Segmentation Analysis
By Nicholas Jones

Metrics

1. **Average_Hotel_Reservation_Period**: average amount of days that buyers occupied a hotel room.
2. **Total_Bags**: total sum of checked bags.
3. **Total_Bookings**: the sum of the number of book seats on a flight and the number of hotel rooms booked.
4. **Average_Discount_Rate_Per_Booking**: the midpoint of the two discount rates divided by the total number of hotel and flight bookings.
5. **Total_Base_Fare**: the sum of the base fare prices.

Methodology

1. Segmentation strategy: **average +/- 3*Margins of Error** using the variable **Vacation_Duration** (the average number of vacation days); in this case, the average is 2.63404 days, and an M.E. is 4.13406 days.

2. Each group has a significant name: “G1” is the group that is closest to the average, “G2” is the 2nd closest group, and etc.

Visualization: Segmentation Bars

- The **first number** on each bar is the customer count.
- The **second number** is the approximate total revenue from flight bookings that is generated by each bar.
- If there is a **third number**, it is the metric of that respective chart.

Insights

1. All of the metrics have averages that are close to **Vacation_Duration**'s average.

2. This means that the average is very low, and most of the customers will be close to **Vacation_Duration**'s average.

3. Since the customers are very closely distributed around the average, this means that not every group will have customers.

4. Customers are mostly in "G1" and "G2," and they generate the most revenue in 4 of the 5 metrics.

5. The number of customers in the first 2 groups can be as high as range from over 25,000 customers to up 50,000 customers.

Recommendations

1. For all 5 perks, TravelTide needs to choose customers that are closer to the average.
2. Elena’s theory isn’t completely valid.
3. TravelTide needs to segment the range (average +/- 3*ME) by segments of the size +/- 1* ME.