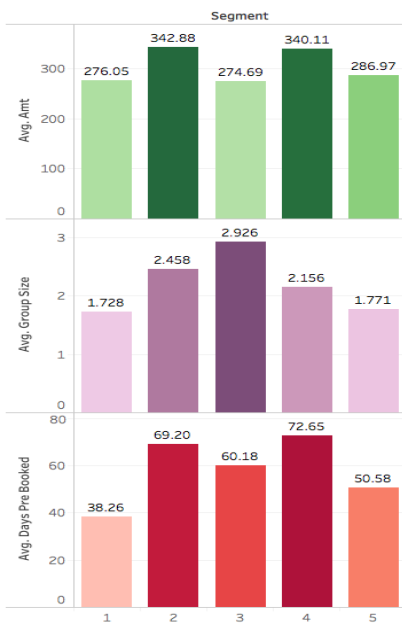


DATA

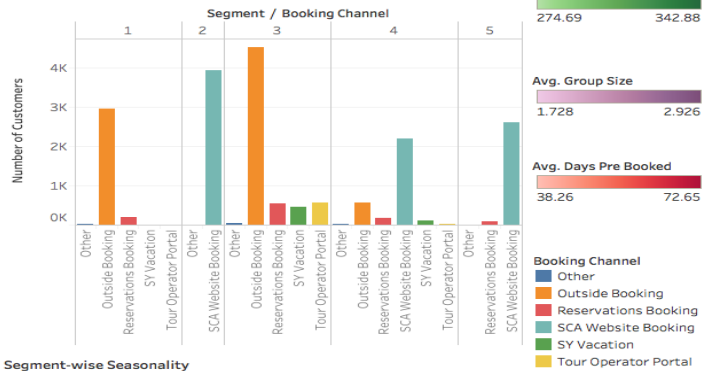
In this project, I used 200k+ of customer reservation data from Sun Country Airlines, you can find on my [GitHub site](#).

SEGMENTATION

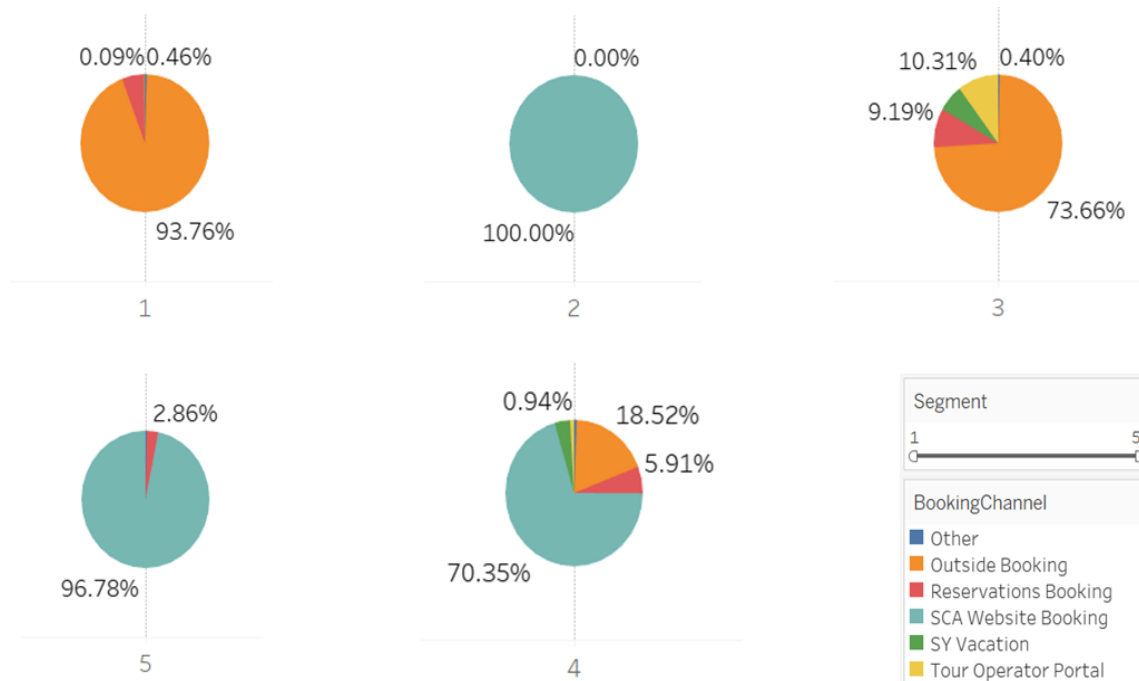
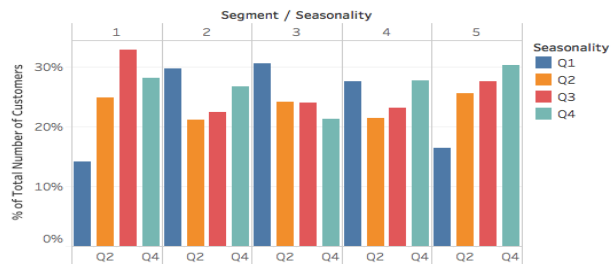
Segment Averages - Amount, Group Size, Days Pre Booked



Segment-wise Booking Channel



Segment-wise Seasonality



Segment 1: Summer Visitors/Business Travelers

- These are summer (Q3) travelers who visit Minnesota, (e.g., students coming home, family, business travelers, etc.).
- They book flights not far in advance of their trips and seek discounts via outside booking channels, the group size is mostly 1 or 2 people.

Segment 2: Winter Break Families

- These are winter (Q1&Q4) travelers who travel out of Minnesota, possibly families on vacation.
- They book flights using the SCA website, usually fly round trip and in groups. Most of them are non-Ufly members.

Segment 3: Price Sensitive Leisure Travelers

- These are the largest segment, they are leisure travelers who travel from Minnesota on round trips.
- They book flights 60 days in advance and has the largest average group size while lowest average amount per trip.
- They mostly booked from outside websites and are non-Ufly members.

Segment 4: Sun Country Loyalists

- These are U-fly members who mainly book flight through the SCA website.
- They mostly booked single or with small groups with less than 60 days in advance.
- They spend the highest average per trip amount.

Segment 5: Extended Travelers

- They have low frequency of round-trip bookings, majority of them use SCA website.
- Around 70% of them are Non-Ufly members.
- They travel in groups and book on average 50 days in advance.

IMPLICATIONS

Segment 1: Summer Visitors/Business Travelers

- Partner with outside booking channels to discount fares in Spring through Summer to retain customers
- Consider lowering the price via other channels for flights to MSP in Winter to attract more customers
- Design marketing campaigns to increase Ufly membership
- Focus on improving the services for individual and small groups

Segment 2: Winter Break Families

- Aggressively market Ufly membership to increase loyalty with incentives to get families to all sign up, (e.g., free meals, t-shirts, flight pins, etc.)
- Send promotional offers before holiday season since this segment travels to holiday destinations
- Provide family package discounts on the SCA website for travel in Winter to retain and attract more families looking for warmer climates
- Partner with other companies to provide Flights + Hotel packages

Segment 3: Price Sensitive Leisure Travelers

- Continue to offer discounts via outside booking channels aimed at families, potentially via vacation package deals
- To increase loyalty, encourage this group to join Ufly Rewards by offering faster rewards for discount travel

Segment 4: Sun Country Loyalists

- Attract more to this group by aggressively marketing Ufly program
- Consider lowering Elite criteria to reward and retain these customers
- Keep this group happy by meeting their needs
- Create more rewards to encourage Ufly Membership

Segment 5: Extended Travelers

- Coordinate with local hospitality businesses to offer exclusive package deals via the Sun Country website
- Offer a more flexible return flight booking process for uncertain return dates
- Promotions, such as double mileages, can be offered to those who fly home (MSP) and book via SCA site to encourage them to apply for membership and fly with Sun Country Airlines more often

NEXT STEPS

✓ Step One - Classify your customers

Step Two – Determine how to best market to each segment

- Make hypotheses about revenue drivers
- Model the hypotheses and test with the sample data
- Modify and retest until hit theoretical thresholds

Step Three – Implement and Adjust

- Test the strategies with smaller populations to gather additional data
- Adjust the models
- Apply learning more broadly

For more details of the coding part of this project, please find [here](#)